

**AN EXPLORATION OF THE MECHANISM BY WHICH
COMMUNITY HEALTH WORKERS AIM TO BRING
HEALTH GAIN TO SERVICE USERS IN ENGLAND**

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Abstract

This thesis presents the findings of a qualitative exploration of how Community Health Workers (CHWs) conceptualise their role in delivering health improvement.

The characteristics of CHWs described in the literature, and their role in health improvement, are examined critically. Interview data from 27 CHWs and 15 others across four CHW services is used to explore the health improvement mechanism from the perspective of CHWs. Theory from a range of disciplines is used to explain it.

The literature provides incomplete accounts of the mechanism. The empirical work suggests that, in the services sampled at least, the mechanism may predominantly be one of social support (informational, instrumental, appraisal and emotional support). Three distinct and essential processes emerge (needs assessment, effective service provision, and client engagement). The analysis reports how who CHWs are, and what they do, appear to be important influences on the social support processes, and that CHWs may be better at delivering this kind of support than traditional professional workers, particularly to socially excluded individuals.

Overall, this work suggests that CHWs may perform a unique role, as experts in social support. The proposed mechanism can be used to inform service design and

evaluation, to maximise CHWs' potential to deliver effective social support to their clients.

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List of abbreviations

AUM	Anxiety Uncertainty Management Theory
BFSW	Breastfeeding Support Worker
BME	Black and Minority Ethnic
CDC	Center for Disease Control
CHW	Community Health Worker
COM-B	Capability, opportunity, motivation - behaviour
CV	Curriculum vitae
GFS	Gateway Family Services
GP	General Practitioner
HPC	Highly person-centred
LPC	Low person-centered
MPC	Moderately person-centered
M&T	Make and Taste
NHS	National Health Service
NIHR	National Institute for Health Research
NVQ	National Vocational Qualification
OED	Oxford English Dictionary
PCT	Primary Care Trust
POW	Pregnancy Outreach Worker
PRIME	Plans, responses, impulses and inhibitory forces, motives and evaluations
SOA	Super Output Area
UK	United Kingdom
UNICEF	United Nations Children's Fund
US	United States
WHO	World Health Organisation
WWP	Working with people

SECTION A)

INTRODUCTION, BACKGROUND AND METHODS

CHAPTER 1) INTRODUCTION

This doctoral thesis presents the findings of a qualitative exploration of how Community Health Workers (CHWs) conceptualise their role in delivering health improvement. It draws on theory from a range of disciplines, along with empirical work with workers and other stakeholders, to produce a new framework for understanding the mechanism by which CHWs aim to bring about health improvement and the function of CHW ‘characteristics’ in this process.

The following pages provide an overview of the CHW approach, and its place in the English and international setting, along with key issues such as effectiveness and cost. It highlights gaps in current understanding, and relates this to the research aims for this work. The chapter ends with a summary of the structure of the thesis.

1.1) Background: Community Health Workers

CHWs are an international workforce, and estimates suggest that there are upwards of five million such workers around the world today.⁽¹⁾ CHWs perform a wide variety of functions in health and social care. The World Health Organisation summarises these as “*health*

education, referral, follow up, case management, and basic preventive health care and home visiting services to specific communities.”(2) The WHO also describes CHWs as delivering ‘*system navigation*’, whereby they assist individuals to make sense of, and access other health and social services. The International Labour Organisation goes further in its definition, including not only preventive and curative services, but also describing CHWs as a bridge between communities and services, specifically referring to communities who struggle to reach services otherwise.(3) Both organisations note that CHWs can deliver services to communities, families, and individuals.

The definitions described above hint at, but do not fully communicate the role of CHWs in the global healthcare landscape. Here, scrutiny of the academic literature in the field is more illuminating; Perry et al, in their 2014 summary of CHW history, practice and effectiveness, divide the aims of CHW approaches into two broad categories:(1)

- CHWs who work to address limited health care resources and access (usually in low-income countries)
- CHWs who work to address health inequalities affecting subsections of the population (usually in high-income countries).

In high-income environments akin to England, the United States (US) provides the most extensive evidence and practice base, and there workers are defined as having three core functions:(4)

- Facilitating healthy behaviour change in individuals and communities

- Conducting outreach
- Advocating for the community and clients with whom they work

A further, though often secondary aim of CHW approaches is the up-skilling and development of members of communities through their recruitment to CHW roles. This is intended to deliver material, health and wellbeing benefits to individual workers and their families, and to enhance the overall skills and capacity in the community. Often, services aim to develop workers to the extent that they move on to other roles, including health and social care professional occupations. For example, Health Trainer policy in England stipulated that workers would be able to do so via a process of 'skills escalation'.(5)

One of the major features of CHW approaches is heterogeneity. It seems that there are few characteristics of workers and roles that are set in stone. While Perry et al state that workers usually work outside of healthcare settings (for example hospitals), and are generally not formally qualified (in that they receive a certificate of training),(1) this is not always the case. The settings, tasks, populations and issues addressed, and approaches to engagement vary widely.(6-8) There are also a vast array of ways in which workers are rewarded and incentivised, trained, developed and supervised.(9-11)

Nomenclature

CHWs go by a wide range of names, as will be illustrated in the literature review, though by far the most common term applied to this occupational group is the 'community health worker' name itself (CHW). While the English context rarely employs the term, it is commonly used to refer to similar individuals elsewhere in the world. This thesis refers to workers as CHWs for consistency, and also because one of the recommendations arising

from this work is that English stakeholders should begin to adopt the CHW moniker in order to facilitate the synthesis and translation of evidence, and to raise the profile of CHWs in Britain. This is addressed further in the discussion section of this thesis.

History of CHW approaches

The first records of workers meeting the broad definitions above were the barefoot doctors of China in the 1920s, though early recruits to the role did not go by this name. (1, 12) They were agricultural workers who undertook health duties in their communities alongside their usual work. Barefoot doctors focused on sanitation, hygiene, vaccination, and rudimentary health care, along with birth and death record keeping, and they were implemented on a wide scale across China in the 1950s.

The barefoot doctor concept was adopted elsewhere in the world during the 1960s and beyond as a response to the inability of formal health systems to meet population need.(1, 12) CHWs were deployed in South America, Asia, and Africa in the second half of the twentieth century.(1, 13) A prominent model of CHW delivery in Central and South America, 'Promotores de Salud' (Promoters of Health), or Promotoras, emerged at this time.(1) Promotoras also operate in contemporary US Hispanic communities.

However, following the expansion in services in the 1960s and 1970s, implementation challenges, the economic climate, the higher than expected cost of CHWs, and political forces resulted in a scaling back of provision in the 1980s.(1) Notable exceptions were Brazil, Bangladesh and Nepal, where significant gains were made in child mortality, some of which has been attributed to CHW activities.(14) The tide has turned since the 1990s, and

the implementation of CHW services has again expanded in international settings. This is in part due to the influence of the WHO'S task-shifting agenda, where traditional professional duties are undertaken by CHWs to relieve pressure on overburdened health services.(15) In addition, evidence that CHWs can effectively contribute to health in low income environments, and to the achievement of United Nations Millennium Development Goals (MDGs), has grown over the past two decades, as illustrated by the 2010 WHO systematic review and recommendations on the subject. (16) However, this review also highlighted that there still remain significant financial, political and practical challenges to implementing CHWs in these settings.

CHWs in high-income environments

The US provides a significant policy, practice and evidence base for CHWs in high-income countries. The first official US CHWs were put in place in the 1960s to serve high-need populations, particularly migrant workers and Native American communities.(13) It is now estimated that there are 175,000 workers operating in the country, a quarter of whom are volunteers.(1) Workers address a wide range of issues, but their focus is generally on 'underserved' populations, with an aim of minimising health disparities (referred to as inequalities in the English context).(17) There has been growing recognition of the value of the CHW role in the US, and significant efforts have been made to document the role and its characteristics. States including Massachusetts and Minnesota have formalised and industrialised the role, recognising it in state health care provision.(18) Similar policy actions are now being observed elsewhere in the US, not least as a result of CHWs being explicitly cited in the Affordable Care Act, as part of an approach to improve healthcare access, reduce costs, and improve quality.(19)

CHWs in England

The English setting is quite different to the US, in that CHWs have not been recognised as a coherent occupational group, and implementation of services has been variable across the nation. The slower evolution of CHW approaches is perhaps a result of the inception of a well-resourced universal health care system in England in the middle of the twentieth century. Arguably there was a less obvious need for CHW approaches to enable deprived populations to access good healthcare, as, unlike in the insurance-based US health system, there were no financial barriers to doing so. Since the latter part of the last century, there has been an increasing recognition of the need to address risk factors for poor health in the England, in addition to providing health services.(5, 20-22) Academics and policymakers identified that for the population to achieve optimum health and wellbeing, and to prevent unaffordable rises in health and social care cost, individuals would have to be ‘fully engaged’ in managing their own health. CHWs are seen as a potential resource to assist individuals in managing their own health and lifestyle risks.(23) There has also been an increased focus on addressing inequalities in health, and CHW approaches have been proposed as part of the solution.(5, 20, 22) These factors have resulted in a range of CHW services being implemented at local and national level. Examples of nationally recognised services are provided in Table 1.

CHW name	Policy	Target group/behaviour	Practice
Health Trainers(24)	First described in Choosing Health white paper, 2004. Health inequalities focus, and workers intended to come from community they serve. Implemented across England.	Deprived and 'hard to reach' populations. Lifestyle behaviour change focus (smoking, alcohol, diet, exercise, sexual health)	Heterogeneous implementation. Volunteer and paid workers. Workers variably matched to client group. Group and 1:1 approaches. Usually 12 session programme. Outreach and referral models.
Community Health Champions(25, 26)	First described in 'Healthy Lives, Healthy People' white paper, 2010. Focus on increasing empowerment, engagement and resilience in communities.	'High health risk' populations. Work with others in own community to address their own health, wellbeing, improve community and social capital, civic participation.	Heterogeneous implementation. Volunteers only. Workers based in own community or workplace and operate within social network. Group and 1:1 approaches. Both outreach and referral.
Expert patients(27)	Launched in 2001 by UK Department of Health. Based on US Chronic disease Self Management Programme.	Generic programme for any patient with a chronic disease. Aims to improve self-management.	Heterogeneous implementation. Volunteer and paid workers. Workers not ordinarily matched to clients but all have a chronic disease. Group approach. Six week course. Referral model.
Breastfeeding Peer Supporters(28, 29)	Delivered by third sector since 1970s. NHS provision gathered pace since NICE infant feeding guidance in 2006. Focus on increasing breastfeeding. Latterly focus on breastfeeding inequalities.	Targeted at pregnant and breastfeeding women and their families. Aims to support women to breastfeed successfully.	Heterogeneous implementation. Volunteer and paid workers. Workers all have breastfeeding experience. 1:1 and group approaches. Variable duration. Referral and self-referral models.

Table 1: Examples of CHW services in England

Effectiveness of CHWs: do they 'work'?

The research presented in this thesis does not focus on an explicit 'effectiveness question' in the traditional biomedical sense. In other words, it does not attempt to determine whether or not CHWs 'work', but rather to unpick the mechanisms by which they may work. However, with growing deployment of CHWs to deliver healthcare services in developed countries it is important to understand their effectiveness and cost-effectiveness compared to more traditionally delivered services. Table 2 presents the evidence 'headlines' for high-income settings, based on existing reviews in the field. (30-32)

Table 2: Examples of studies demonstrating effective (statistically significant) health improvement outcomes by CHWs in high-income settings (NB Strength of evidence listed for systematic reviews only where it is reported by authors)

Author	Year	Country	Type of study	Population	Aim	Relevant findings
Improved client knowledge						
Viswanathan (32, 33)	2009/2010	Inter-national	Systematic review	Any CHW client group	To identify the outcomes and costs of CHW interventions	53 studies reviewed, 5 of which reported knowledge outcomes. 2 provided moderate strength evidence that CHWs improved knowledge around prevention (food labels, dietary fat, and where to access free condoms). 2 moderate strength on awareness of cervical screening need, 1 low strength food label knowledge in diabetic patients.
Improved self-management of hypertension						
Brownstein (34)	2007	Inter-national	Systematic review	Individuals with hypertension	To examine the effectiveness of CHWs in supporting people with hypertension	Significant improvements in blood pressure in 7/8 RCTs, range of BP differences between intervention/control 4-46%. BP reduction 7-10mmHg (systolic) and 2.84-7mmHg (diastolic).
Mortality reduction in hypertensive patients						
Morisky(35)	1983	US	Randomised factorial study	Diagnosed hypertensive 'urban poor' outpatients	To compare five year outcomes with three health education interventions	All-cause 5 year life table mortality rate per 100=12.9 vs 30.2 (" $p<0.05$ "); BP--related mortality rate per 100=8.9 vs 19.0 (" $p<0.01$ ")
Cardiovascular risk reduction						
Krantz(36)	2013	US	Population-based intervention evaluation	Individuals with uncontrolled CVD risk factors	To identify whether a CHW programme would reduce cardiovascular risk	0.8% reduction in Framingham 10 year CVS Risk Score (FRS) (2.0% reduction among those with an FRS greater than 10% at baseline).
Fleury(37)	2009	US	Review	Lay Health Advisor clients	To review and evaluate the roles, evaluation and effectiveness of Lay Health Advisors in cardiovascular risk reduction.	Narrative synthesis of the findings of 20 studies (7 RCTs) for a heterogeneous range of CVD risk factors. Significant improvements in weight loss, BMI, nutrition, smoking, physical activity, BP and cholesterol. No effect sizes reported.
Allen(38)	2011	US	RCT	Diagnosed type 2 DM/CVD/ hypercholesterolemia/ hypertension with unmanaged lipids, HbA1c or BP	To evaluate the effectiveness of a cardiovascular disease risk reduction programme delivered by nurse practitioner /community health worker teams versus enhanced usual care	12 month difference in total cholesterol (19.7 mg/dL), LDL cholesterol (15.9 mg/dL), TGs (16.3 mg/dL), systolic blood pressure (difference, 6.2 mm Hg), diastolic blood pressure (3.1 mm Hg), HbA1c (0.5%)
HbA1c reduction in diabetic patients						
Lujan(39)	2007	US	RCT	Mexican American type 2 diabetic patients	To determine the effectiveness of promotoras on glycemic control, diabetes knowledge, and diabetes health beliefs	Significant improvement in mean HbA1c at 6 months. Intervention 8.21 to 7.26, Control 7.71 to 8.01, $P<0.001$.
Norris(40)	2006	Inter-national	Systematic review	Predominantly US minority with type 2 diabetes	To examine the effectiveness of diabetes-related interventions involving CHWs.	18 studies, 8 RCTs. 4 studies (1 RCT) reported significant reductions/between group differences in HbA1c, range 0.3% to 4%.

Author	Year	Country	Type of study	Population	Aim	Relevant findings
Shah(41)	2013	US	Review (not systematic)	Type 2 diabetics	To review recent studies published since Norris' review, and explore the role of CHWs in diabetes care.	Reviews studies that have emerged since Norris review. One RCT significant -0.5% reduction at 12 months, a second showed 0.8% reduction at 6 months(significance not reported).
Improving adherence to antiretroviral medication for HIV						
Kenya(42)	2011	US	Systematic review	HIV patients	To identify effectiveness of CHWs at improving adherence to HIV therapy in the US	16 studies reviewed. Primary measure of adherence viral load suppression. Improved viral load suppression in 13/16, 7 of which were significant (P<0.05) (effect sizes not consistently reported).
Increasing appropriate use of health services						
Viswanathan (32, 33)	2009/2010	International	Systematic review	Any CHW client group	To identify the outcomes and costs of CHW interventions	53 studies reviewed. 15 moderate strength evidence of improvements in heterogeneous range of outcomes in health care use behaviour. This included follow up for hypertension (1 study), mammograms (11 studies), TB follow up (1 study), emergency asthma service use (2 studies). Two studies lower strength evidence for maternity care and hypertension.
Increasing cervical screening uptake						
Viswanathan (32, 33)	2009/2010	International	Systematic review	Any CHW client group	To identify the outcomes and costs of CHW interventions	53 studies reviewed. Low quality mixed evidence for colorectal and cervical screening uptake .
Increasing mammography uptake						
Viswanathan (32, 33)	2009/2010	International	Systematic review	Any CHW client group	To identify the outcomes and costs of CHW interventions	53 studies reviewed. Moderate strength evidence for improved uptake of mammography screening in 11 studies.
Wells(43)	2011	US	Systematic review and meta-analysis	Women >40 no history of breast cancer	To identify whether CHWs improve mammography rates in the US.	24 studies included, 18 in meta-analysis. Statistically significant increase in risk ratio screening in intervention group in meta-analysis of all study designs (RR 1.06, CI 1.02-1.11, P=0.0003). Effect remained in RCT-only analysis (10 studies) (RR 1.07, CI 1.03-1.12, P=0.0005) but not with pooled data from quasi-experimental studies (8 studies).
Promoting breastfeeding						
Lewin(44)	2010	International	Systematic review and meta-analysis	Mothers and children	To identify the effectiveness of CHW interventions on maternal and child health and infectious disease outcomes	82 studies identified with much heterogeneity. 18 breastfeeding studies identified, 10 in high income countries. 12 studies included in meta-analysis for initiation of breastfeeding. Aggregate RR 1.36 (CI 1.14-1.61) but highly heterogeneous (I2=91%, p<0.00001). Any breastfeeding up to 12 months postpartum (12 studies), aggregate RR 1.24 (CI 1.1-1.39) but again heterogeneity (I2=69%, p<0.0002). Exclusive breastfeeding up to 6 months postpartum (10 studies) aggregate RR 2.78 (CI 1.74-3.44, p<0.0001), with high heterogeneity (I2=87%, p<0.00001).
Jolly(45)	2012	International	Systematic review and meta-regression	Mothers and infants	To examine the effect of setting, intensity, and timing of peer support, on breastfeeding	17 papers reviewed, 15 included in metaregression, 9 of which in high income countries. In high income countries peer support reduced the risk of not breastfeeding by 7% (RR 0.93, CI 0.87-1.00) and the risk of non-exclusive breastfeeding by 10% (RR 0.90, CI 0.85-0.97). The effect was significantly larger in low and middle income countries.UK studies showed no significant effect.Higher intensity and postnatal support both had an increased effect on any breastfeeding, but not exclusive breastfeeding.

The evidence base for the effectiveness of CHWs in high income settings has some quality issues.(1) In part the problem is one of design: many studies describe individual services but do not necessarily report health outcomes and/or offer a comparator group. More often however, the challenge for evaluation and especially for meta-analysis and data synthesis is in understanding precisely who the CHWs are so that like can be compared with like. Published case reports may not provide sufficient information about the CHWs nor provide reference to the original service specification documentation. Even where detail is provided, the range of terms used to describe the CHWs is substantial but inconsistent (see Literature Review). Where there is commonality in terminology – for example many interventions describe the workers as being ‘lay’ or as a ‘peer’ – reading of the literature soon reveals inconsistency in use of the same terms.

Cost of CHWs

There is limited evidence around the cost of CHW approaches, and existing reviews have not identified any conclusive evidence that CHW interventions are cost-effective.(30, 33) Certainly, while they are often viewed as a cost-saving measure, they have been found to be more costly to implement than anticipated, even where volunteer workers are used.(46) Cost-effectiveness evidence is of generally poor quality, and the challenges in measuring individual intervention components and attributing savings to the ‘softer’ outcomes of CHW interventions is an important factor here.(30, 33, 47) The cost savings elsewhere in the health and social care economy, and more widely in society are also difficult to quantify and have not been reported in the CHW context.(30)

1.2) Aim and Rationale for the Thesis

This thesis aims to explore the mechanism/s by which CHWs aim to bring health gain to service users in England

CHW interventions are an interface between the social, psychological and medical worlds, yet much research and practice to-date has only focused on the rudimentary structure and outcomes of services, and evaluating them as one would a medical intervention without consideration of the mechanism/s by which the interventions are expected to bring health gain. As early as 2000, Cohen et al in their book 'Social Support Measurement and Intervention' set out the need for researchers and practitioners in the CHW field to state clearly the *social* mechanisms of interventions, stressing the importance of describing the nature of the relationship between CHWs and the people with whom they work.(48) However, this key text, and related publications which summarise the theory of social relationships, and how it can be applied to interventions, do not feature prominently in the empirical CHW literature.

This thesis addresses Cohen's challenge and seeks to scrutinise some of the assumptions about CHWs, and to get inside the 'black box' of client-CHW interactions in order to throw light on the mechanism/s through which these interventions might deliver health improvement. The thesis is also influenced by recent developments in health psychology and public health. In 2008, Abraham and Michie established a taxonomy of behaviour change interventions in health promotion(49), which has since been further refined.(50) This work was a response to the heterogeneous and inconsistently reported use of

psychological behaviour change techniques in the literature. It identified 26 techniques that may be utilised in behaviour change interventions, which coherently and consistently accounted for nearly all of the approaches described in the literature. The authors recommended that the taxonomy should be used to define interventions in future publications, to provide clarity for researchers and practitioners in understanding, comparing and replicating work across populations. This important work demonstrates how it is possible to simplify and structure complex health improvement approaches, to provide a system that can aid understanding, research and practice. There are clear parallels with my own work with one outcome of this thesis being a taxonomy of CHW programme characteristics that can be used in the development and reporting of these approaches.

1.3) Objectives

By reviewing the literature, and from gathering and interpreting the accounts of CHWs and other stakeholders, this thesis will:

- i. Identify the key characteristics of CHWs
- ii. Describe the key components of the mechanism by which CHWs aim to deliver health improvement across a range of CHW approaches/services
- iii. Identify how CHW characteristics in i) relate to the suggested mechanism of health improvement in ii)

- iv. Compare and contrast the CHW characteristics and mechanism across a range of CHW approaches / services
- v. Synthesise the published findings and empirical work to build a theoretical perspective which accounts for the mechanism by which CHWs aim to bring about health improvement

1.3) Structure of the thesis

The main body of work is organised into three sections, A-C, and thirteen chapters, 1-13.

Section A) presents the background and methods for the study, including:

Chapter 1 – The introduction

Chapter 2 - An exploration of the literature with respect to the research aim. This review provides a critical analysis of nomenclature and evidence concerning CHW characteristics and the health improvement mechanism.

Chapter 3 - An overview of the methods; it explains the research aims and objectives, alongside discussion of the philosophical and methodological approach taken in this work. It goes on to detail the methods adopted in execution of the research, and the relevant methodological considerations.

Section B), Findings, includes:

Chapter 4 - A summary of the characteristics of the participating services and subjects

Chapter 5 - An introduction to the analysis

Chapter 6 - Outlines the characteristics of CHWs which were deemed to impact on the CHWs' intended health improvement mechanism

Chapter 7 - Presents the case for social support being the primary mechanism of action in the services

Chapter 8 - Explores how CHW characteristics (from Chapter 6) might impact upon the provision of appropriate social support by CHWs

Chapter 9 - Explores how CHW characteristics (from Chapter 6) might impact on client engagement with social support provided by their CHW

Chapter 10 – Summarises the findings

Section C) discussion and concluding remarks, includes:

Chapter 11 - The discussion, including: a summary of key findings; methodological strengths and limitations; my own personal reflections; how the work adds to existing knowledge in the field; recommendations for further research; and implications for policy and practice.

Chapter 12 - Concluding remarks

References and appendices are included at the end of the report.

CHAPTER 2) LITERATURE REVIEW: CHW CHARACTERISTICS AND CHW ROLES

This chapter explores published accounts of CHWs, and the mechanisms by which they are intended to improve health. It also provides some theoretical and empirical perspectives from related areas of research where the CHW evidence is lacking.

Specifically, in reviewing the literature I sought:

- To identify the key literature relating to CHW, with a focus on high income countries
- To identify and to critique how CHWs and CHW activities are described in the published literature
- To identify any theory or empirical evidence in the published literature which explains the mechanism of CHW health improvement, and to critique the utilisation of theory and evidence in this context
- To identify gaps in descriptions of CHW approaches, and their mechanism of action, and to recommend a way forward for the field

2.1) identification of the Key Literature

The main evidence searching activity for this review was undertaken in two parts; Phases 1 and 2. Phase 1 was my own scoping review of a wide range of primary and review work, conducted in 2010. Phase 2 was conducted between my two periods of maternity leave (June 2011-March 2013), and involved a review of key papers identified by Jane South and colleagues at Leeds Metropolitan University (now called Leeds Beckett University) as part of

their NIHR-Funded People in Public Health project, plus new evidence published since Phase 1.(51) Key papers identified after this period are included in the discussion section of the thesis.

2.1.1) The scoping review – Phase 1 of the literature review

Early on in the doctorate, in 2010, I conducted a scoping review of the literature and screened a wide range of papers for reference to CHW characteristics, and underlying theory, in order to identify who and what CHWs are, and how they are intended to improve health.

Mays, Roberts and Popay define scoping reviews as those which *“aim to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available.”*(52) Arksey et al describe four reasons for conducting a scoping review:(53)

“To examine the extent, range and nature of research activity

To determine the value of undertaking a full systematic review

To summarise and disseminate research findings

To identify research gaps in the existing literature”

The scoping review presented in this chapter was conducted in order to examine the extent, range and nature of research activity, and identify gaps in the existing literature, namely to scope the reported characteristics of CHWs and CHW roles, and what role they play in the health improvement process, along with the theoretical underpinnings of CHW models. Initial, focused keyword searches relating to my research questions had yielded

little evidence, yet I had read accounts of the concepts of interest embedded within studies that focused on separate research questions (often regarding CHW effectiveness).

Scoping reviews bring together evidence from broad sources, and can be used to reach a higher level of “*conceptual clarity*” in the area of interest.(54) This aligned well with my own review aims.

It is worth noting that there are a number of ways in which scoping reviews differ from systematic reviews: the differences listed here are taken from the work of Arksey and O’Malley.(53) Firstly, scoping reviews do not focus on very specific review questions. In the work presented here the questions are very broad and explorative, and making a scoping review appropriate. A second difference between scoping and systematic reviews is that the former do not focus on discrete study designs, such as randomised controlled trials. The review questions in this scoping review of the CHW literature do not lend themselves to a focus on discrete study designs: my pre-existing knowledge of CHW research had already uncovered some interesting insights into the research questions described in a wide range of published research and academic commentary, so scoping methodology is appropriate here. Finally, scoping reviews do not focus on the quality of included studies, compared with systematic reviews where it is of high importance. Again, my early insights into the CHW literature suggested that while quality was highly variable, rejecting lower quality papers may result in important concepts being missed.

At the time of Phase 1 of the literature review for this doctoral work, scoping review methodology was emerging, though authors at the time reflected that there was heterogeneity in the approaches and descriptions of the exact nature of a scoping review.(53, 54)

Broadly, the approach involves six steps: identifying initial research questions; identifying relevant studies; study selection; charting, collation, summarisation and reporting; and finally a consultation stage, which is described as optional.(53) Initial research questions were very broad, focusing on the definitions and descriptions of CHWs and CHW activities and references to theory or evidence addressing the mechanism by which CHWs improve health. The approach to identifying relevant studies (the search strategy) and study selection (screening of identified studies for inclusion/exclusion) is described later in this section of the thesis. A data extraction form was used to chart the relevant findings from the selected studies (see Appendix 1). The extracted data was reviewed, collated, and reported and is presented in the findings section of this chapter. No consultation was undertaken in the review presented here: this is explored further in the discussion section of the thesis (see page 304)

Before commencing the review in earnest, in order to scope the volume of literature available, an initial broad Medline search was conducted using search terms informed by Lewin et al in their 2005 systematic review of lay workers in community health (update published in 2010),(55) with the addition of additional relevant search terms, for example 'health trainer' (see Table 3). Searches were limited to English language papers. Due to the

large volume of literature, a more focused review was conducted of papers published subsequent to Lewin’s review; i.e. between January 2005 and October 2010 (when I went on my first period of maternity leave). Searches were conducted of the databases listed in the flow chart in Figure 1, with 3491 papers identified for screening. Additional literature was identified through reference lists from identified papers, contact with colleagues in the field, and by searching Google and Google Scholar. I was responsible for conducting all searches, screening and review activities.

barefoot doctor	expert patient	lay members
birth attendant	health attendant	lay personnel
breastfeeding support worker	health trainer	lay support
breastfeeding worker	health worker	lay visitor
community health aides	home health aides	lay worker
community health worker	lay aide	paraprofessional
community networks	lay attendant	voluntary workers
community worker	lay health worker	

Table 3: CHW search terms for 2010 literature review

The abstracts from these papers were first screened for relevance to the wider review using the criteria in Box 1, All reference types were included, including editorials, think pieces and theoretical papers.

Box 1: inclusion criteria for papers identified

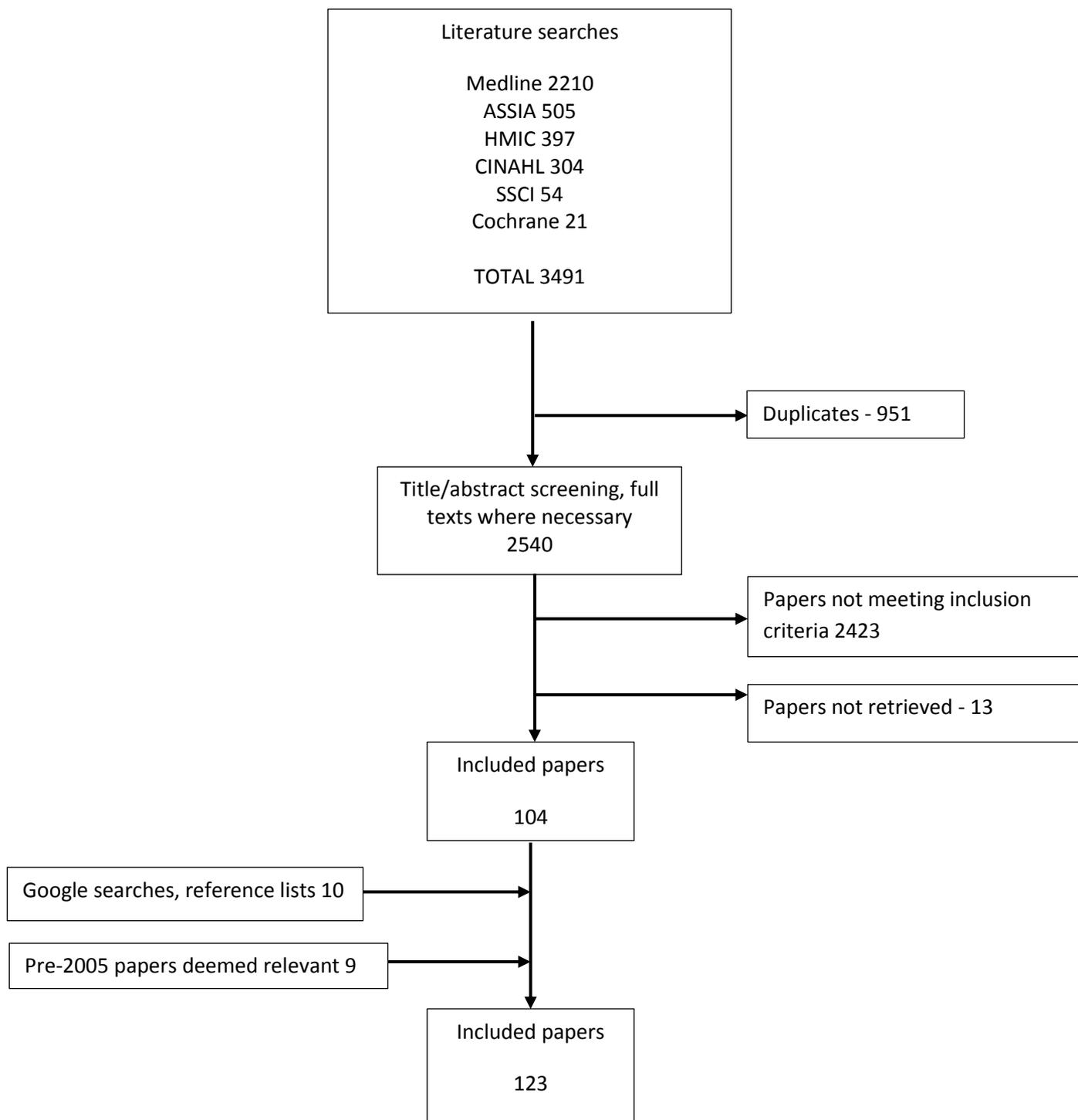
- Describes/discusses the use of CHWs/lay/peer/paraprofessional individuals
- Workers target adults
- Workers seek to improve client health as primary outcome
- Workers are community-based (not hospital)
- Setting: in the UK/US/Australia/Canada/New Zealand (as the doctorate explores interventions in England, only similar high income countries were included)

Identified papers were then obtained, where available, and screened further for relevance to the following criteria:

- Definitions and descriptions of CHWs and CHW activities
- Theory or evidence addressing the mechanism by which CHWs improve health

A table of studies included in Phase 1 is presented in Appendix 2. No quality assessment was conducted as this review did not aim to assess the efficacy of interventions, in line with previously described scoping review methodology. I repeated these searches at intervals over the coming months in order to identify any new papers, and received Zetoc alerts by email notifying me of papers that included keywords.

Figure 1: Flow chart for Phase 1 of literature review

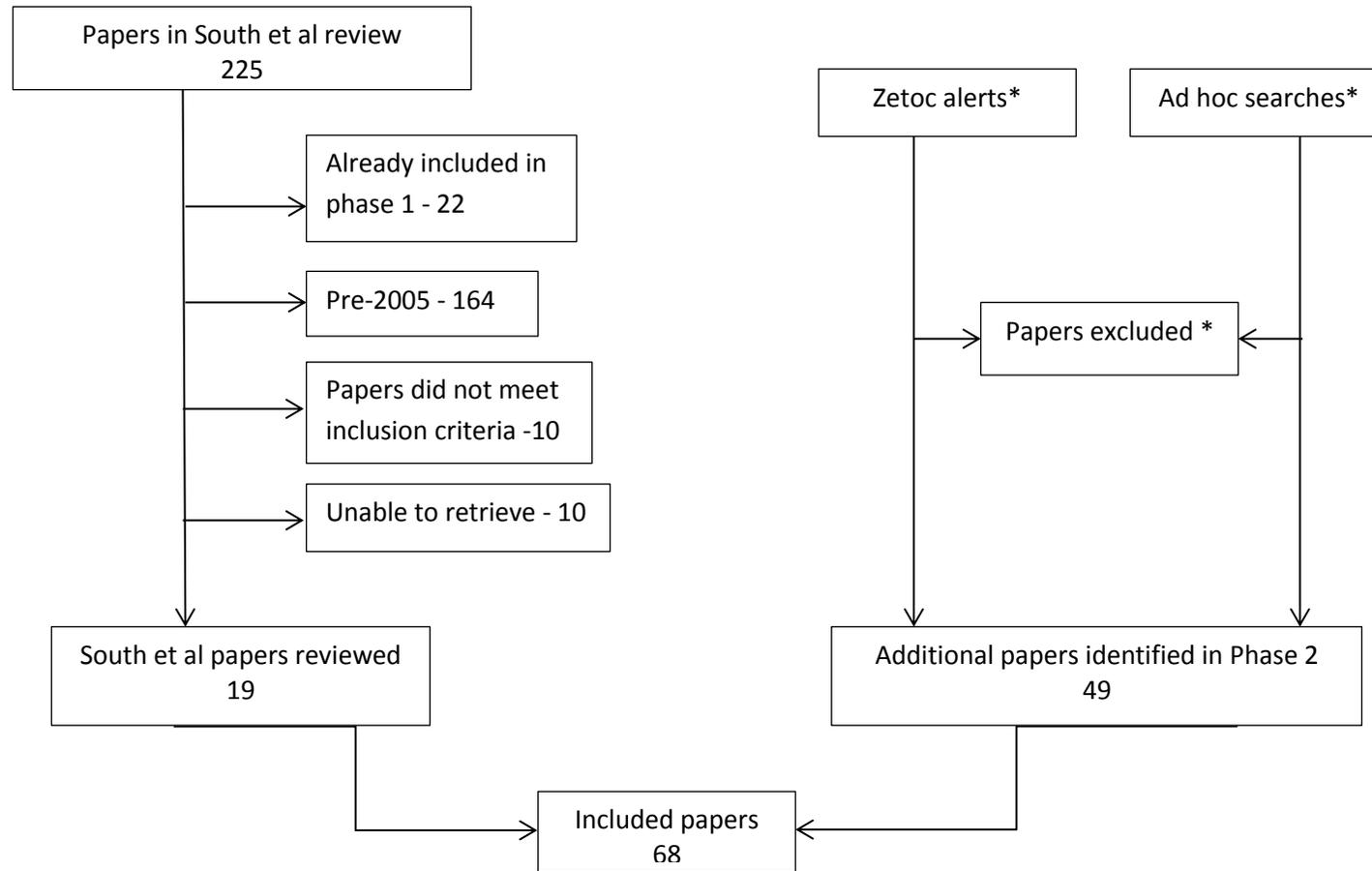


2.1.2) Review of the Key Papers identified by South et al: Phase 2 of the literature review

Following the original literature review in 2010, it was necessary to update it later in the doctoral study period. In the intervening period the 'People in Public Health' (PiPH) project published its final report and accompanying book.(51, 56) This work, funded by the National Institute for Health Research, sought to explore how health improvement can be delivered by members of the public, with a focus on volunteer and 'lay' workers. As part of this, the research team undertook a comprehensive review of the literature. On reading it, I quickly discovered that while many the papers I had identified as relevant from my earlier scoping search had also been deemed relevant by South et al, they had also included some primary literature I had not yet identified and which was potentially relevant to my own work.

Discussion with my supervisors led me to the conclusion that attempting to replicate South and colleagues' search was not feasible given my limited capacity and the resources required. Indeed, given the search had already been undertaken, to repeat it simply to say I had done it for the thesis seemed absurd. My supervisors advised I acknowledge the work of South and then direct my efforts to exploring the additional literature identified by the People in Public Health team and synthesising it with the findings of my own scoping review. In order to ensure that I did not miss any newly published literature relevant to my thesis, I continued to use Zetoc keyword alerts and regular searches of Google Scholar and Pubmed. See Figure 2 for a flow chart and Appendix 3 for a table of included studies for Phase 2.

Figure 2: Flow chart Phase 2 of literature review



*number not recorded, see thesis discussion where this limitation is addressed

2.2) Analysis and synthesis

All retrieved papers were scrutinised with respect to the review objectives stated earlier.

The findings concerning descriptions of CHWs and CHW activities logically fell into two 'new' categories. These were:

- Who CHWs were (their 'person' characteristics)
- What CHWs did (the 'role' characteristics).

Following the completion of the fieldwork for this thesis and data analysis, I refined further the conceptualisation of these 'person' and 'role' characteristics. The following section is therefore the result of revisiting the literature review, and applying these modified categories to the existing published work during the final thesis writing process. The mechanisms of health improvement described in the literature are presented alongside the relevant person and role characteristics. A narrative approach has been taken to the synthesis and reporting of the data.(57)

2.3) Findings

In general, the CHW literature provides a broad, rather than deep, picture. A multitude of interventions is described, and outcomes reported (though frequently without a comparator). A wide range of theories, models and concepts are employed in the design and implementation of programmes, but the theoretical pathways are incomplete, with authors rarely accounting for, or testing, the intended mechanism of action. In particular, there is scant reporting of the characteristics of CHWs themselves, and their relative

importance in the change pathway. In short, the majority of research focuses on describing the ‘what’ rather than analysing the ‘how’ or ‘why’ in the design, delivery and evaluation of CHW interventions.

The review findings are presented as follows:

Section 2.3.1. CHW nomenclature

A summary of the range of terms used to describe CHWs is presented in order to illustrate the breadth of, and heterogeneity of CHW interventions reported in the literature

Section 2.3.2. CHW ‘person’ characteristics: who are CHWs as individuals?

The key CHW characteristics reported in the literature are presented and their relevance to the mechanism of health improvement is explored. Within this section the concept of ‘CHW similarity to the client’ receives particular attention, and the concepts of ‘lay’, ‘peer’, and ‘of the community’ are critiqued. An alternative approach to conceptualising client-worker similarity is proposed.

Section 2.3.3 CHW role characteristics: what do CHWs do?

The CHW ‘role characteristics’ are described and explored with respect to their function in health improvement

Section 2.3.4 Overarching mechanisms in the literature

The sole example of an overarching mechanism for CHW health improvement in the literature is discussed

2.3.1) CHW nomenclature

Before exploring the characteristics of CHWs and CHW roles, it is important to understand that they are not a homogeneously-termed group of workers. There is a marked variety of names for CHWs, and while the terms used often provide some clue to the characteristics of the role or worker, there is still variation within groups (for example, there are many interpretations of who and what a breastfeeding peer supporter is). Existing reviews have provided extensive lists of CHW names, and through my own literature review I identified some additional terms. These are listed in Table 4.

Table 4: Terms used to describe CHWs in the literature

(the use of highlighted terms 'peer', 'lay' and 'community' is critiqued over the following pages)

Abuelas	Health Aides	Peer dads
Allied health personnel	Health education aides	Peer educators
Anganwadi workers	Health Education Workers	Peer group leaders
Aunties and Uncles	Health Mentor	Peer health advocates
Baabas	Health Promotion Volunteers	Peer health coaches
Barefoot doctors	Health Support Workers	Peer health educators
Befriender Facilitator	Health Trainers	Peer health workers
Breastfeeding supporters/peer supporters	Hidden volunteers	Peer informants
Bilingual health advocates	Indigenous outreach workers	Peer leaders
Birth companion	Indigenous workers	Peer nutrition educators
Buddies	Informal leaders	Peer outreach educators
Community champion	Informal medical practitioners	Peer outreach workers
Community development worker	Inmate peer educator	Peer researchers
Community Food Worker	Labour coaches	Peer supporter
Community Health Advisor	Lady Health Workers	Peer support volunteer
Community Health Advocate	Lay advisors	Peer volunteer
Community Health Agent	Lay (breastfeeding) counsellors	Personal coach
Community health champion	Lay carers	Popular opinion leaders
Community Health Educators	Lay food and health workers	Portera
Community Health Outreach Worker	Lay health advisors	Prisoners
Community Health Provider	Lay health educators	Professional outreach workers
Community Health Representative	Lay health home visitors	Promoter
Community Health Support Workers	Lay health leaders	Promotores
Community Health Volunteer	Lay health promoters	Public health aides
Community Health Worker	Lay health volunteers	Relais
Community Mother	Lay Health Workers	Support workers
Community lay health leader	Lay helpers	Street outreach worker
Community lay health worker	Lay home visitors	Therapeutic assistants
Community mentor	Lay navigators	Village family planning volunteers
Community nutrition assistants	Lay patient navigator	Village health volunteer
Community outreach worker	Lay supporters	Village Health Worker
Community Reproductive Health Workers	Link workers	Voluntary lay leaders
Community researchers	Listeners	Volunteers
Community Support Workers	Local people	Volunteer befriending
Conserjeras	Natural helpers	Volunteer educators
Doulas	Non-paid community development workers	Voluntary lay leaders
Family Health Worker/Advisor	Non-professionals	Volunteer outreach workers
Family outreach worker	Outreach workers	Volunteer peer health educators
Family support centre workers	Paid community development workers	Volunteer workers
Family Support Workers	Paraeducators	Vocational Education and Training workers
Female health workers	Paraprofessionals	Voluntary Trained Community Health Activist
Grandmothers	Patient Navigators	Young latino promotoro
Group counsellors	Peer coach	Youth peer educators
Health advisors	Peer counsellor	

2.3.2) CHW ‘person’ characteristics: who CHWs are

In this section I will explore several aspects of ‘who CHWs are’.

2.3.2.1) CHWs are ‘lay’ people, ‘peers’ and ‘of the community’ that they serve

The majority, but not all CHW programmes, were described as recruiting workers who had some degree of shared characteristics with the client group served. Authors often refer to this in terms of being ‘lay’, ‘peers’ of their service users, or members of the same ‘community’. Here I will critique the terms ‘lay’, ‘peer’ and ‘community’, and address key concepts of shared identity and cultural competence.

2.3.2.1.1) ‘Lay’ workers

Some of the confusion around the terms used to describe CHWs may arise due to these terms also being in common use in more general discourse. In common parlance, the word ‘lay’ is an indication of the non-professional or non-specialised nature of the person in question. The word originates from the Latin for ‘of the people’, and was first used to describe the ‘laity’ in the Church. Some examples of the context in which ‘lay’ applies are:

- ‘Lay preachers’ have not been ordained into the clergy (*non-professional*)
- ‘Lay members’ in public bodies provide a *non-professional perspective*, and act as *representatives of ordinary people* served by the organisation (though often with some expertise as a ‘professional lay person’)(58)
- Describing something in ‘layman’s terms’ is to provide an explanation that can be understood by those with *no expertise or professional knowledge* of the subject.

The above uses are not necessarily consistent with one another. 'Lay preachers' and 'lay members' are likely to have some training or background which lends itself to their role, while a 'lay' explanation could be expected to be understood by someone with no expertise whatsoever.

In the context of health improvement, 'lay' status may be a route to useful knowledge about the client group. Popay et al suggested that 'lay knowledge' is largely undervalued by health and social care authorities and professionals, but that it can have a pivotal role in delivering appropriate support to individuals, particularly those in excluded groups.(59) They defined 'lay knowledge' as *"Rooted in the places that people spend their lives, [which] has theoretical significance for our understanding of the causes of health inequalities,"* and as something which *"Represents a 'privileged' form of expertise" that is distinct from professional or scientific 'experts'.* The relationship between 'lay' knowledge and appropriate support is not fully explored in the CHW literature, though there are some insights; for example, Springett et al found that 'lay' people may be better placed to provide information to clients, and that professionals can use jargon which is difficult to understand.(60)

Another justification for the use of 'lay' individuals is because they are assumed to be more similar to their clients than traditional professionals, and have some degree of 'shared identity'. In particular, it has been suggested that professionals are often perceived as *"outsiders"*, resulting in anxiety, discomfort about discussing issues, and a lack of trust. (61-63) Abrahamsson et al's work has suggested that professionals can struggle with performing a facilitator role as they are more habituated to an expert role.(64) Behaviour

associated with an expert professional role has been noted to be less attractive to some CHW clients, in that professionals tend to be more dictatorial (tell clients what to do), or give unrealistic advice, and professionals have also been reported as less respectful compared with CHWs,(65-68) and of a less friendly or caring disposition.(69, 70)

Defining 'lay' workers in terms of 'not being a professional' has been picked up by others. South et al defined 'lay' workers as "*members of the public who take on roles within public health programmes but who do not receive professional or clinical training and are not employed as professionals.*"(31) Similarly, Lewin et al defined 'lay' workers as participating in healthcare delivery but not having professional qualifications (though highlighted that they had 'on the job' training).(55) In other words, it seems that the important characteristic of laity is the non-professional nature, and in this sense workers are defined by 'what they are not' rather than there being a clear definition of exactly what they are. However, even here the lines are blurred with studies reporting that 'lay' recruits were not from entirely untrained backgrounds, having had prior experience in community roles, or having received training in a similar field.(34, 71)

Eng et al, and subsequently Dennis have explored the impact of training and of worker expertise.(72, 73) In this sense expertise refers to knowledge and skills about health, science and service delivery over and above what would be expected of a non-trained person, as opposed to the knowledge and skills about the client experience that Gilkey et al have referred to as 'experience-based expertise'.(74) Eng and colleagues proposed a continuum of 'natural helping' to paraprofessional helping (see Figure 3). Similarly, Dennis' work exploring the 'peer concept' describes it conceptually as shown in Figure 4, where

more expert, trained ‘paraprofessional’ workers are at the professional end of the spectrum, and less expert, more community-focused ‘natural helpers’ are at the ‘lay’ end of the spectrum, with only family and friends considered more ‘lay’. Natural helpers tend to be volunteers, and paraprofessionals more trained, paid, and often performing more complex tasks that might traditionally have been undertaken by professionals. Dennis references Eng’s work, but these two diagrams have not, to my knowledge, been presented alongside one another in the literature.



Figure 3: Eng’s continuum of Lay Health Advisor helping(72)

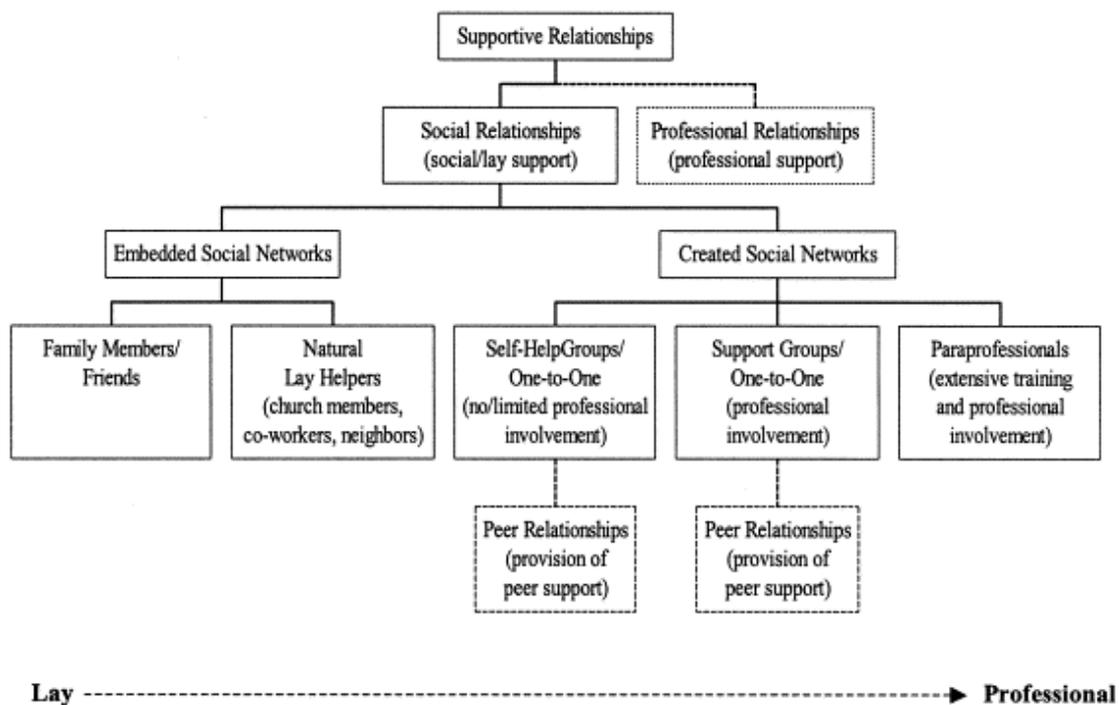


Figure 4: Dennis’ lay-professional spectrum(73)

An important consideration raised here is the potential impact of increasing expertise in CHWs, and its subsequent impact on function if being 'lay' is deemed to be a necessary characteristic of an effective intervention. (72, 73, 75) It has been suggested that training workers may distance them from their target population and its needs, and prevent the workers operating as intended. In the Scoping Study of the Health Trainers Initiative we also found that some workers were observed to become 'professionalised' (keen to gain expertise, credentials, and adopt the sociocultural norms of their employing organisation such as dressing in office wear and carrying a briefcase) and that this impacted on engagement with targeted client groups. (71, 76)

In the US three quarters of CHWs are paid (the proportion in England is not known). (9)

There are some important considerations regarding the impact of volunteer status on CHW activities. Cherrington et al found that volunteer workers were more flexible and autonomous in their approach, and were more client and community-orientated, arguably placing them further away from the 'paraprofessional' end of the CHW spectrum. (9)

Conversely paid workers were obliged to follow their employer's agenda more closely, and to be more orientated towards their organisation. These differences appear to suggest that volunteer workers are potentially 'more lay', in that they are closer to the clients they serve, rather than to the professionals they work alongside. However, in England, volunteers are often white, middle class, and retired: (77) depending on the target population for a service, this may have implications for the similarity of volunteers to their clients.

2.3.2.1.2) 'Peer' workers

In Table 4 there are 22 different types of worker that incorporate the word 'peer'.

However, as with 'lay' the term 'peer' is problematic having multiple meanings. Are 'peers' friends, or people with whom we associate, or people we do not know who happen to be engaging in similar activities in the same place?(78)

The word 'peer' originates in the Latin for 'equal'. Similarly, modern definitions include this notion of equality, often defined by age, gender and social status in dictionary descriptions.(79, 80) In the CHW literature, the concept of workers 'being equal' to clients is extended to include not only personal demographics, but also aspects of behaviour and health experiences (see Box 2).

Box 2: Dimensions of CHW/client 'equality'

- Shared demographic characteristics: e.g. gender, age, migrant status, ethnic minority status, language, sexuality, language, area of residence, income/deprivation
- Shared health experience: e.g. pregnancy, chronic disease
- Shared behaviour experience: e.g. smoking, breastfeeding, healthy eating, exercise

Dennis defines a 'peer' supporter as: *"a created social network member who possesses experiential knowledge of a specific behaviour or stressor and similar characteristics as the target population."*(73) The 'created social network' referred to the fact that the 'peer' worker is not necessarily part of a natural social network, for example a church or circle of friends, but belongs to a service created specifically to reach the target population. Dennis went on to conduct a concept analysis of 'peer' support, concluded that the use of the term was *"vague and highly variable"*, and argued for greater reporting clarity in the literature.

However, South et al's works published some 8 years later suggests that the term 'peer' is still not used in a consistent way,(81) an observation noted by others.(45)

Recently, Simoni et al have proposed a further refinement of the 'peer' definition (see Box 3).(82) However, there are many CHWs who fit with this definition, yet are not consistently referred to as 'peers'. For example, Health Trainers in England are not classified as 'peers' in policy and practice, yet they are recruited due to shared characteristics, circumstances or experiences with the client group, and this is seen as a key feature of these workers.(5, 71) Dennis also highlights the fact that the term 'peer' does not necessarily apply to the full range of CHW models, arguing in her analyses that 'peer' support approaches lie somewhere between the two extremes of Eng's lay-paraprofessional spectrum.(73)

Box 3: Simoni et al definition of a 'peer'

- Peers share characteristics, circumstances or experiences, and whether or not an individual is considered a peer is highly context-dependent
- Peers perform similar tasks to non-peers, but their 'peeriness' makes them more effective
- Peers do not have professional training or status
- Peer work involves an organised, intentionally deployed support function, rather than individuals working opportunistically in their social network

From Simoni et al (82)

South et al found that recruiting workers who are also 'peers' is of variable importance to clients.(81) They speak of a need for workers to have "*sufficient in common*" with the target population but found little consensus as to what this means in practice, even among individuals in the same intervention. Durantini et al suggest the absence of consistency in terms of the definition and relative importance of 'peer' characteristics in the literature reflects what occurs in practice; that is managers of 'peer' led interventions recruit workers who are matched in some way with the target group according to the managers' personal

beliefs about what 'will work' and without recognition of the need to test such assumptions.(83) These assumptions tend also to focus on uni-faceted concepts of client identity. This is likely to be an over-simplification; for example Shiner has reported that while shared experience or demographics may result in shared identity between client and worker, identity is a flexible concept, with individuals being capable of holding a number of identities, the relative importance of each varying depending on the situation, with none taking absolute priority.(78)

Evidence from the doctor-patient demographic concordance literature suggests that while crude definitions of similarity (for example age, ethnicity) are associated to some degree with an improved relationship, it is what Street et al call 'perceived personal similarity' that is the real predictor of an effective relationship.(84) Perceived personal similarity reflects patients' sense that they share beliefs, values and communication style with their doctor, and this is associated with increased trust, satisfaction, and intention to adhere to medication. It is possible that the same is true in CHW-client relationships, and shared experience or demographics are simply a proxy for personal similarity.

In the CHW context, some clients have themselves expressed a preference for similar workers,(63, 65, 85-88), and stated that they feel more comfortable with them,(89). Similarity has been observed to impact on client engagement,(90, 91) though the mechanism is not understood. One possibility is that similarity may enhance the likelihood of shared experiences and that this allows workers to share their own stories with clients in a way which might help them.(92) It also allows workers to act as role models who have

'been there' in the same situation as the client and who have negotiated a successful outcome. (92-94)

2.3.2.1.3) 'Community' workers

Researchers and practitioners frequently refer to 'lay' workers as being drawn from the community in which they work. (8, 10, 55, 56, 95) and the WHO suggests "*Community health workers should be members of the communities where they work, [and] should be selected by the communities.*" (96) Defining 'community' however is not without difficulty.

The US Center for Disease Control (CDC), in its work on community engagement outlines four groups of factors that community members may share (Box 4). CHWs who are members of the same community as their clients are widely reported to have specific knowledge and skills, such as language, and to provide 'culturally competent' support to clients. Conceptual issues concerning cultural competence will be tackled shortly, but in essence community members' knowledge and skills are used to provide appropriate, tailored support and information to clients.(31, 97) Members of the same community may feel that they have a shared identity and a perceived credibility that brings advantages in delivering outcomes. Community members have also been described as being particularly well-placed to deliver community development approaches in health promotion, where they work with others to empower individuals and build resilience in the target population.(97)

Box 4: CDC definition of factors which communities may share

- People (socioeconomics and demographics, health status and risk profiles, cultural and ethnic characteristics, including spoken language)
- Location (geographic boundaries)
- Connectors (shared values, interests, motivating forces)
- Power relationships (communication patterns, formal and informal lines of authority and influence, stake holder relationships, resource flows)

From Centers for Disease Control (98)

In some instances, CHWs are recruited on the basis of their existing role in the community.

Natural Helper and Popular Opinion Leader approaches capitalise on the existing

connections, activities and influence of community members. Eng describes natural

helpers as informal disseminators of information within pre-existing social networks.(72)

Bishop et al reports that they are people who others “*naturally*” turn to, that they are

respected and trusted, that they are respected based on their reputation in the community

and that they are often already performing a caring or helping role in the community.(99)

They refer to them as working spontaneously and informally within their social network,

and says that they are assumed to have larger social networks than other CHWs whose

roles they had explored. Diffusion of Innovations Theory (100, 101) proposes that

individuals with an existing status in the community are able to influence the attitudes and

behaviour of others, and there are reports of where this has been effective, and where

failing to recruit appropriately has a negative impact on outcomes.

A further justification for the involvement of community members is access to target

individuals, particularly the ‘hard to reach’. Workers who are embedded in the community

are reported to be better able to make contact with others in that community compared

with traditional services – for example Broadhead et al’s observations in the context of

outreach work with drug users.(102) The mechanism linking worker embeddedness with user engagement is not clear and may involve factors such as proximity, local knowledge (of geography and habits), social networks, and shared community identity.(75, 103-106)

In the published literature, communities are defined simplistically along lines of ethnicity, age, gender, location, diagnosis, sexuality or socioeconomic status (being 'underserved' or in areas of deprivation) and there appear to be limitations to some of the terms used. For example, there have been calls to address the issue in ethnic communities: in the US, CHWs programmes are often targeted at broad ethnic groups, such as Latino populations, but it has been suggested that defining interventions along these lines may be inadequate and fails to address the differing needs between different subgroups, such as those with different cultural backgrounds or levels of acculturation.(107) Beyond ethnicity, debate in this area is very limited, perhaps owing to the overrepresentation of research and discourse of CHW services aimed at homogeneous (or assumed-to-be-homogeneous) ethnic minority populations in the US, and populations in low income countries

While the characteristics of 'community' may be best defined by members of the target group, the reality is that resource-limited governments frequently use administrative-derived health and demographic data to define which population groups who should receive specific interventions. Here, perceived need may be determined by health statistics (for example higher cardiovascular mortality in Latino men), service access (for example low breast cancer screening uptake in black women), diagnosis (for example the diabetic population) or risk factors (for example higher smoking prevalence in areas with a high level of deprivation). This is a rational approach for health service leaders to take; however, if

services are designed to address need in an administratively-defined community rather than a real, functioning community, problems may be encountered in delivering an appropriate service, for example in recruiting individuals who share identity across the target population, or who have adequate access to 'community' members to deliver services. South et al outline the importance of defining how embedded 'lay' workers should be in the communities they serve.(108) However, it might be more challenging to achieve 'embeddedness' in administratively defined, less specific communities.

2.3.2.1.4) Why does 'similarity' – be it defined as 'lay', 'peer' or 'community' – appear to be so important?

In the previous pages, I have shown that CHW literature values qualities in workers such as being 'lay', 'peer' and 'of the community'. These appear to be overlapping concepts underpinned by common theme of 'being similar to the client'. However, the majority of the CHW literature does not seem to engage substantially with questions as to why similarity might be important other than in the vaguest (non-theoretic) manner.

Further exploration beyond the CHW field revealed that there is a substantial literature largely grounded in the sociology and psychology disciplines which may offer a lens through which to comment on the recurrent theme of similarity in CHW reports. This section does not pretend to offer a detailed review, but highlights some of the psycho-sociological theoretical work which may assist in theorising why the client-CHW relationship and associated outcomes is perceived to be influenced heavily by 'similarity'. There are a handful of examples from the CHW literature which engage with these concepts, and these are presented in conjunction with the wider psycho-sociological literature.

It has been suggested that health workers (not specifically CHWs) who are similar to clients are more credible communicators compared with those who are not.(83) Borkman's work found that similar individuals in self-help groups (note not CHWs) deliver more appropriate, tailored information which takes context into account.(109) In one study Social Network Theory was used to account for a change in drug using behaviour as a result of a shift in social norms, as the 'peers'' arguments for change were perceived as culturally relevant.(110) Kreuter and McClure, in their narrative review of culture and health communication, discuss the impact of similarity between the 'source' (in our case the CHW) and 'receiver' (client).(111) This review draws on research from within and beyond the health promotion field, for example advertising data. Theory and evidence suggests that similarity leads the receiver to perceive the source as holding similar attitudes and values. 'Perceived attitudinal similarity' has been associated with increased trust, respect and perceived attractiveness or likeability. Kreuter and McClure state that this leads to an increase in persuasiveness, even where the topic of interest is not directly related to the shared characteristics. In addition, greater shared characteristics (for example ethnicity and gender versus ethnicity alone) is associated with increased behaviour change. Kreuter and McClure also found that recipients of culturally matched health education demonstrated better knowledge post-intervention than unmatched recipients. Receivers found material more exciting, were more likely to see it in a positive light, and retained better knowledge post-exposure. However, the receiver's strength of identification with the demographic group presented has also been noted to have an influence: in other words, some individuals, despite apparent demographic similarity, may not self-identify

with the person delivering the message. This is important as it indicates that all members of a crudely defined demographic group may not have an equal response to a worker.

Credibility also comes into play in Dynamic Social Impact Theory, which suggests that where individuals are similar, credible, and 'immediate' (i.e. socially, physically and temporally available), and where there is more than one individual acting as a change agent, behaviour change is more likely.(112) There has been one empirical example of a CHW programme where these three qualities were reported, and improved client engagement was observed, but workers here were volunteers, and part of embedded drug using network and quite different from many CHW models.(113) Credibility also appears in Diffusion of Innovations Theory(101) and the Theory of Reasoned Action(114). A study aimed at increasing condom use in gay men used these theories to explain how CHWs can influence social norms, due to the perception of workers as trustworthy, or as individuals whose opinion counts.(100)

Another mechanism through which shared identity has been proposed to work is through reduction of the power imbalance between client and worker, and Lhuissier and Carr theorised the potential for 'depowering' public health messages, and how the employment of workers who are more aligned with their clients may empower them to a greater degree than, say, doctors or nurses.(75) The authors do, however, note that CHWs are still in a relative position of power, and may be employed to deliver messages from health authorities, something which may disempower their clients. Simoni et al use Empowerment Theory to hypothesise that the reduced power differential between client and worker improves client autonomy, and keep clients engaged.(82) They suggest that this may be particularly important in socially excluded groups where power is low.

Empowerment Theory states that 'relatedness' (which may be indicated through similarity) has a function in relationship quality and effectiveness of empowerment activities.(115)

In the CHW literature, a common thread running through the 'lay', 'peer' and 'community' definitions is the ability of workers to act as role models for their clients, and to be a realistic social comparator. This is one area where there are accounts of CHW programmes that are based on theory, including Social Comparison Theory, Social Learning Theory, and Social Cognitive Theory, though it should be noted that the function and impact of these theories is not unpicked in detail.(116-121) Social Comparison Theory states that individuals use similar others to interpret the correctness of their behaviour, to assess their emotional states, to compare against others who are 'worse off' to enhance self esteem, and to compare with others who are 'better off' to inspire and learn how to improve themselves.(122-125) Social Cognitive Theory suggests that CHWs can change behaviour by providing observational learning opportunities, being a relevant example of what it would be like if the client made a change, and that similar CHWs can be agents of social persuasion.(126) Vicarious learning has been shown to be associated with self-efficacy in peer work.(127) Bandura reported that workers need to have high status in order to be credible role models, and this has been associated with effectiveness of interventions in empirical research.(128) This suggests that shared identity might not provide the full picture, and that some sort of reputation or social standing (as in the Natural Helper or Popular Opinion Leader approaches) might be necessary for role modelling to be effective.

2.3.2.1.5) Moving beyond ambiguous labels

Thus far, I have outlined the heterogeneous nature of the labels commonly attributed to CHW interventions in the literature, and noted how descriptive terms such as 'lay', 'peer' and 'community' while under-theorised do appear to indicate some central importance for 'similarity' in the CHW-client relationship. It is inevitable that simple, single descriptors will be inadequate to describe the totality of CHW interventions given the workers are largely selected for and defined by their relationship with the population they serve; relationships are varied and complex. This is exacerbated by the use of slippery terms like 'community' and 'peer', which have multiple meanings and interpretations and which are therefore difficult to conceptualise easily (unlike for example 'nurse' or 'doctor' – although role expansion and diversification are challenging these descriptors too). It has been suggested that the inconsistencies in definition lead to a number of difficulties, including confusion about the role, conflicting expectations about outcomes, and inability to compare interventions.(56) It also prevents others from faithfully replicating the work elsewhere.

South et al have proposed that we define what they refer to as the "*lay (96)*" designation as either 'non-professional', 'peer' or 'embedded'.(108) 'Non-professional' workers are not "*necessarily*" matched to clients. 'Peer' workers are matched on the basis of "*peerness* – *age, social status, gender, shared experience etc.*" 'Embedded' workers are "*Known and working in own community; this can include both peers and community leaders.*" While this approach is pragmatic, there is still scope for confusion (are non-professionals sometimes matched, and what are the boundaries of 'peerness' and 'community leaders'?).

I propose that there is overlap between these terms, and that it is necessary to develop South's descriptors further. In doing so, I have found it useful to explore the overlap between the 'peer'/'lay'/'community' terms by developing the Venn diagram in Figure 5. The diagram shows the relationship between a pregnant woman and a range of individuals who could be described as members of her 'community', her 'peers', or 'lay' (and combinations of all three). I aim to illustrate how the terms often used in the literature, even when identified more clearly, are not mutually exclusive. For example, the woman's neighbour is part of her 'community' (defined geographically), and is 'lay' (not a professional), but she is not a 'peer' (in this case defined as shared experience of pregnancy – of course there are many other ways in which this could be defined).

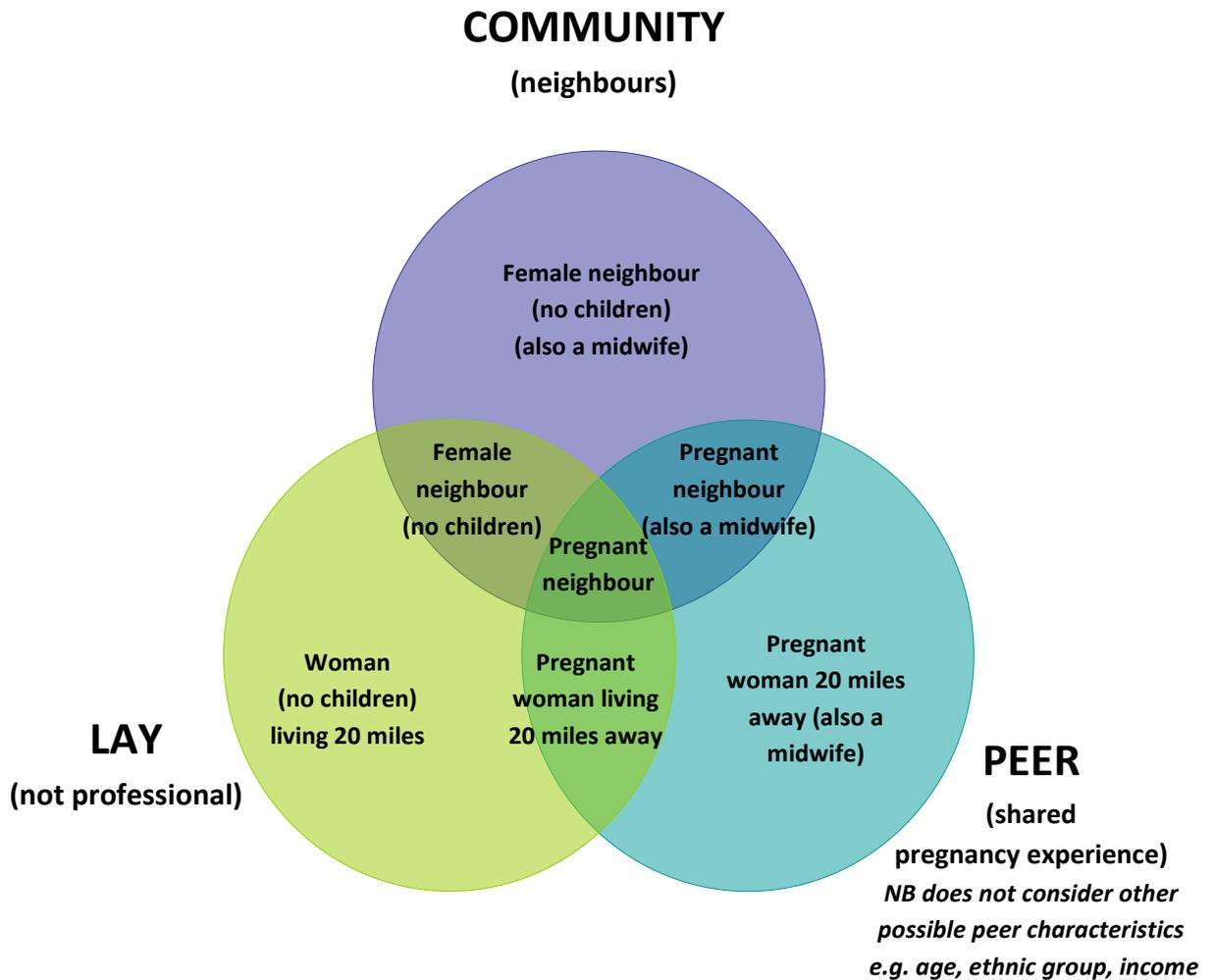


Figure 5: Illustration of a pregnant woman’s ‘lay’, ‘peer’ and ‘community’ relationships

I have illustrated how some of the terms commonly used to describe CHW characteristics can be difficult to pin down. Some of the existing research and review evidence attempts to define and explore the terms, but this does not seem to resolve the lack of clarity or provide a way forward. It is possible, however, to organise the characteristics of CHWs using less ambiguous terms. All of the CHWs identified through this literature review can be described according to the following three categories:

- **Demographics:** gender, age, ethnicity, area of residence (which could be confused with 'community'), language, sexual orientation, social class, level of education, income.
- **Life experience:** disease, life event (for example motherhood), behaviour (for example overeating),
- **Professional status:** whether the worker is non-professional ('lay'). As indicated by Dennis and Eng's work, this is not a binary feature (professional/non-professional), rather it there is a spectrum from 'lay' to professional.

These three categories will be developed further in subsequent chapters of this thesis, and will form the basis of my proposed taxonomy of CHW characteristics set out in the Discussion and concluding remarks. It is of course evident that my adoption of the term 'Community Health Worker', is in itself problematic in light of my critique of the term 'community'. Notwithstanding, I have chosen to refer to this group of workers as CHWs in the thesis, for two reasons. First, it looks like the term 'CHW' is here to stay: in practice, the most commonly used name, which encompasses the widest range of workers, is CHW. While unusual in England, the CHW moniker is widely used throughout the world, in low-, middle- and high-income countries. Despite 'community' featuring in its title, the term is well-embedded, and thus it seems sensible to use this term, while acknowledging its limitations. The second reason for using the CHW term is that I see no practical alternative: I have not identified a more appropriate name though my reading of the published work; neither have I been able to come up with a better term myself.

2.3.2.2) Knowledge, skills and personal qualities

In the previous section I have discussed markers of similarity between worker and client as reported in the literature. Researchers in this field also report that the personal qualities and skills of the workers are important.(11, 105, 118) In their 2013 paper, South et al present a typology of skills and attributes for 'lay health roles'.(129) They comment that it is challenging to identify whether these skills and attributes were inherent or learned through training and experience. This is important; if worker characteristics are inherent, it will only be possible to deliver them by recruiting people who already have them. South's empirical work suggested that the importance of the characteristics varied depending upon the context, for example being sufficiently confident to approach members of the public was deemed more important in a sexual health role that required outreach, compared with non-outreach roles. South et al also combine a range of variables within the umbrella of 'skills and attributes' (see Table 5), and the typology organises them into four categories: 'community orientation' (concerning 'community' knowledge and language skills, working with people (predominantly communication skills), 'respectful relationships' (qualities such as trustworthiness and empathy), and 'organisational' (such as reliability and commitment).

Community orientation	Working with people	Respectful relationships	Organisational
Knowledge of place and people	Communication and listening skills	Non-judgmental attitude	Organisational skills
Understanding of community needs	Good social skills – approachable and able to relate to people	Respectful	Reliable
Cultural understanding	Perceptive and sensitive to individual needs	Trustworthy	Team working
Language and interpretation skills	Ability to offer social support	Caring and empathic	Demonstrating commitment

Table 5: South et al’s typology of skills and attributes associated with ‘lay’ health worker roles(108)

In this section I propose exploring these characteristics, except for the ‘organisational’ attributes (organisational skills, reliable, team working, demonstrating commitment), as I deem these to be generic attributes required in the world of work, rather than specific to CHW roles. However, based on my reading of the literature and my analysis of skills and attributes, I have chosen to organise the information differently to South et al, using the terms as follows:

- Knowledge (for example local knowledge)
- Skills (for example communication)
- ‘Personal qualities’ (for example caring and empathy)

Not only do these categories reflect the organisation of the findings of my own empirical work, they also present characteristics in a format that I believe to be immediately intuitive and transferrable, clearly setting out ‘what CHWs workers know’, ‘what they can do’, and ‘what sort of people they are’. Of course it is important to acknowledge that ‘who they are’ in terms of their similarity to the client group may influence these three characteristics, and this is discussed later. However, before setting out how knowledge, skills and personal

qualities are described in the published work, I will address the frequently stated, but little explored concept of 'cultural competence', which is a central theme in the CHW literature.

'Cultural competence'

The term 'cultural competence' is cited across the literature as something which CHWs bring to services.(130-132) It is not clear whether this is a form of knowledge, a skill,(7, 129) or a personal attribute and is generally ill-defined when reported in CHW contexts.

While acknowledging cultural competence as important, South et al eschew the term in their skills and attributes framework, instead using terms such as 'knowledge of place and people', 'understanding of community needs' and 'cultural understanding'.(108)

The OED defines culture as *"the ideas, customs, and social behaviour of a particular people or society."*(133) Kreuter and McClure's review of the social science literature concluded that *"culture is learned, shared, transmitted inter-generationally, and reflected in a group's values, beliefs, norms, practices, patterns of communication, familial roles, and other social regularities,"* along with being adaptive and dynamic.(111) They describe culture's function as increasing the ability of groups of humans to overcome challenges in the environment.

There is obvious overlap between 'culture' and CHW-client similarities, in that shared characteristics can be used as labels to define a group with assumed shared culture.

In general health care terms, the language of cultural competence concerns adapting existing health services or professional health workers to make them better able to serve the needs of diverse communities, particularly with a view to mitigating health inequalities affecting minority populations.(134) (135) Betancourt et al define cultural competence in healthcare as *"the ability of systems to provide care to patients with diverse values, beliefs*

and behaviours, including tailoring delivery to meet patients' social, cultural, and linguistic needs."(134) This broad, system-based conceptualisation of cultural competence appears often in the literature. (135, 136)

CHWs provide an approach to achieving cultural competence for their host organisation,(137, 138) but what makes a 'culturally competent' CHW? Kennedy et al speak of CHWs' ability to be culturally competent in 'specific contexts' (for example in a deprived urban African American population, but not in a similar Latino population), suggesting that rather than creating a service that is able to respond universally to needs of different cultures, the CHW's role is to provide appropriate services in a discrete cultural environment: no worker can be culturally competent in every context. However, there are no comprehensive accounts in the literature of what this might, or might not mean in practice. The inference is that when a worker and a client share culture (whatever this means), this eliminates certain barriers to effective care and support, and facilitates understanding and communication. To use Betancourt's language, a culturally competent worker will be able to provide care that is sensitive to clients' "*diverse values, beliefs and behaviours*" and adapt "*delivery to meet patients' social, cultural, and linguistic needs.*" Betancourt's definition does not require that the worker has any particular similarity to their client, but that they are able to understand clients' situation and perspective (knowledge) and adapt their practise to accommodate their needs (skills). This conceptualisation is repeated in Horevitz et al's review of the cultural competence literature, and it seems that outside of the CHW field, cultural competence is not tied to shared characteristics.(135)

Wells produced a model of cultural competence for healthcare professionals that consisted of several steps, mastery of which constitutes 'cultural proficiency' (Box 5).(139)

Box 5: Wells' model of cultural competence for healthcare professionals

Cognitive phase

- Cultural incompetence *Insufficient knowledge of the implications of culture on health behaviour*
- Cultural knowledge *A working knowledge of various elements of culture and how they affect behaviour*
- Cultural awareness *Recognition of the impact of culture on health*

Affective phase

- Cultural sensitivity *Integrating knowledge of culture into practice*
- Cultural competence *Routinely applying cultural knowledge into practice*

(98, 139)

Wells' model, while not referenced in the CHW literature, offers a useful lens through which to critique some assumptions implicit in CHW practice. For example, an important question here concerns whether CHWs' 'cultural knowledge' results in 'cultural proficiency', where knowledge is routinely applied in practice. Unlike Wells' health professional model, the cultural competence attributed to CHWs in the literature is described as being acquired through lived experience in the target population's cultural environment, rather than through training and work experience. It is unclear whether CHWs who live in a population would automatically display the full range of attributes required for Wells' cultural proficiency, simply as a result of belonging to a particular population group. Current research and practice assumes that cultural knowledge leads to culturally proficient practice, but offer little empirical evidence to support this claim.

Diversity is a further challenge to the inferred assumptions about client-worker cultural alignment. Even within relatively homogeneous geographical communities there are likely to be variations in the attitudes, preferences and behaviours of individuals. Dreher and MacNaughton highlight the “*ecologic[al] fallacy*” of assuming that members of the same culture are “*the same*”.(140) This epidemiological term is used to describe the flawed practice of making inferences about individuals within a population on the basis of information gathered at population-level. For example, it would not be appropriate to assume that a woman in a deprived socioeconomic group would definitely not breastfeed on the basis that breastfeeding is rare in her ‘community’. Kreuter and McClure, Wells et al, and Arvey et al guard against crude assumptions about cultural groups, including along lines of ethnicity and lifestyle, for the same reason.(107, 111, 139)

2.3.2.2.1 Knowledge

Authors across the CHW literature refer to various kinds of knowledge that are relevant to these roles. South et al identified “*knowledge of place and people*,” “*understanding of community needs*,” and “*cultural understanding*” as key areas of knowledge for CHWs (Table 5), though the mechanisms through which this delivers health improvement are not clear.(108) Through my own empirical work, and following my critique of terms like ‘community’ and ‘culture’ I prefer to organise the domains of CHW knowledge as follows:

- Population knowledge (for example what it’s like to have an arranged marriage)
- Service knowledge (for example who to contact to access social housing)
- Specialist knowledge (for example signs and symptoms of common breastfeeding problems)

CHWs may already have this knowledge upon recruitment, for example by living in the target neighbourhood or belonging to a particular ethnic group. Others may acquire it through training and experience, for example by attending sessions on cultural awareness, or through mapping of 'community' resources.(141) Springett et al describe a process of "*experiential learning*" whereby workers acquire knowledge and skills 'on the job'.(60) However, experiential knowledge is only possible for those who have personal shared experience of the situation of interest, such as breastfeeding; one can empathise but cannot *know* what it feels like without direct experience. Dennis suggests that 'peers' can provide appropriate support based on experiential knowledge that cannot be learned through training alone.(73) However, the general cultural competence literature suggests that workers in health and social care *can* develop expertise and knowledge that can overcome the fact that they do not have personal experience of clients' situations.(135) It is unclear whether CHWs without relevant life experience could acquire sufficient knowledge to give effective support: there are differing perspectives across the field. The mechanism by which this might be achieved is not sufficiently understood, and existing research does not test it.

2.3.2.2.2) Skills

A number of key skills are reported in the CHW literature. Specific skills that can be identified in South et al's typology are; language and interpretation, social skills, and communication and listening.(37, 129, 141) As with knowledge, some of these can be acquired, and some might be described as inherent, though as South et al reported in their primary work it is often difficult to determine with some of the softer skills such as

communication.(108) As elsewhere in this review, in the following discussion I have retrospectively applied the categories developed through my own empirical work to the literature. The categories for skills are:

- ‘Community’ language skills (i.e. proficiency in a minority group language)
- Communication skills (for example listening)
- Other skills (for example motivational interviewing)

A relatively straightforward skill is ‘community’ language, and this features frequently in CHW interventions. One of the most commonly reported in the high income country literature is Spanish-speaking workers in the US. The utility of this skill is obvious: it allows clients with limited or no English to communicate with, and navigate health services and health information. There are descriptions of CHWs delivering group interventions in other languages, and accompanying clients to English-language settings to act as an interpreter. CHWs have also been involved in the translation of client materials (booklets etc) into other languages.(1) I have not uncovered any research where language-matching of CHWs is assessed separately from ethnic and cultural domains, so it is difficult to comment on whether a CHW who acquired language skills would be able to work in the same way as one who was a native speaker. In their review of cultural adaptations of health promotion interventions, Liu et al have identified the importance of describing the use of culturally appropriate language (for example slang words and local dialect), discrete from mere translation, though its effectiveness is unknown.(141)

One of the four domains of South et al’s typology is “*working with people*” (WWP), and arguably some of this encompasses what I in this thesis, will refer to as communication

skills. Within their WWP domain, South et al refer to ‘communication and listening skills’, and ‘good social skills – approachable and able to relate to people’, both of which I would argue relate to my overarching ‘communication skills’ category, the latter in the sense of CHWs’ communication skills enable them to communicate in such a way that they are deemed approachable by clients (South et al refer to outreach and client engagement in this context). Detailed accounts of the components of individual skills are absent in South et al’s typology, however.

General communication skills such as listening have been reported to be relevant elsewhere.(8, 40, 56, 119) CHWs have been trained to enhance these skills,(33) but it has also been recommended that good communication and social skills should be a consideration at recruitment.(108) Beyond the assumed value of good communication skills, and their reported presence in CHWs, the CHW literature does not contain specific analysis of the attributes of ‘good communication skills’ and their importance.

Authors report a range of other skills that enable CHWs to do their job, though these are often acquired through training following recruitment. These include healthcare skills (for example diagnosis and treatment of illness), psychological skills (for example motivational interviewing), and skills in organising groups and communities. Some CHWs are recruited with existing skills in this area, for example in the Scoping Study of the Health Trainers Initiative we found that a significant proportion of workers had previously worked in roles that involved behaviour change skills.(71) It is implicit in these cases that CHWs will apply these skills in the improvement of health, by identifying and treating disease, changing

negative lifestyle behaviours, or by organising others to collectively address health-related issues.

2.3.2.2.3) Personal qualities/attributes

Researchers in the CHW field have described a number of CHW attributes that I have grouped together as 'personal qualities'. By this I mean that they are features of the individual's personality, distinct from demographic or experiential characteristics, and any knowledge or skills they may have. It is important to acknowledge that it may not be possible to separate personal qualities from other characteristics: there will be aspects of an individual's character that are shaped by their demographic and experiential characteristics, for example, a worker who is an ex-smoker may not be judgmental regarding a client's smoking as a result of their own experiences, though they may be more judgemental regarding other behaviours of which they have no experience. In addition, these factors may not be fixed, for example an individual may acquire traits, for example by becoming more empathic over their lifecourse. On balance, I have concluded it to be helpful to explore 'what sort of person' CHWs are, and to define this as personal qualities or attributes, acknowledging that while other characteristics may influence them, this is not a 'given'.

South et al mentioned a number of such attributes in their analysis of CHW characteristics, and they include being approachable (which they refer to as a social skill), the ability to be perceptive and sensitive to individual needs, non-judgmental, respectful, trustworthy, caring and empathic, reliable and committed.(108) Respect, trust, and empathy have also

been cited by CHWs themselves as important in keeping clients involved in support.(90, 91, 142, 143) Additional related terms from around the literature include being comfortable discussing sensitive topics, patient (perceptive and sensitive), understanding (respectful and empathic), open-minded (non-judgmental), approachable or friendly, persistent, and credible (trustworthy). (137, 144-147) The mechanism of action, and the importance of these characteristics relative to others, has not been described. While they may appear self-evident it does not necessarily follow that this will lead to health improvement. It is possible, of course, that some of these attributes could be taught or enhanced through training, for example empathy training has been shown to be effective in lay workers.(148) However, the CHW literature generally describes recruiting individuals with these characteristics, rather than developing them through training.

Some CHW models have personal qualities at their heart. For example, Natural Helpers are selected specifically for their existing tendencies to offer support to others in their social network,(72) and thus are the sort of people who get involved and offer support to others. Similarly, the Popular Opinion Leader model recruits individuals who are “*trusted and well liked*” with the assumption that they are the sort of people that others will listen to and be influenced by.(149) The WHO definition of CHWs stipulates that workers should be selected by their own target population, inferring that such personal qualities may be a factor in judgements about appropriate candidates, and hence recruitment.(150) The involvement of the target group in selection indicates that these qualities may vary depending upon the context. In this sense, South et al’s attribute, “*approachable*”, perhaps requires refinement to ‘approachable in the eyes of the client group’. Whether a particular

client deems a worker approachable, or is able to relate, may also be highly subjective, and dependent on other characteristics of the worker.

2.3.2.2.4) Volunteer status

CHW services adopt a wide range of payment strategies for workers, ranging from no remuneration whatsoever, to regular salaried positions. South et al's expert hearings from 'lay' people in England suggested that using employed, rather than volunteer workers could alter the relationship with members of the public and lead to "*tensions*" between CHWs and clients, though the exact impact is not clear from their work.(97) A study in a low income setting suggested that being paid might alter workers' moral status: volunteers main motivations were described in terms of religious and moral duty, and social respect, and this was not the case for government employees. (151) The same study found that volunteer workers were more highly regarded by the 'community'. Similarly, an Australian study found that unpaid workers were more appreciated due to the voluntary nature of their support.(61) However, it must also be noted that the English expert hearings suggested that paid worker status could lend credibility to CHW roles.

2.3.3) CHW ‘role’ characteristics: what do CHWs do?

This section concerns the particular elements of CHW *roles* that set them apart from traditional health interventions and professionals (as opposed to the characteristics of the recruited *individuals*). The CHW literature frequently discusses CHW roles in the context of particular models. For example, South et al describe five main activities: *peer education, peer support, popular opinion leaders, bridging, and community organisation*.(108) Others too have offered similar lists of health promoting and related activities as a means of conceptualising the CHW role.(8) Few if any however have attempted to unpick what is meant by these terms which oft have contested and multiple meanings. Similarly, few authors have sought to explore how the CHW role differs systematically from the roles of other health and social care workers. In this section I attempt to ‘drill down’ beneath the sometimes vague model descriptors to capture the discrete elements of CHW interventions. Specifically, I address the question “What is it about CHW roles that is different compared to traditional health approaches?”

2.3.3.1) Continuity

Continuity is conceptualised in the empirical work presented later in this thesis in terms of CHWs’ ability to deliver a consistent relationship with the same practitioner, or ‘relational continuity’. This is distinct from management continuity (where there is a consistent response to managing an individual’s needs), and informational continuity (where there is a memory and utilisation of past events which informs care).(152) While continuity was raised as an issue in my fieldwork, the CHW literature does not provide much insight into its

relevance, though studies have found that it is appreciated by clients.(91, 153) One US review suggested a 'dose-response relationship' between contact time and HIV patient adherence to anti-retroviral therapy, though the mechanism of action was not discussed.(42) However, the medical literature does provide some insight into how it may impact. Doctor-patient continuity has been found to foster a sense of affiliation (as in "You are *my* doctor") and has been described as increasing trust and reciprocity and improving communication with patients.(152) It has also been found to reduce service use and cost in primary care(154) and to increase patient satisfaction.(155) The theoretical literature also provides some insight, in that Empowerment Theory cites continuity in a relationship as an important determinant of the effectiveness of empowerment activities.(115)

It has been suggested that CHWs offer a route to delivering continuity of care when they are used as an adjunct to existing health services, but this appears to concern clients' entire healthcare journey (management continuity) as opposed to relational continuity.(103, 156) For example, a CHW might take responsibility for ensuring that referrals, communication, and information-sharing between different healthcare professionals and agencies runs smoothly, so that there is a joined-up approach to care.

2.3.3.2) Settings

CHW interventions are often based in non-healthcare settings. This includes on the street, in clients homes, community centres, nightclubs, residential homes, and children's centres, but this is by no means an exhaustive list. Carr et al's review of CHW approaches suggested that community, rather than clinic-based services were more 'successful' ('success' was a composite measure based on effectiveness, cost and intervention intensity), though it was not clear why.(30) Clients have been found to appreciate services that are provided in convenient locations.(63, 70, 157) Resnicow et al, in their description of cultural sensitivity in public health, have cited the location of interventions in familiar locations as improving clients' receptivity to, and acceptance to health messages.(158)

Settings have also been reported as important in terms of recruitment, in that clients are easier to engage in easily accessible, familiar and 'safe' locations.(141, 159) However, not all community settings will have the same appeal; churches and healthcare settings have been found to deliver more effective recruitment compared with housing developments (neighbourhood-based recruitment) in the US.(141) In addition, community settings are not the exclusive domain of CHWs, and there are many examples of community-based professionals who conduct activities in locations outside of traditional healthcare venues, such as health visitors and midwives. Dickson-Gomez et al found that the setting for support impacted on the kind of support that could be offered, namely that safe drug-using advice was more appropriately dispensed *in situ*, where clients were in the act of using.(113) Simmons et al noted how the level of privacy impacted on client acceptability of services.(67)

Setting can also be applied in a temporal context, and CHW clients have been found to value the delivery of services at convenient times.(63, 70, 85, 157)

2.3.3.3) Core tasks of CHWs

Through the review of the literature, I have identified a range of tasks which CHWs undertake. I have organised them into the following categories:

- social support
- clinical care
- service development
- community development
- activism

It must be noted that authors do not always use these terms to describe CHWs, particularly in the case of social support – I expand on this below.

The core tasks undertaken by CHWs are often distinct from existing professional workers. While there are examples where ‘task shifting’ of work traditionally undertaken by professionals(160) (particularly in resource-poor environments, for example first aid or screening), there are many tasks that are specific to CHWs, and are fulfilling a role that was previously absent. Activities in this category include community development and activism. There may be specific knowledge or skill sets related to these functions that would not be seen in existing professional workers, for example local service mapping in Health

Trainers.(161) Of course, health professionals may see these tasks as within their scope of practice, but they can be challenging to operationalise in the health service structure.

2.3.3.3.1) Social support

Authors often describe an element of social support in CHW roles, though in the majority of cases the definition of the term is somewhat vague.(61, 73, 86, 88, 90, 91, 143, 153, 156, 162-169) Exceptions are Hoddinott et al's paper from 2006,(166) Ingram et al's work from 2007, which used social support theory to describe CHW functions. Of note is the Ingram paper which developed a CHW intervention for farmworkers on the US-Mexico border with specific, theory-based, social support functions in mind, and measured perceived social support from friends, family and clinicians (not CHWs) as a key outcome of the service. In other work, clients have identified social support as an important feature of CHW activities.(91) In this thesis I propose conceptualising a much larger portion of CHW work as social support, and a move away from separating CHW functions into concepts such as education, self-efficacy improvement, and social norm change. This is because many of the activities described in the literature can be described under the umbrella term 'social support'.

Langford et al have explored the theoretical literature with respect to social support.(170) They describe it as a function which occurs within the structure of the 'social network', i.e. if there is no network then the support cannot occur. They also refer to Barrera's work which established that the degree of 'embeddedness' within a social network (the quality and number of connections) is related to the level of social support an individual

receives.(171) The 'social climate' is also reported to be important; whether the social environment fosters helpfulness and protection. It could be said that CHWs work to promote network development, increase client embeddedness in the network, and a promote a positive social climate. They may also mitigate when these things are lacking, though this discourse is generally absent from the CHW literature reviewed.

Langford et al go on to describe how 'social health' is intrinsically linked with psychological and physiological health. Cohen attributes the health improvement to social support's influence on emotions, cognitions and behaviours, and that there are two main models to explain the mechanism of support.(48, 172) First, is stress-buffering, where support is aimed at minimising the psychological and physiological impact of stressful situations. 'Stressors' could include disease, bereavement, or social isolation. Stress-buffering-mediated health improvement has been found to be associated with the perceived availability of social support (regardless of its delivery).

Second is the main (or direct) effects model of social support, where social support is regarded as linked to positive health outcomes regardless of the existence of acute stressors. Main effects social support has been found to be associated with the degree of social embeddedness and integration.

Thus, social support is a multi-faceted 'natural' phenomenon occurring in networks of individuals. What appears to be implicit in the CHW literature is that CHWs may be agents who can be introduced to members of a social network to offer additional ('created' or 'synthetic') social support. It is important to explore whether this kind of social support

approximates to the natural variety, and indeed whether it is more effective in improving health.

Cohen et al also provided some insight into the importance of who delivers social support.(172) They noted that spontaneous support provided by network members (rather than professional care providers) delivered benefits in terms of increased self-esteem and reduced dependence on providers. Network members have been found to be better-placed to anticipate the need for support and give it without being asked. However, some stressors may be difficult to perceive, or actively hidden by the individual due to stigma or embarrassment: CHWs may be able to overcome the latter. In addition, informal social support may come with expectations of favours in return, and this has been found to hinder the process; in theory CHWs may be less likely to encounter this. Simoni et al noted this possibility in their analysis of the role of social support theory in peer support, while stating that empirical evidence was lacking.(82) On the whole, the level of detail in describing social support in empirical CHW research is very low, and it is necessary to look to other sources for understanding of the concept.

Langford et al identified four specific types of social support:

- informational support (information-giving)
- instrumental support (goods or services such as transport)
- appraisal support (assisting in evaluating circumstances and options)
- emotional support (for example praise, confidence building).(170)

While instrumental and informational support are relatively straightforward concepts, emotional and appraisal support are more complex. Appraisal support concerns the client's assessment of herself in context. Support encompasses the range of things that a CHW can do to assist the client in this process. It often involves the giving of information, but is discrete from informational support as the information given is used to evaluate the self, for example, information is supplied about what others experience in a situation that confirms that the client's own experience is within the normal range. Information often involves a degree of social comparison with another in similar circumstances. In addition to information, appraisal support may include reassurance or affirmation to assist the individual in gauging her situation, to the effect that she is 'doing fine'. This is also referred to as 'esteem support'. Some authors include this kind of support in their definition of emotional support. (170, 172)

The academic literature defines emotional support in a variety of ways, but the general consensus is that it communicates esteem, care, empathy, trust, respect, acceptance, liking, and even love to another individual.(170, 172-175) Some also describe it as conveying a sense of belonging and mutual obligation. Companionship, or 'being there' is also a feature of some authors' definitions of emotional support, although others define it as a separate domain of social support. Emotionally supportive communication can involve appreciation, encouragement, and reassurance, even though these actions are ordinarily be conceptualised as elements of appraisal support. This is because, while appraisal support involves evaluation of the self, it may also be a requirement for emotional support, as the emotional hurt that an individual feels may originate from damage to their sense of self,

and need work to 'repair' self-esteem.(176) Emotional support is described by many as essential to wellbeing, and a core function of social support.(172)

Cohen et al have set out the need for architects of services to map out the intended social processes where social support is an element of an intervention.(172) They referred to extensive literature that demonstrated the convincing but complex interaction between relationships and health, and the difficulty in designing and evaluating interventions. They outline the range of theoretical tools for classifying the content, delivery and context of social support. They also highlight some challenges. First, there are many ways of providing support to people and many situations in which it is needed, making this field difficult to study. Second, the pathways through which health improvements are mediated are complex and varied. Third, the individuals receiving support are a heterogeneous group, presenting a challenge in establishing the characteristics of those who are able to benefit more or less from an intervention. Finally, the wider context of social support (setting, content, matching of worker characteristics with the client) is important to capture and explore in order to understand the impact of an intervention.

Lastly, at this point it is pertinent to comment on two further functions of CHWs which appear frequently in the CHW literature as concepts distinct from social support, but which I posit are, in fact, elements of social support: bridging, and behaviour change.

Bridging

While detailed descriptions of social support concepts are largely absent from the CHW literature, workers are often described as performing a bridging role between health services, health professionals and the population, increasing access and breaking down barriers.(56, 138, 144, 147, 177) Applying social support theory, bridging is strictly a form of instrumental support, facilitating access to other services. It concerns the overcoming of barriers to individuals engaging with health services, and to health services engaging with the population. It suggests a two-way relationship that improves communication between professionals and the public, with the CHW acting as the mediator. This can include system navigation, an oft quoted concept whereby the CHW assists the client in making sense of health and social service structure and reaching the services that they need.(18, 62, 156) It also permits the CHW to act as an advocate for the client group, whether on an individual basis, communicating the needs and concerns of one client to a professional, or on a service-wide scale, feeding information about population issues to the healthcare provider. This latter allows the provider to shape service strategy to more appropriately reflect the needs of the population.(56)

Behaviour Change

While behaviour change is commonly described as a function of CHW roles, it does not feature in the CHW person and role characteristic categories developed through the empirical work reported in this project, and this is the last time it will be used as a subheading in this thesis. This deserves some explanation. This approach has been taken because 'behaviour change' is a complex task, and scrutiny revealed that CHWs were not changing behaviour, but instead providing a range of social support functions whose

outcomes included client behaviour change. That the literature frequently concerns itself with behaviour change but rarely engages with the concept of social support in any detail, perhaps betrays the medical model and outcome focus of intervention research. In other words, the problem to be tackled is often conceptualised in terms of the epidemiological need (for example for smoking prevalence reduction) rather than the population / client need (for example for instrumental, informational, appraisal or emotional support which may have a subsequent impact on smoking behaviour).

Within the CHW literature, the role of behaviour change can be summarised as thus: CHWs deliver behaviour change support to their clients. The behaviour may concern health and disease behaviour, lifestyle behaviour, or health service engagement. While health professionals in England are increasingly seen as important agents of behaviour change,(178) they must balance this with clinical objectives. It has been observed that some health professionals do not perceive behaviour change work as their responsibility, some feel that they lack the skills, and others are sceptical about the effectiveness of behaviour change techniques.(179, 180) Thus, there is a 'gap' in the market for another type of healthcare worker who can address behaviours which impact adversely on health. To this end, and especially in England, most novel CHW interventions have an explicit and specific behaviour change focus – for example Health Trainers, Smoking Cessation Workers, and food workers. The programmes adopt specific psychological techniques, in which CHWs are trained, in order to deliver change.(49)

There is evidence of the effectiveness of CHW interventions in changing behaviour though systematic reviews comment that often evidence is of variable quality, programmes are

heterogeneous, and some findings are contradictory.(1, 10, 30, 33, 34, 42, 43, 45) Some evidence exists for improvements in immunisation uptake, breastfeeding, health service use, medication adherence, mammography uptake, and home adaptation in asthma, all of which apply to high income settings.(10, 32, 34, 47) However, even where evidence of change exists, authors do not unpick the mechanism of, and contextual influences on behaviour change.

2.3.3.3.2) Clinical care

CHW models in low income countries are often implemented to address shortcomings in health service provision. As such, they frequently provide clinical care, and, as related in the introduction, are associated with significant improvements in selected health outcomes in resource-poor settings. This approach is not part of the core group of tasks of CHWs in English settings, and no accounts of this kind of work could be found in the literature.

CHWs do undertake clinical duties in some high income countries, however, most notably in the US. Here, some CHWs provide medication counselling, first aid, and take basic observations such as blood pressure and pulse.(181) Workers undertaking this kind of work are often part of multidisciplinary teams of health professionals, particularly in mobile clinics delivering care to rural or underserved communities. The sense from the literature is that these activities are not core tasks for most CHWs in the US, with the focus being more on prevention, health education, and assistance to navigate and access the health system.

(1, 182)

2.3.3.3) Service development

The bridging function of CHWs can impact beyond an individual client. The 'bridge' can operate in both directions, and workers can act as a conduit of information about populations, health needs, and the suitability of other services, with potential impacts on wider service quality.(97, 156, 183, 184) In the English context, South et al's expert hearings with workers suggested that there was a need for the NHS to make better use of opportunities to gather information and develop services using CHWs.(97)

2.3.3.4) Community development

While the high-income setting literature often focuses on behaviour change and individual support models of CHWs, workers can also have a role in community development, wherein they undertake activities to strengthen and engage the (usually deprived) population in achieving its needs.(8, 72, 99, 137, 168) Indeed, some of the key historical models of CHW support have community development as a central feature.(150) South et al's review of the lay and CHW literature suggested that community development activities were additional, rather than core, common roles for CHWs.(185) In the English context, a further piece of work by South et al, expert hearings with CHWs, uncovered accounts of community mobilisation mediated by workers.(97) However, this was not necessarily as an explicit function of the service, but rather as an added unintended benefit.

Overall, it appears that community development is a lesser function of existing CHW approaches. This perhaps reflects the fact that the architects of services predominantly focus on tangible health problems and health behaviours, rather than the upstream

determinants of health which community development approaches might address (for example environment, housing, employment, education). In England, the wider UK, and the US CHW services are commissioned or paid for using health budgets, and it is logical to focus on the specific target diagnoses and risk factors in service design, though it may limit opportunities for health improvement. Community development is typically the domain of Community Development Workers (27) and Community Organizers (US), and is located outside of health services. The move of public health service commissioning and provision from the NHS to Local Authorities in England may facilitate a change in approach for CHW services located there.

2.3.3.3.5) Activism

In some circumstances, CHWs undertake community activist or advocacy roles, championing the rights of particular groups.(7, 13, 163, 168, 186) This is distinct from advocacy for individual clients. This activism can relate to health care access, or the broader plight of specific groups (for example people with diabetes). Advocacy for community needs appears in the US CHW competency framework.(6) These activities are rarely the primary focus of CHWs in the literature. However, a 2012 survey of 371 CHWs across 22 US states found that *“71% reported working with community leaders, 72% with other CHWs on projects, and 52% participate in a group or coalition that is addressing a health problem.”*(8)

This, along with broader reading of the literature, suggests that activism and advocacy are not a core function for most CHWs, but that it is an iterative, longitudinal activity, which

CHWs undertake alongside their routine activities. This perhaps reflects the fact that (as in the earlier discussion of community development) services are set up and commissioned with individual prevention and health improvement activities in mind, rather than activism and community advocacy. It appears that CHWs engage in activism as a natural response to the structural societal challenges they see in practice. A parallel can be drawn with other occupations in health, for example doctors from specific specialties often engage in activism and advocacy on behalf of their patients, without this being explicitly written into their job description. However, it is worth noting that there may be opportunities to build activism into CHW roles, which may lead to additional health improvement.

2.3.2.4) Enacted philosophy: empowerment and client-focus

The ability to respond to the client's self-determined needs has been highlighted as a strength of CHW approaches, in comparison with professional approaches where care may be focused on a specific clinical or social problem.(8) Of course, the degree to which a programme is holistic depends on the original remit.

Empowerment- and client-focused approaches to CHW support have been observed to maintain or improve self-esteem.(60) This tallies with findings outside of the CHW field which suggest that individuals' sense of control and belief in their abilities is of high importance in health behaviour change, particularly in deprived populations.(187)

Empowerment Theory demonstrates the connection between the characteristics described here, in that patient (client)-centredness is associated with an effective empowerment relationship.(115)

2.3.3.5) Time

CHWs are frequently cited as being able to devote more time to their clients compared with a traditional professional such as a nurse or doctor: something that was appreciated by both clients and health professionals.(44, 91, 146, 153, 188-196) In one study the 'dose' of social support provided by CHWs improved adherence to HIV therapy.(82) Similarly, Jolly et al, in their systematic review of breastfeeding peer support, found that the 'intensity' of contact was significantly associated with improved overall breastfeeding rates.(45)

2.3.3.6) Cost

CHWs are cheaper than traditional professionals such as nurses or doctors, whether they are paid or volunteers. This means that they can potentially reach more individuals, or give clients more time for the same cost.(197) This is a common reason for the use of CHWs in resource-poor environments, or where there is insufficient clinical staff to serve the population.(198) However, high income countries also employ CHWs due to their relatively low cost.(199) This is distinct from cost-effectiveness, of course. Evidence around cost-effectiveness of CHWs is emerging, but to-date has been of insufficient quality to draw firm conclusions.(32) It is likely that meaningful cost-effectiveness evaluations will only be possible once the CHW research community has tackled the immediate issue of accurately measuring and reporting intervention heterogeneity and fidelity alongside the outcomes of interest.

2.4) Summary

This review of the CHW literature sets out some of the challenges in the field. It has explored how CHW programmes are named and conceptualised, focusing on particular on the ways in which CHW-client similarity is described in terms of 'lay', 'peer' and 'non-professional' identity. It proposes a new way of describing this similarity, in order to address the present ambiguous and overlapping terms, which is developed further in the Discussion chapter of the thesis.

In describing the conceptualisation of CHW services, the review explores others' accounts of the mechanism of CHW health improvement, and has found that much of this is attributed to the characteristics of CHWs themselves, and features of CHW role design. However, it has also identified assumptions and gaps in the existing theory. The empirical work in this thesis scrutinises these areas, and combines existing knowledge with primary evidence, and theory borrowed from other disciplines. The final product is a mechanism of health improvement, delivered by CHW social support, and the following chapters will describe how this was achieved.

CHAPTER 3) METHODS

3.1) Overview

This section of the thesis details the research aims and objectives. It outlines the philosophical and methodological approach, and preparations for entry to the field. It goes on to present the methods used in fieldwork and analysis, including approaches adopted to ensure methodological rigour.

3.2) Philosophical and methodological approaches

3.2.1) Philosophical approach

3.2.1.1) Ontological position

Ontology is the branch of philosophy which explores the nature of reality and existence. In this research, the reality under scrutiny concerns the mechanism by which CHWs mediate health improvement, and the actions and events involved in the delivery of CHW interventions. It also concerns the research participants' beliefs and perceptions about these.

My ontological approach to this research is best described as realist, in that I accept the existence of a reality that is separate from individuals' perceptions and beliefs about the world (as opposed to idealist and relativist stances, where there is no single reality to be known). I understand reality as including both physical and social phenomena (while

materialists accept only the former). This reality exists regardless of our attempts to capture and explain it.

As a researcher, I believe that my access to the reality of interest is via the accounts of individuals with experience of it (my research subjects). I take the subtle realist stance that reality is only knowable via socially constructed meaning, and that knowledge of reality constitutes "*beliefs about whose validity we are reasonably confident.*"(200) This lies in opposition to the naïve realist position where the researcher has direct access to a valid, independent 'truth' through participants' accounts.

3.2.1.2) Epistemological position

Epistemology is the study of the nature of knowledge, and how it is acquired. In terms of my role in gathering knowledge, I reject the positivist notion that it is possible for the researcher to be objective, and to produce findings about the social world that are entirely independent of their own reality. Instead, I take an interpretivist, or constructivist stance, viewing the researcher and the social world as connected, accepting that findings will be coloured by my own world view, with the concurrent need to acknowledge and reflect upon this interaction. My approach is best described as one of "*empathic neutrality*",(201) where the researcher accepts that their own values may come into play, and employs close self-scrutiny, and disclosure about the impact on the research process and findings (this is explored further on page 93 where I discuss reflexivity).

The subtle realist perspective also posits that knowledge gathered from subjects' accounts is not independent of researchers' and participants' purpose and cultural context. Subtle realism rejects the idea that knowledge must constitute information that is irrefutably 'knowable'; rather, the product of the research, the knowledge, is a representation of the social reality being researched, co-constructed by the researcher and subject.(202)

Arriving at this ontological and epistemological stance represents a shift in my perspective on my role as a public health professional and researcher (See Biography; Appendix 4). My medical background and public health training has been in an almost entirely positivist environment, and I had never formally scrutinised my approach to my understanding of the world. During my work as a Specialist Registrar in Public Health, I had undertaken some fledgling qualitative work, and started to explore the ways of accessing the less tangible knowledge regarding the nature of health, illness, and people's interaction with health services(203). Joining the team (now my doctoral supervisors) working on the Scoping Study of the Health Trainers Initiative in 2008 provided further insight into my role as a researcher, and the limitations and possibilities of 'knowledge', though I would not have conceptualised it as such. This body of work presents a further development in my understanding of the world, and how we explore it.

3.2.2) Methodology

In the above discussion of ontology and epistemology I have established my stance on the nature of truth and our means of accessing it. Here I will explore my methodological approach to the work; the theoretical underpinnings of the research activity itself.

Qualitative methods consider questions of ‘what’, ‘how’ and ‘why’. A qualitative approach was selected for this research, as the research aim and objectives concern the identification and exploration of an unknown phenomenon; namely, the mechanism of CHW health improvement.

Defining my methodology more specifically has been no easy process, being confronted for the first time with approaches that find their origins in sociology, anthropology, and psychology, and feeling unable to pin my colours to a specific methodological mast. For example, in other fields, often the goal is to explore phenomena without any expectations regarding endpoints, yet I am operating in a discipline (public health medicine) where the overarching aim is to improve health and wellbeing and deliver a ‘translational’ endpoint that will have implications for practice.

In light of my struggle to align my objectives exactly with formal qualitative methodologies (for example ethnography or Grounded Theory), my methodological approach falls under the broader definition of generic qualitative research, an approach which is increasingly common.(204) Generic qualitative research “*seek[s] to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved.*”(205) It encompasses iterative, flexible approaches, and does not require the researcher to adhere

to strict methodological rules, as is required in other approaches such as Grounded Theory.(206) This has enabled me to let the research question drive the methodology, not vice versa. While some have suggested that such an approach lacks methodological rigour, there is an increasing weight of opinion that, provided methods are justified and reported, generic qualitative methods are robust, and offer more creativity than other qualitative traditions.(207)

Within the broad church of generic qualitative research, my methodology is best described as interpretive descriptive research. This approach was developed in the field of nursing, and it takes techniques from other methodologies, for example the use of multiple sources and constant comparative methods from grounded theory,(207) both of which are employed in this doctoral research. The function of analysis includes “*locat[ion of] the findings within the framework of the existing body of knowledge,*” in order to set findings in the context of research and practice.(208) The architects of this approach stipulate that findings should be reported in such a way as to highlight their implications to services.(209) This real-world relevance is of great importance to me as a public health professional, and as such this approach was highly attractive.

3.3) Preparation for entry to the field

3.3.1) Ethical considerations

Research with human subjects raises ethical issues concerning both the researcher and the researched. The qualitative nature of this research also presents particular concerns, as the relatively unstructured, iterative process of data collection is more likely to result in issues arising that were not anticipated during the research design. As many of the research subjects were staff, volunteers and users in NHS services, the project was submitted for NHS ethical review (by the South Birmingham Research Ethics Committee (REC)).

Following paper submission and face-to-face interview by the review panel, ethical approval was granted with one small amendment to the participant consent form (to incorporate text granting regulators to access participants' records should my research be subject to audit or investigation).

Richie and Lewis summarise the key areas of ethical concern in qualitative research: informed consent, anonymity and confidentiality, protecting participants from harm, and protecting researchers from harm.(201) A detailed exploration of each of these areas is presented in Appendix 5.

3.3.2) Selection of and access to research sites

3.3.2.1) Why the West Midlands?

The research was conducted in CHW services in the West Midlands Strategic Health Authority area (now part of NHS Midlands and East of England in the new NHS structure).

There are a number of reasons behind my decision to focus in this area. First, my background in public health practice in the region conferred a set of professional networks and local knowledge that would facilitate research access, and contextual understanding. Second, the region provided a broad range of populations (for example diverse to homogeneous, and deprived to affluent), allowing exploration of CHW services in different contexts. Finally, proximity to research sites was a more practical, albeit important, concern.

3.3.2.2) Scoping CHW services in the region

It was intended to capture the breadth of CHW approaches with respect to the research objectives. The literature review provided an overview of the range of approaches available, but there was no existing record of active CHW services in the West Midlands region. Therefore I conducted a scoping exercise to assess 'what was out there' before beginning to select and approach research sites. This exercise involved telephoning the public health departments of the 17 Primary Care Trusts (PCTs) across the region and enquiring whether CHW services had been implemented locally. PCTs were asked about common CHW services (Health Trainers, Expert Patients, Smoking Cessation Workers) and

also about any novel CHW activities. The findings are presented in Appendices 5 and 6, along with a summary of the kinds of worker described in the table.

3.3.2.3) Selecting sites

I proposed selecting two CHW services in each of three PCT areas (six in total). While there would be some comparability in terms of service type across the sites, I decided to avoid a completely ‘matched’ selection (where the same two services would be studied in all three PCTs). This also provided more flexibility as it was challenging to select three PCTs with matching pairs of CHW services, as implementation patterns varied greatly. Services were selected in order to capture a range of CHW models (informed by my literature review) and population types (informed by my local knowledge and the scoping review). In terms of CHW model, particular areas of interest were; paid and volunteer workers, group and individual interventions, NHS and non-NHS providers, single (for example breastfeeding) and complex (for example multiple pregnancy outcomes) issues. With respect to the target population I aimed to encompass urban and rural/non-urban, deprived and affluent, diverse and homogeneous populations. The summary characteristics of the PCTs, the CHW services and the six services selected are presented in Tables 6-8.

Demographics of PCT areas selected	
Location	Rationale
PCT A	Deprived, diverse, urban
PCT B	Affluent with pockets of deprivation, urban/rural mix, relatively ethnically homogenous
PCT C	Deprived, diverse but less-so, town/suburban, postindustrial

Table 6: PCT Characteristics

Category	Rationale for selection of CHW services
Pregnancy Outreach Workers (POWs)	Aimed at addressing inequalities (social risk in pregnancy, wider determinants, support rather than behaviour change). Recruited for personal experience and 'lay' qualities (e.g. young motherhood, prior domestic violence etc.) A formal paid role. Mostly 1:1 interactions.
Breastfeeding Peer Supporters (BFPS)	They seem to be more 'bedded in' and accepted by health services than POWs: perhaps less of a threat and with a more clearly defined role. Voluntary and paid workers exist allowing comparison. Not restricted to deprived areas or health inequalities as breastfeeding rates low everywhere. A very practical, easily defined 'show how' and supportive role, arguably more 'lay'. This group rely heavily on existing 'lay' knowledge, not taught skills/facts. Group and 1:1 interactions.
Food workers	Behaviour change workers, focused on 'hard to reach' communities. Mostly group work (distinct from POWs and BFSWs). Practical 'hands on' help, very similar to that already offered by nutrition professionals in most PCTs (so potential for exploring laity compared with professional workers doing the same job).
Slimming World	International business providing weight management support in all communities by consultants who operate as independent businesses. A (large) group-based intervention based on weekly meetings with a lead 'consultant', supported by online and printed content. Could be described as an 'industrialised' service.

Table 7: CHW Service characteristics

Services selected for study			
	Breastfeeding Peer Supporters	Food workers	Pregnancy Outreach Workers
PCT A	paid		paid
PCT B	volunteers	paid	
PCT C	volunteers and paid	volunteers	

Table 8: Distribution of the six selected services by PCT

3.3.2.4) Difficulties at the research sites

The final services sampled were not those initially selected. PCT C was ultimately rejected as the local authority provider of services was reluctant to participate in research, and the research governance processes could not be established. The breastfeeding service at PCT

A was rejected following three interviews, as response was low despite a number of measures put in place on my part to explore and address issues.

Following the difficulties described above, I decided to attempt to recruit a further service to the study. During the course of the research, the NHS had been increasingly commissioning private sector weight management services (such as Weight Watchers and Slimming World) as providers. I felt that it would be interesting to explore services in this context, as it seemed to be increasingly relevant to the NHS, and a very different model of implementation with a more businesslike approach and prominent branding. The decision to select Slimming World over Weight Watchers was a result of the Scoping Study of the Health Trainers Initiative, where I had observed a number of PCTs commissioning them to deliver weight management, and keen interest from the NHS in using Slimming World to deliver these services. In terms of research site, I worked through the national Research Lead at Slimming World, and she assisted in recruiting a team of consultants to participate. Though I attempted to recruit a site in PCT A or B, this was not possible, and a degree of pragmatism had to be accepted. The eventual Slimming World site was in PCT area C. In summary, the four services successfully recruited and fully participating to the research were:

Pregnancy Outreach Workers (POW) (PCT A)

Make and Taste Service (M&T) (food workers) (PCT B)

Breastfeeding Peer Supporters (PCT B)

Slimming World (PCT area C, though not provided by PCT)

Access to the research sites was gained by approaching service leads directly with information about the project, and those in PCTs A and B (and Slimming World) agreed to participate in the project following face-to-face meetings. The local Research and Development governance procedures were required (and successfully completed) before approaching potential participants.

3.3.3) Sampling

The intention during the research design process was to sample purposively, first interviewing those involved in the design and management of the CHW services, and selecting subsequent participants based on the characteristics of interest according to the research questions and emerging themes. This process was intended to continue until subsequent interviews ceased to uncover novel concepts, reaching the point of thematic or data 'saturation'.(210) Things did not work as expected. It quickly became clear that there was a limited number of workers in each service (except for the POWs service), and taking into account the likely participation rate, it was necessary to invite all workers in each service and interview as many as came forward. In addition, explaining a stepwise, purposive approach to the teams of workers and managers was challenging, particularly as some of my desired purposive sampling criteria may have been deemed inappropriate (for example sampling by ethnicity).

The exception to the 'sample everyone' scenario was the POWs service. Made up of three teams, there were two rounds of recruitment with two out of the three teams. The third team was not approached to participate as by this point the overall dataset was rather

skewed towards POW accounts. I had to be mindful of my capacity to collect and analyse the volume of data that a further round of POW recruitment would generate. I also had to consider whether I was seeking a within-CHW-service saturation, or saturation across the dataset. However, ultimately the decision to stop sampling POWs was pragmatic, rather than a decision rooted in the concept of saturation.

In terms of clients, my initial intention at the research design stage had been to sample around five clients in each of the services, the sampling frame being CHW clinic lists and groups. Participating CHWs were asked if they would distribute invitation letters and information sheets to their clients. Where CHWs operated on a 1:1 basis, I provided five invitations to be given to the next five clients, and where CHWs worked in groups, I provided invitations for all members of one group. As will become clear later, overall this approach was not a success. This is discussed on page 89.

3.4) Fieldwork

3.4.1) Recruitment

Recruitment varied slightly depending on local service structure. Service Leads were recruited directly by invitation letter, supported by an information sheet. Managers and other stakeholders were provided with an invitation and information sheet via the Service Lead or other participant. Worker recruitment was a two-stage process where possible. First, I attended a team meeting to introduce myself and the project, and to answer any questions. I distributed information sheets and invitation letters at this point, but I asked

workers to go away and consider the information and get in touch should they wish to participate. This was then followed up by their manager sending them a reminder email and an electronic copy of the invitation and information sheet. The workers then contacted me directly if they wished to participate.

Clients were recruited (or not) via their CHW. Participating CHWs distributed invitations to their clients in the 1:1 or group setting, and clients were asked to contact me directly if they wished to participate. In reality, recruiting clients proved extremely difficult. The ethical restrictions did not permit me to approach clients directly, and therefore there was a lack of reciprocity and no opportunity to build trust with clients who were often vulnerable already. I was only able to recruit two clients in the POWs service, both of whom were strong advocates of the service and were keen to 'give back'. Of note, a number of the Peer Supporters had previously been clients of the service and their accounts did provide some information on the client experience. Unfortunately, no additional clients were successfully recruited.

3.4.2) Data collection

3.4.2.1) Interviews

The primary method of data collection was through in-depth interviews with participants. The literature review suggested that there was variation in the conceptualisation and implementation of CHW roles, and in context of client and worker. There was also theoretical 'shorthand' whereby I perceived interventions as loosely or inadequately

explained. Therefore I felt that it was vital to gather the participants' own narratives of CHW characteristics and mechanisms of action. In this thesis, participants' accounts are given numbered labels describing their role, for example POW 7. Where both participant and researcher accounts are presented, participant is denoted by 'IV' (interviewee) and researcher by 'I' (interviewer).

An unstructured, in-depth approach was used to allow the content to develop as naturalistically as possible within the confines of a research interview. However, a range of prompts were developed addressing the research objectives (Appendix 8) that were used to guide discussion as necessary (though without limiting scope of the discussion or being used as a checklist for content). The prompts represented content mapping questions where the broad 'territory' of the subject is explored.(201) For example, "*How do Peer Supporters bring about positive change in breastfeeding women?*" Responses to these questions were used to formulate content mining questions in order to fully explore what a participant has said, for example "*Okay, that's interesting. So what do you mean by that?*" This was complemented by iterative probing, to gain clarity, but also to reveal underlying perspectives where the explanation offered does not 'add up', for example "*So why is it different with the life issues rather than breastfeeding?*" The content of the interviews was also informed by the accounts and emerging themes from earlier interviews, whereby particular points of interest were pursued to a greater degree to assist in the building of descriptive and explanatory accounts in the analytic process.

The interviews were audio recorded. This permitted me to devote my attention in full to the participant without the need to write notes. I also avoided the intrusiveness of note

taking, and ensured that I had a full account of the conversation for analysis at a later date. Occasionally I used very brief notes to bookmark a key point for further exploration to avoid interrupting their story. I alerted the participant to this possibility, and offered to leave any notes with them to emphasise the fact that the notes were of no consequence (rather than with the expectation that the offer would be accepted).

I kept a reflective diary during the data collection process where after each interview I would spend time noting facts about the interviewee, context (for example location) and any thoughts on the content and wider research process, including my own role.

The interviews were conducted between November 2011 and September 2012. In general, I attempted to complete data collection in one service before commencing the next, but in practice this was not always possible due to participant availability. I attempted to interview service leads and managers first, followed by workers, then clients and other stakeholders. Participants were ordered in this way so as to gain insight into how CHWs were intended to function from service leaders, before exploring how they worked in practice. Again, this was not always possible.

3.4.2.2) Observations

During the course of the research, a number of CHWs offered the opportunity to shadow them in practice. I welcomed the chance to observe the interactions between CHWs and clients, and to see the context in which they work. However, observation was not an element of my original research design. I considered the feasibility of collecting

observational data across the services, and unfortunately my own time and resources meant that the original project could not be formally extended to incorporate observations. However, I felt that there would still be value in following up on these opportunities, and observations could provide supportive, contextual information that could inform the wider study. I therefore gained local ethical and research and development approval for observation within the services. I was able to observe two Slimming World groups, a M&T group, and a Breastfeeding Café in action. During observations I made notes about what happened, alongside my own reflections.

3.4.3) Interview venues

The interviews were carried out in a range of locations. My primary concern (following my own safety) was to ensure that the interviewee was in a comfortable, familiar environment that would promote an open, relaxing atmosphere. I favoured allowing participants to decide the venue, in order to foster feelings of empowerment and minimise any sense of researcher-participant hierarchy.(211) However, this was not always possible, as many of the employee interviews were conducted in work time, and the employer kindly made space available in the workplace and accommodated my research. While it was possible for CHWs to meet off site out of hours, nobody requested this. In addition, I perceived advantages to collecting data in workplaces due to the contextual insights it might allow.(211) These issues had to be balanced with the need to provide an environment for participants to talk freely without fear of being overheard.

Some interviews were conducted outside of workplaces, as follows; at my place of work, at workers' homes, in a hotel bar, and in a supermarket coffee shop. In workplaces, usually meeting rooms had been made available, though occasionally communal spaces such as cafes and 'breakout areas' had to be used. Ultimately I had to make pragmatic judgements regarding privacy, quiet, comfort and availability of spaces to meet.

3.4.4) Research relationship

Qualitative research is a reflective process.(212) Reflexivity in research is the identification of limitations, attempt at mitigation, and acknowledgement of any residual issues. A reflexive researcher is one who is aware of their own role in the construction of knowledge, and who engages with their own lack of objectivity.(213) At all points in the design and conduct of this research, I actively reflected on my decisions and impressions, not least in my relationship with my participants.

I was keen to foster a non-hierarchical relationship with the research subjects, in order to emphasise the co-construction of knowledge through the research process. I attempted to do this in several ways, while recognising that it would be unlikely that I would be able to eliminate any sense of difference between myself and the participant. First, I met participants at a place and time of their choosing, to maximise their autonomy. Second, as far as possible I matched the formality of my dress with that of the participant, to reduce any sense of difference. Third, I decided not to advertise my medical qualifications (though I did not hide them if asked). This was an attempt to minimise any sense that I was an expert or had any status or power above that of the participant. This was particularly

pertinent as I was hoping that the research would shed light on the advantages of non-medical CHWs compared with doctors in communicating with patients.

From the outset, I had a sense that being female conferred an advantage in this research project in terms of building rapport before and during an interview. The majority of my participants were female, and the interventions were largely aimed at women. It has been noted that matching interviewers and subjects by gender helps to minimise the power differential between them, and improve the research relationship.(214) During the course of the research I also went through two pregnancies, delivered and breastfed two children (a fact well-known to participants), and I found that subjects engaged me in discussion about maternity and parenting during the planning and conduct of research, which helped in establishing a relationship with participants.

3.5) Analysis

The fieldwork for this study yielded over one thousand pages of interview transcript, field notes and reflections, all requiring analysis. The approach taken in this study is best described as thematic analysis, using the Framework method,(201, 215) first developed by Ritchie and Lewis, to manage and work with the data.

Before commencing formal, structured analysis, authors describe the importance of familiarising oneself with the data by reading and rereading transcripts. (216) Following familiarisation, Ritchie and Lewis' analytic hierarchy breaks the process of analysis down into three broad steps; data management, descriptive accounts, and explanatory

accounts.(201) First, data must be *managed*, or organised in order to make the large volume of disjointed material more manageable and accessible. Second, this data must be used to build *descriptive accounts* of the nature of, and patterns and variability in the data. Finally, *explanatory accounts* are developed, attempting to locate associations across the data and explain the underlying mechanisms. These three steps are not chronological or discrete; throughout the analytic process new codes and themes may emerge and require the researcher to revisit the raw data, and likewise explanatory accounts may begin to develop during the data collection process.

3.5.1) Data management

3.5.1.1) Transcription

Interviews were audio-recorded. Recordings were transcribed by a third party professional transcription company. The decision not to transcribe the interviews myself was in order to increase my capacity to undertake fieldwork and analysis. On sending recordings for transcription, I added notes to assist the transcriber where necessary (for example where acronyms were used). I checked the transcripts for accuracy by listening to the audio recording and amending any errors. Where necessary, I provided feedback to the transcriber, for example in one instance the transcriber had repeatedly corrected the grammar in a participant's colloquial English.

3.5.1.2) Identifying initial themes and concepts

Before coding (or indexing) and categorising, it is important to be familiar with the raw data, and to revisit the research objectives. I had the advantage of having designed the research, being the sole interviewer, and having recently conducted the interviews, which made refamiliarising myself with the information prior to formal analysis relatively easy. Even so, I listened to, and re-read a selection of transcripts across the services, and re-examined the research objectives, in order to begin identifying common concepts and themes. I also revisited my field notes, where I had noted some emerging themes following individual interviews.

I made a note of any concepts or themes in this initial familiarisation. I then grouped them into broader categories to provide a more organised framework for later analysis. The coding index is presented in Appendix 9. It should be noted that the initial framework was developed and expanded throughout the analytic process, as additional themes emerged. Also, the category titles presented in the coding index reflect the refined categories at the end of the analytic process, and as such some of them relate to the theories I have used to explore the data. For example, original categories of 'resources' and 'services' under the heading 'mode of impact' were later grouped together under the title of 'instrumental support', which comes from social support theory. This framework was entered into a Microsoft Excel spreadsheet, with each category assigned a column, and each research participant assigned a row. The rationale for using Excel is explored in the Discussion chapter of the thesis. An extract from the matrix is included in Appendix 10.

3.5.1.3) Labelling the data

The analytic framework described above was subsequently used as a tool to explore the raw data. Each interview was listened to, and the transcript read and re-read, before I attributed sections of text to each of the categories (see Appendix 11 for example). This process is referred to as indexing, or tagging. In addition to this, I identified any new phenomena that were not accounted for by the existing themes, and made note of any additional thoughts about the data. Following analysis of each transcript, I reviewed the framework themes and subcategories, and refined or added information as appropriate, along with flagging where it was necessary to revisit raw data in already analysed cases.

3.5.1.4) Sorting the data

The next stage in data management involved populating my framework spreadsheet with references to (page number, paragraph), and some extracts from the text. This process was conducted to allow for subsequent interrogation of data by theme, and within and across the services sampled.

3.5.1.5) Summarising the data

Following the sorting process, it was necessary to summarise the content in order that it was manageable and accessible. Data was summarised and entered into the framework spreadsheet, noting important phrases *ad verbatim* (to retain the participant's own description), and anything referring to the theme of interest was included, even if it seemed unimportant or irrelevant.(201)

3.5.2) Descriptive accounts

3.5.2.1) Detection, categorisation, classification

Using the organised data, descriptive accounts of phenomena were constructed. This process has three stages; detection, categorisation, and classification.(201) First, detection of phenomena involved identifying the full range descriptions of individual phenomena in the data, for example, identifying where participants described the ways in which ‘who CHWs are’ is important. Second, categorisation involves exploring existing categories within the analytic framework, refining them as necessary, and then assigning data to them. An example from this research is where participants described the importance of workers’ demographic characteristics, which were further separated into age, gender, socioeconomic status, ethnicity and religion. Finally, classification is where groups of categories are organised into higher order ‘classes’. In the example above, the demographic characteristic category, and its various subcategories (for example age) were later allocated to the ‘client –worker similarity’ class.

3.5.2.2) Building typologies

I also attempted to construct typologies for the phenomena observed. Ritchie and Lewis describe typologies as multifaceted groupings of phenomena that combine one or more dimensions to provide a more sophisticated description of the data.(201) However, in practice, the data in this study did not lend itself to typology development. One notable exception is where participants gave differing accounts of the importance of CHWs having shared life experience with their clients. A typology was constructed using two dimensions:

recognition of the relevance of shared life experience, and how shared life experience should be implemented in practice:

- The first group ‘experience prioritisers’ recognised the value of shared life experience and described it as essential to the CHW role
- The second group, ‘experience pragmatists’ recognised the value of shared life experience, but described it as something that needed to be balanced with the feasibility of delivering a universal service, or with other characteristics such as empathy or communication skills.
- The final group ‘experience rejecters’ rejected the notion that CHWs needed shared life experience, or that CHWs should be recruited based on personal life experience

3.5.3) Explanatory accounts

3.5.3.1) Detecting patterns (associative analysis and identification of clustering)

The descriptive data was explored in order to identify ‘matched set linkages’, where participants demonstrating one phenomenon all share another. For example, all of the CHWs who entirely rejected the value of shared experience had a relative lack of shared experience with their own clients.

Participants were also allocated to subgroups, and the entire dataset was then explored by subgroup to detect patterns. These subgroups were defined according to sampling or sociodemographic characteristics (such as Peer Supporter, or ‘works in own community’), except in the one case where a typology was built (described earlier).

Any associations detected were then verified. First, the degree of matching in subgroups was explored, in other words, whether all cases in a subgroup demonstrated the phenomena of interest. This then permitted exploration of the data for possible explanations, including explanations in deviant cases where there was no matching of phenomena.

3.5.3.2) Developing explanations

Explanations of phenomena and their associations were built in an iterative, non-linear way. Potential explanations were explored and tested using analytic summaries and the raw data. The reasoning behind any explanations can be described as being explicit (the direct accounts of participants) or implicit (built by me; what is going on behind the data). The existing empirical literature, and theoretical literature from other disciplines were used to inform the development of explanatory accounts. Some of the explanations offered by the data lent themselves to the construction of a mechanism, and the final stage in the analytic process was to build a mechanism that attempts to explain the ways in which CHWs deliver health improvement. Figure 6 illustrates one of the stages of mechanism-building, where concepts from the data, and the literature were organised and reorganised to build a visual picture of relationships emerging from the data.

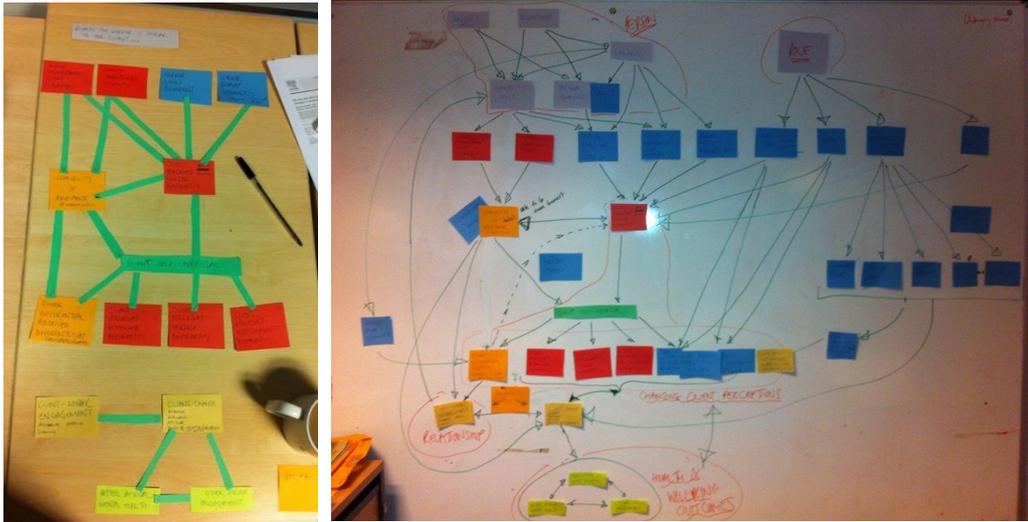


Figure 6: building the mechanism

3.5.4) Validity

A number of approaches were employed to ensure methodological rigour at each stage of the research. At the design stage a range of services (and a range of individuals within services) were selected from which to gather data. This permitted source triangulation,(217) increasing the trustworthiness of the subsequent findings.

During data collection, interview techniques such as active listening,(218) 'mental note-taking' and revisiting of key points, content mapping and mining questions, and deep, iterative probing questions were employed to improve the quality of the data.(201) Also, emergent phenomena were explored in subsequent interviews, in order that the data captured the breadth of participant experience. Data was recorded and transcribed *ad verbatim*, in order to preserve the true accounts of participants.(219)

At the analysis stage, the constant comparison technique was borrowed from Grounded Theory(220), whereby emerging hypotheses were explored across contexts throughout the data in an iterative, reflexive way. In addition, analyst triangulation(217) was utilised, in that supervisors reviewed data, the analytical framework, and interpretation to check the validity of the approach. Theoretical triangulation(217) was also employed at the analysis stage; theory from elsewhere was used to interrogate the data and explain findings. Peer debriefing(221) (the use of the word 'peer' in this context is notable in the context of this research!) was undertaken with supervisors, who scrutinised and challenged assumptions and interpretation. Finally, deviant cases were explored in depth until differences between participants and services could be accounted for.(222)

Throughout the research, a reflexive approach was adopted, which acknowledged the co-production of research outputs in qualitative work, and the importance of acknowledging and scrutinising the position and actions of the researcher. This is done with the intention of minimising any undue influence from the researcher, but also to be transparent about any contextual influences that remain.(223) In order to achieve this, reflective notes were taken during the data collection and analysis process,(224) and active reflection on the process, findings and interpretation was undertaken (see Appendix 12 for example of a reflective note. The analyst triangulation and peer debriefing described above encouraged even greater reflexivity. The approach to enhance methodological rigour are explored further in chapter 11.

3.6) Summary

In this methods chapter I have set out my research aim and objectives, which centre around identifying and exploring the previously inadequately explained mechanism of CHW-mediated health improvement. In order to do this, I have selected a qualitative approach, which aligns with the nature of the research questions, and my ontological and epistemological standpoints. Strategies to protect both myself and my research participants have been detailed. I have described how four CHW services across three geographical areas were selected to participate, and how CHWs and other staff within those services were identified and recruited to take part. I have also recounted the challenges in recruiting participants, most notably service clients, of whom few took part in the study. This chapter also outlines data collection, in the form of in-depth interviews, in addition to a small number of CHW observations. The framework approach to data management and analysis is reported, along with techniques undertaken to enhance the validity and rigour throughout the research process. Chapter 11 reflects in depth upon the selected methods, and the research process itself.

SECTION B) FINDINGS

CHAPTER 4) STUDY PARTICIPANTS

Table 9 details the numbers of participants recruited at each of the four services sampled, including workers, managers and others (for example commissioners). For workers and managers, it also reports the number of workers who were eligible for recruitment at each site. While the original study aimed to include clients, recruitment was problematic and only two participated. Following discussion with supervisors, the data from these interviews was not included in the formal analysis.

Service	Type of participant	Number recruited	Number available	Notes
POWs	Worker	10	34	
	Manager	5	5	
	Other	2	N/A	2 commissioners
Slimming World	Worker	3	7	
	Manager	2	2	
	Other	-	N/A	
M&T	Worker	4	3	1 also a manager*
	Manager	2	2	
	Other	1	N/A	Other stakeholder*
Breastfeeding peer support 1	Worker	10	Total volunteer pool unknown	
	Manager	2	2	
	Other	2	N/A	Other stakeholder*
Total	Worker	27		
	Manager	11		
	Other	4	N/A	
Grand total		44		

Table 9: Summary of participants * one 'other' individual counted twice (a manager in one of the provider settings) as interviewed for two services, and one provider also a manager so counted twice, hence total = 44, not 46

In the remainder of this chapter I outline the main attributes of the CHW services studied, and the CHWs themselves. This will include the service aims, structure and target population. A brief description of workers' main activities ('what workers do') is provided. The workers will be described in terms of recruitment, training and demographic and other characteristics.

4.1) Pregnancy Outreach Workers (POWs)

The POW Service is a Birmingham-based service which the service lead describes as "*paraprofessional*" rather than 'lay' as the latter was perceived by her as implying a lack of training or expertise. The provider, a Birmingham-based 'community interest company' Gateway Family Services (GFS), describes the POWs as a service that works "*alongside other health and social care services to support pregnant women and to reduce factors that can cause infant mortality*" (225) in order to address a range of social risk factors which are often associated with poor health outcomes (Box 6). The workers are described on the POW website as having had "*real life experience of issues that can affect the women that they help, because they understand their local communities.*" The service was established in 2006 and commissioned by the PCT, in response to high infant mortality rates in the city, and a perceived need to address or mitigate risk factors associated with this.

Box 6: Social risk factors in POW clients

Smoking	Diet
Alcohol and drug use	Homelessness or housing issues
English language needs	Lack of social support
Immigration issues	Domestic violence
Social services involvement in the household	Financial difficulties

At the time of data collection there were reported to be 20 whole time equivalent workers (34 in total). The workers are divided into three teams, broadly covering the catchment areas of the three maternity units in the city. Participants reported some *ad hoc* redeployment of workers according to need in different areas. The service has a Programme Lead who also covers other GFS services, and an Administrator. Each of the three teams has a Manager.

According to the participants, POW caseloads are set at around 30 clients per whole time equivalent worker. Clients are allocated a risk category according to the social risks identified on referral, with A being the highest risk and C the lowest. The antenatal booking visit with a midwife includes a social risk assessment that identifies the number of social risk factors a woman has – one is sufficient for referral. Risk categories may change throughout the pregnancy, as new risks emerge and existing ones are addressed. Category A clients are seen once per week or more, category B around once per week for a short visit, and category C clients are seen as needed.

The referral source and eligibility was described as having varied throughout the Service's history. Initially, all pregnant women with social risk factors were eligible, and they could be referred by any agency, or even self-refer. This was later restricted to nulliparous women (who had not given birth before) alone, and only midwife referrals. At the time of writing, the service has begun to accept referrals from other sources, and from both nulliparous and multiparous women again. The Service has also experienced geographical changes in target population, with areas selected on the basis of electoral wards with high infant mortality, high teenage pregnancy, or local commissioning prioritisation decisions.

4.1.2) The POW clients

The clients are pregnant women who have been assessed as having one or more social risk factors. At the time of interviews the POW managers reported the client cohort to have risk factors as follows: 25% one social risk, 40% two social risks, 20% three social risks, 15% four social risks. The clients live in the city of Birmingham, a city of area of over a million individuals, with 42% of residents from black and minority ethnic (BME) groups.(226) In 2010 38% of women giving birth in the city were born outside the UK.(227) There is also significant socioeconomic deprivation in Birmingham. Of the 131 super output areas (SOAs – with average population of 7700)(228), 80 are in the 25% most deprived, 52 are in the 10% most deprived, and 12 are in the 1% most deprived areas in England, though there are also pockets of affluence.(229) The research participants reported working with a diverse range of clients and levels of need.

4.1.3) What POWs do:

Client case work

The POWs each have a caseload of clients and work on a one-to-one basis, though where necessary they conduct joint visits for safety or in order to act as translators for colleagues. POWs work with each client throughout their pregnancy. Contact usually begins with a home visit where the POW introduces him or herself, the service, and explores the client's self-defined needs. Future contact is determined according to the needs of the client and the risk category of the case. It can include accompanying to appointments and agencies, more home visits, telephone calls and text messages, and other less conventional activities

such as shopping trips. The POW participants described a broad range of support activities, including providing information, helping clients to access resources such as food, clothing and furniture, supporting clients to evaluate their circumstances and make decisions about their future, 'being there' for clients, providing behaviour change support (for example smoking), and acting as an intermediary in interactions with professionals (by translating, explaining, or advocating for the client). Participants also emphasised the need to provide holistic support that focused on the client's self-determined needs.

POW activities in addition to casework

In addition to working with individual clients, POW undertake other tasks:

- *Group management:*

POWs run antenatal groups for clients, to address isolation and provide education. The groups were reported to vary in their uptake by clients, and were not a universal provision for all clients. At the time of interview there was a reduced number of antenatal clients, meaning that groups were not all active.

- *Advocacy and activism*

Alongside advocating for individual clients, the POWs advocate on behalf of the client group as a whole. Participants reported speaking in the media about issues affecting clients. They also represent the client group at Children's Centre meetings, and feed back to services about client perspectives. For example, the smoking cessation service was reported as not meeting the needs of teenage clients, and the POWs were able to inform the services about this.

4.1.4) Recruitment of POWs

POWs predominantly reported finding out about the job through advertisements in the local paper. However, there are other routes to applying, including via employability courses offered by the GFS, transfer from other roles within the provider organisation and via health professionals highlighting the advertisement to potential candidates. Research participants on the managerial side reported that word of mouth advertising via local organisations, existing POWs and health professionals are also important routes of recruitment, and that newspaper advertising and NHS Jobs website advertising alone does not attract the candidates that they are looking for.

Recruitment involves an interview and a group discussion with other candidates.

Candidates were described as being recruited based on their experience of working in the “community”, and not based upon their qualifications. The service was described as looking for people who had “*been there*” and lived “*in the community*”. The scope of having ‘worked in the community’ was wide: this could have been in a paid or voluntary role, and did not have to have been in the children and families field. The experiences of the POWs who were interviewed suggested that they all had experience of working with the public, but not necessarily being embedded in their own communities as leaders, workers or ‘natural helpers’.

4.1.5) POW training

POW training consists of a Family and Community Workers Course over twelve weeks, which was accredited at NVQ level 3. This classroom-based course involves completing written assignments. POWs then shadow colleagues on visits for a period before starting independent work. For the initial recruits to the service, where there were no colleagues to shadow, POWs conducted joint visits at first. Following initial training, POWs access other courses as necessary, and undertake refresher training each year. Limited funding has been made available for 10 POWs to access a foundation degree that gave the potential to work in other roles such as social work or nursing.

4.1.6) Demographics, life experience and professional/'lay' status of the POWs

The POWs who participated in the research had wide ranging demographic characteristics:

- All were female, although it was reported that there was one male POW
- Most were in the 30 to 50 years age group, with a small number of older and younger POWs.
- They came from a wide range of ethnic backgrounds
- All of the POWs interviewed were from the city and had local accents
- The majority did not work in the communities where they lived
- Some participants identified as working class, others as middle class, while others did not describe their socioeconomic status. Some described coming from a working class background but having changed their circumstances, becoming wealthier since their youth.

Some of the POWs described having shared life experience with clients:

- Shared current or past experiences with clients included breastfeeding, living in poverty, domestic violence, homelessness, lone parenthood, young parenthood, loss of a child and lack of social support
- All interviewees had 'shared experience' in that they were parents (though not all POWs were)

The professional/'lay' status of POWs varied:

- The service lead stated that POWs were paraprofessional rather than 'lay'.
- The twelve weeks classroom-based training, along with ongoing training in related subjects (for example domestic violence) provided them with skills and knowledge above that of a 'lay' person.
- Several of the participants had degrees, most of which were gained as mature students.
- Some had additional qualifications in related subjects including domestic violence management and nursery nursing
- There was a wide range of previous paid employment: nursery nursing, health care assistant, counselling, retail, telephone work, careers service, post office, weight management, accounting and domestic violence outreach
- Previous voluntary roles included Home Start, schools, probation services, and domestic violence providers
- Most had worked in a number of roles, and several had built their experience and confidence through voluntary work before embarking on a search for paid roles in the social care and health sector.

4.2) The Make and Taste service

The Make & Taste (M&T) Service was commissioned in 2010, and delivers nutrition and cookery sessions to local people in Solihull, using funds from the general practice weight management budget. Solihull is an affluent borough adjacent to the city of Birmingham with a population of just over 200,000.(230) Of Solihull's 133 SOAs, 22 are in the lowest 20% in England, and 2 in the lowest 5%.(230) Significant health inequalities exist between the affluent majority and those residing within pockets of deprivation. The M&T Services are focused in the North of Solihull, which has been designated a 'regeneration area', and where 48% of residents have no qualifications, and over one third of children are living in poverty, and compared with affluent parts of the borough, there is a 10 year and 12 year gap in life expectancy for men and women respectively.(231)

The M&T programme was set up to deliver sessions to parents in Children's Centres and other venues. Workers run courses in nutrition and cooking, and one-off sessions for groups. The team also attend local events to promote healthy eating, offering practical demonstrations and information.

4.2.1) Structure of the M&T service

Each M&T session is run by two workers. At the time of data collection, the M&T Service was delivered by the Coordinator, and three 'bank' staff, who were not health professionals, recruited to deliver the service on a sessional basis as required (i.e. not on a

regular salary). The Service Administrator also delivered sessions if the other workers were not available.

Cookery courses

The regular courses are delivered in Children's Centres to parents of children under the age of five years. Children's Centres are responsible for booking parents onto the courses, and it was reported that there was frequently a waiting list of parents keen to take part.

Interest in the courses was described as being generated through word of mouth, with parents and carers sharing information about courses they had. The parents attending were stated to be a mixture of 'self-referrers' who had expressed an interest in the course, and 'priority clients' that Children's Centre workers had encouraged to attend due to specific needs (described in the next section). Parents are given personalised written invitations to the courses, as staff had found that this improved attendance. Courses usually have six parents booked in for the four weekly sessions, each lasting two hours. Participants described the courses as initially consisting of six sessions, but poor attendance across the entire course led to a reduction to four.

The venues are not purpose-designed and meeting rooms and staff kitchens are used to deliver the programme. The course was described as, and observed to involve a group discussion/education session followed by hands-on cookery. The discussions are topic-based, focusing on a particular issue each week, such as salt or fat. Visual aids are used to illustrate the nutritional value of foods, for example participants are invited to estimate how much sugar was in common processed drinks and sauces by placing sugar cubes next to the bottles and jars. Course participants also take part in food hygiene discussions and

exercises. The weekly cooking activities are topic-based, covering fruit and vegetables, meat, fish and desserts separately. Participants are provided with simple recipes and invited to select one to prepare during the session using ingredients provided by the team. Throughout the session participants are encouraged to discuss their own eating, shopping and cooking habits, and the workers provide encouragement, tips and advice on how to shop and cook healthily and economically. The children are able to spend time in the Children's Centre crèche facility while their parents attend the course, and they are invited to join the group and taste the food at the end of the session. Parents are encouraged to take uneaten food home to share with their families.

One-off sessions

The Service also delivers one-off sessions to interested groups. These sessions are adapted to meet the needs of the client group, the time allowed, and the limitations of the facilities available. Interviewees described discussion with the clients about healthy eating, with the opportunity to prepare and taste some healthy food such as a wrap or smoothie. The Service provides leaflets, and has produced some specific information and recipe cards for some of the client groups to take away following the sessions. These events were seen as an area of expansion for the service, and it was perceived that there was demand for more of this kind of work in local health and social care organisations.

Community events

The workers also run stalls at *ad hoc* local events. These events are run for particular client groups such as families or carers, or occasions such as Black History Month. Events were described as bringing together representatives from a range of health, social care and third

sector organisations to promote their services and provide advice to the public. M&T workers provide information and advice about healthy eating through direct discussion, visual aids and leaflets. Workers also give out samples of healthy foods, particularly fruit and vegetables, to allow people to sample for free things that they had not seen or tasted before. They also provide demonstrations for preparing simple healthy snacks and drinks.

4.2.2) The M&T clients

The client groups were reported to vary. The majority of parents are mothers, though some fathers have attended. The groups were delivered in Children's Centres in the more deprived areas of the borough, though individual family deprivation is not a requirement for parents to access the course. 'Priority clients' with particular needs are often referred to or encouraged to sign up for the courses by the Children's Centre staff. Such needs were described as including nutritional needs, a lack of cooking skills, and low confidence. Participants reported that early on in the programme the courses had recruited more parents from priority groups, but due to poor attendance in this client group, it had been agreed to limit their referral to around two per course, with around four other parents from lower-need families making up the number. The mix of priority and lower-need parents was also felt to benefit the sessions with those with better skills and confidence able to support others. Clients come from a variety of ethnic backgrounds and tend to be younger parents. Some have limited English language but the workers did not report any difficulties relating to this. Cooking skills were reported to vary within the groups, with some clients having never undertaken basic tasks such as chopping vegetables, while others had some

existing skills to build upon. The more experienced cooks were described as helping the other clients.

The Service delivers **one-off sessions** to pre-existing groups on request. At the time of data collection, this included people with learning disabilities, carers, childminders and children, young people and recovering drug and alcohol users.

Promotional and health events are supported by the Service, including ‘taster stands’ at local events for carers and families. As these are open events, the nature of the ‘clients’ is less controlled and was dependent upon who turns up to the event.

4.2.3) What M&T Workers do

Cookery courses and one-off sessions

The M&T workers prepare and transport materials for the groups, welcome participants, facilitate structured discussion on the week’s topic, answer questions and dispense advice, and assisted the clients to select and prepare recipes. Workers are also responsible for safety procedures, group facilitation, clear up, collecting data from clients, and engaging children in the ‘taste’ element at the end of the classes.

Events

At events, workers prepare snacks and activities and set up displays. During the events they offered samples and activities to visitors, and discuss healthy eating and distribute resources (such as recipe cards).

4.2.4) Recruitment

The sessional workers are recruited via NHS Jobs, a national website where all new NHS positions are advertised, and through which candidates apply online, and are shortlisted for an interview. Successful applicants are added to the 'bank' of sessional staff, and are called upon to fill shifts when courses or one off sessions are booked with the M&T Service.

Candidates are ideally required to have experience of working 'in the community' and/or cooking and nutrition knowledge and skills.

The managers expressed a desire to advertise locally (for example via the Children's Centres), but stated that they are not permitted to do this due to NHS employment regulations, creating a barrier to local recruitment. Managers mentioned that they would ideally like to see parents who had been M&T course clients themselves applying for the job, but delays in the recruitment process resulted in interested parties moving on to other things in the meantime. The lack of childcare (there was no suggestion that crèche facilities could be used by workers), lack of 'community work' experience and lack of regular hours were also perceived to be barriers to recruiting ex-clients of the service.

In reality, at the time of data collection, half of the existing team had not been through sessional worker recruitment. One of the workers was an administrator for the team who had been pulled into service delivery due to lack of available workers. Another worker was the team manager.

4.2.5) M&T training

The training programme includes formal courses in food hygiene and first aid, plus 'on the job' training in delivery of the courses. New recruits are paired with an experienced worker while they gain experience in supporting clients and preparing the food. There are no additional qualifications and, according to those interviewed, workers build experience and confidence until they are felt ready to lead sessions with colleagues.

4.2.6) Demographics, life experience, and professional status of M&T workers

Demographic characteristics of M&T Workers:

- The workers who came forward for interview were all female, white British and over the age of 40 years.
- All participants were parents.
- None of the workers came from or lived in the areas in which they worked. Most lived in the borough, but workers had come from outside of the region in the past.
- All those interviewed were working in other jobs alongside the M&T role, including School Nurse Assistant, cook and administrator.
- Interviewees described themselves or other M&T workers as previously working in roles classed at the 'skilled manual' or 'skilled non-manual' level or above, and were not qualified at degree level.

Life experience of M&T Workers:

- Workers were all parents, like their clients
- Other than experiences as parents there were no clear accounts of 'similar lives', such as having struggled financially, being a young parent, living in a deprived area, having low levels of cookery skills and knowledge or of being a single parent.

Professional/'lay' status of M&T Workers:

- Previous paid work included Health Trainer (another CHW role), police officer, caterer/cook, administrator, physiotherapy assistant, care work, and similar work to M&T in other authorities.
- There was a varied skill level, and while none of the workers was a health professional, most had a skill level in 'community work' or nutrition that was above what would be expected of a 'lay' person.

4.3) Breastfeeding Peer Supporters

The Peer Supporter Service is part of a suite of breastfeeding support services in Solihull. It is commissioned by the local PCT, NHS Solihull, and provided by Solihull Community Services, part of Heart of England NHS Trust. The service was established in 2009.

4.3.1) Structure of the Breastfeeding Peer Support service

The service is managed by two professionals with Health Visiting and Midwifery backgrounds. The suite of services includes antenatal breastfeeding classes run by

volunteer Peer Supporters with or without a midwife present, seven breastfeeding cafes across the borough run by Peer Supporters; telephone and face to face support (at home or at a breastfeeding café) from one of the expert service managers (not Peer Supporters); a breast pump loan service; local marketing and health promotion activities; and training of local workers (for example Family Support Workers in Children's Centres) to provide breastfeeding support. The Peer Supporters are volunteers, (excepting any paid workers in existing Children's Centre roles) who have been through the training scheme) and they undertake several roles. Their primary role is in manning breastfeeding cafes across the borough. At the time of interview there were around ten 'active' Peer Supporters across the seven cafes. It was not possible to be specific about the number of Peer Supporters as it was not clear how many had returned to work or terminated their involvement. In addition to the café work, the Peer Supporters speak at antenatal breastfeeding sessions at Children's Centres, and contribute to lectures to healthcare students. They also attend promotional events, including 'flashmobs' at local venues, contribute to social media activities, and they have featured in a social marketing campaign ('Be a Star') for the area.

The seven cafes

- Run either weekly or fortnightly
- Are mostly exclusive breastfeeding cafes (one was a general baby cafe)
- Are located in Children's Centres in rooms with comfortable seating, toys and a private space for one-to-one support
- Usually have two Peer Supporters present (the same Peer Supporters each week apart from covering absence)

- Often also have a specialist present (midwife, breastfeeding specialist and service facilitator) and Children’s Centre staff are often on hand
- Welcome partners, family or friends
- Provide refreshments

4.3.2) The Peer Support clients

The borough is relatively affluent but with pockets of deprivation in the north. Rates of breastfeeding are higher in the south (meaning a higher demand for services) and lower in the north (where the health need is greatest, but the demand was reported to be lower). Participants described how the Service aimed to address breastfeeding rates in general, *and* breastfeeding inequalities, though in light of the differing demand and need this presented a real challenge. In general, the target clients were described as any women who are pregnant or with young children who want information about or support in breastfeeding. Breastfeeding cafés are located across the borough in areas of lower and higher breastfeeding prevalence.

According to the interviewees, the cafes are used by:

- Mothers in the early weeks of breastfeeding their child/ren.
 - Most ‘clients’ fall into this group.
 - Some attend for advice, and do not stay once their issues have been addressed.

- Others attend looking for the social and support elements (+/- advice), and stay longer, participating in conversations in a group or on an individual basis with other mothers and Peer Supporters.
- Fathers on paternity leave, or female friends and relatives sometimes attend with the mothers
- Mothers who have been breastfeeding and attending the cafe for several months, although
 - This does not appear to be the norm across the Service.
 - The women attend for the support and contact for them and their children, and the focus is less on breastfeeding advice.
 - These women provide informal support to other mums, and Peer Supporters are recruited from these groups.

Women are referred to, or find the cafes via

- The aforementioned specialist midwife and service facilitator (professional) either antenatally or postnatally following one to one telephone or face to face support from the midwife (reported to be a common source of referral). Women access the midwife/facilitator through self-referral or by referral from a health professional.
- Other health professionals
- Antenatal breastfeeding classes
- The internet
- Local leaflets in health or children's centres

Attendance reportedly varies widely even in the same cafe, in the range of one to fifteen mothers, plus their children.

4.3.3) What Peer Supporters do

Peer Supporter activities in the Breastfeeding Cafés:

Peer Supporters described a range of responsibilities at the cafés. They prepare the room with seating, toys, and refreshments for women and their families. They facilitate the group, welcoming clients and encouraging discussion among them about breastfeeding, parenting and life in general, including sharing their own experiences. Peer Supporters also speak to clients on a one-to-one basis to establish whether they would like any individual support. Individual support may include listening, advice (about 'normal' breastfeeding and infant behaviour, or about problems), comforting or reassuring distressed women, the assessment of, and advice about breastfeeding practice (for example by observing a feed), help to work through difficulties, referral or signposting to other agencies (for example breast pump loan, Children's Centre services).

Peer Supporter activities outside of the Breastfeeding Cafés:

Patient education

Peer Supporters attend antenatal classes at local Children's Centres on a regular basis, to answer parents' questions about breastfeeding.

Professional education

Some of the Peer Supporters have been invited to talk about their experiences (and for some, to provide an opportunistic practical demonstration) to trainee midwives at a local university.

Local activities

- **Events:** Several of the Peer Supporters support the Breastfeeding Support Service at local events and venues on an *ad hoc* basis. Some of the Peer Supporters reported participating in a 'flash mob' at a local shopping centre, where a group of mothers congregate for a 'mass breast feed' at a particular time, publicised in local media and on social media.
- **Social media:** the Breastfeeding Service has a Facebook page and Twitter account. The Peer Supporters contribute to the discussions, post information, and share photos. This is also used to advertise and provide accurate information on cafe schedules, and promote events such as the flashmobs. Mothers in the area can join the group and post questions, offer support, share jokes and local information. It is also used by some mothers to sell second hand baby equipment. The Peer Supporters did not speak in detail about social media. This is likely to be due to it being a relatively recent development at the time of study data collection.
- **Social marketing campaign:** some of the Peer Supporters are the 'faces' of the 'Be a Star' social marketing campaign, a project aimed at young women. The campaign focuses on personal stories, and presents posters and leaflets of young mums looking like 'stars', breastfeeding their babies in glamorous photoshoots, some of whom are Peer Supporters.

4.3.4) Recruitment of Peer Supporters

Peer Supporters are recruited by word of mouth, at events (for example The Baby Show, an exhibition at the National Exhibition Centre, a venue local to the Service) and opportunistically at the cafés (which were originally run by the professional service managers only). A number of the Peer Supporters belong to a group of mothers who became friends on the birth of their first children, attended the cafes, and went on to undertake the required training to become Peer Supporters (mostly at the same time). Newer recruits are previous clients themselves, though the service had not been up and running when the first recruits became involved.

There appears to be an informal recruitment process occurring in the cafés. First, a woman receives support as a client. Second, she begins to offer informal support to other women at the cafes. Finally, a Peer Supporter or professional suggests that she might like to train as a volunteer.

It was reported that Peer Supporters must have breastfed at some point, preferably recently. They are required to be local, and to have an interest in breastfeeding. It was intended that the Peer Supporters are similar to their clients in that they “*come from similar backgrounds,*” that they are women that the mothers attending the groups “*could be friends with,*” and true ‘peers’ with “*mutual understanding*”.

4.3.5) Peer Supporter training

Training consists of a locally developed, five-week, two-hour per week course, run at Children's Centres, with crèche facilities for trainees' children. Training is organised on an *ad hoc* basis when sufficient volunteers became available for training. At the time the interviews were conducted, the training was not accredited. Peer Supporters are trained in several areas: communication skills training using the Solihull Approach 1 (a locally developed approach for anybody working with children and families), statutory and governance requirements, breastfeeding (anatomy and physiology, the breastfeeding relationship, common problems and technique), and discussion and reflection on Peer Supporters' own breastfeeding experiences. Some trainees have been funded to follow the National Childbirth Trust accredited training programme, though this is not possible on an ongoing basis due to financial constraints. Participants described the advantages of securing an accredited qualification; something for the CV, evidence of valuable activity while on maternity leave, potential to lead to further qualifications and employment. The service leads reported an interest in securing accreditation for their own training programme in order to provide something recognised and transferrable to the Peer Supporters.

4.3.6) Demographics, life experience, and professional/'lay' status of the Peer Supporters

The Peer Supporters had the following **demographic characteristics**:

- All the participants were white, and aged between 25 and 35 years (though at least one had a partner belonging to a non-white ethnicity).

- The majority had become mothers after the age of 25 years.
- The majority lived in more affluent neighbourhoods and were from managerial or professional backgrounds.
- Peer Supporters reported living locally to the cafés they served.

The Peer Supporters reported a number of relevant **life experiences**:

- All had breastfed their own children within the past three years.
- Some were still breastfeeding.
- The majority had breastfed for an 'extended period', i.e. more than one year.
- There was an equal spread of full time mothers and working mothers.
- Most had not found breastfeeding easy, but had an overall positive experience.
- Most had attended local breastfeeding cafes.
- Most had not received help from trained Peer Supporters when starting to breastfeed (usually as the service had not been in place).

Professional/'lay' status of Peer Supporters:

- A number of the Peer Supporters were from professional backgrounds (for example teaching, banking), though none related to health
- None of the participants reported qualifications relevant to breastfeeding
- The training for the role was relatively brief though provided Peer Supporters with knowledge above what would be expected of a 'lay' person.

4.4) Slimming World (SW) Consultants

Slimming World is a private sector weight loss organisation that was founded in Derbyshire in the 1960s. It is primarily a group-based programme, and there are over 10,000 groups across the UK. (232)

4.4.1) Structure of Slimming World

Groups are run by Slimming World 'Consultants', who have all been 'members' of a group and been through the programme before training to deliver sessions. 'Consultants' are self-employed, and groups are operated as franchises. 'Members' self-refer and groups are open-access (individuals can simply turn up provided they pay). Groups are run in local community venues (for example church halls), and accommodate up to fifty members per session, with members paying a fee per session. Some members do not pay, having received vouchers from their local NHS to attend, and other members who have reached their target weight are permitted to continue attending for free, to help maintain their weight and to provide support and inspiration to others. Groups run at various times, to fit in with members' work and family schedules.

The Slimming World approach is focused on 'Food Optimising', where members are encouraged to eat as many 'Free' nutritious, low energy dense foods as they wish (for example lean meat, vegetables), supplemented by more limited amounts of 'Healthy Extras' (for example cereals, dairy) and a specifically limited number of 'Syns' (energy dense treats such as alcohol and biscuits). Members can eat until satiety, and do not have to count

calories or limit portions of 'Free' foods. There are three versions of the plan: 'Extra Easy' (where many carbohydrates are 'Free'), 'Original' (with a lower 'Free' carbohydrate content) and 'Green' (for vegetarians).

Slimming World sessions have two phases. First, all members attend, are weighed and have informal social time (new members are also seen individually and taken through the programme during this time). Second, those members who only want to be weighed leave, and those wanting support stay behind. This second phase involves group discussion of a variety of topics and personal experiences, and reporting of successes and challenges in members' weight loss that week. Members contribute to story-sharing, celebrating successes, advice-giving and supporting those with difficulties.

The sessions are supported by online content,⁽²³²⁾ a magazine, recipe books and snack products (these items are available to buy at group sessions). Slimming World has recently developed an entirely online package for individuals who do not want to attend regular meetings; this was not observed as part of this research.

4.4.2) Slimming World clients

Interviews and observations suggested that Slimming World clients in the groups studied

- Are predominantly female (male members often attend with their female partner)
- From a wide range of age groups, from teenagers to pensioners. Some under 16 year olds attend with a parent who is a member (they follow a separate plan focused on

behaviour change and not weight reduction). Some clients bring their children along to groups.

- Predominantly white British, as is the population local to the groups in the study.
- From the local area ("*a couple of miles radius*").

It is not possible to comment on the socioeconomic status of members at the group, as this was not known by the Consultants.

Compared with the other CHW interventions in this study, Slimming World is unique in that it does not have a specific target population. Rather, the service is provided to whoever turns up. The degree of weight reduction need in the clients varies widely: some need to lose a few pounds while others have significant obesity. Some members have weight-related health problems such as hypertension and diabetes, while others are otherwise healthy. Some are looking to lose weight in relation to a specific goal, such as a wedding, while others seek more long-term goals. Participants also reported that their members' attendance behaviour varies: some attend sporadically, some 'shop around' groups, and others move to a different group due to embarrassment following poor attendance. Some continue to attend even once they have achieved their 'target weight'. A number of members are Consultants from other groups; it was reported that even Consultants require ongoing support as a member, and that their own 'journey' is not complete simply because they have trained as a Consultant.

4.4.3) What Slimming World Consultants do

Slimming World Consultant activities in the groups

Slimming World Consultants are responsible for organising their groups, including the marketing of the service in their local area. They set up the room for each session, and during the first phase of the group welcome members, prepare refreshments, and induct new members. The Consultants also have a team of volunteers who assist in the setup, refreshments, and undertake the weekly weigh-in and payment collection of those attending the group. During the second phase of the session the Consultant facilitates group discussion of successes and challenges in weight loss, diet and exercise, involving all those in attendance, and exploring any issues. The focus is on clients sharing their tips and stories, though Consultants also contribute from their own experiences. The Consultants also share information about Slimming World resources (books, websites), and information about diet and exercise in general. Consultants provide encouragement and praise to members of the group.

Slimming World activities outside of the groups:

Member support

Consultants provide ongoing support to some members during the week: members are permitted to send text messages to them requesting support, and Consultants proactively contact members if they are perceived as needing extra motivation, are experiencing difficulties, or if they have an event that might sabotage their eating plan, such as a family party.

Marketing

Consultants are responsible for marketing their groups. This includes advertising in local press, at local venues, delivering leaflets and erecting banners in prominent locations.

Business administration

As Consultants are franchise owners, a number of hours per week are devoted to scrutinising the facts and figures, planning, and attending administrative and training meetings.

4.4.4) Recruitment of Slimming World Consultants

Consultants report seeing advertisements for recruitment at their groups and in promotional materials. Slimming World run events for members who are interested in becoming Consultants. It was not clear whether anybody who comes forward is rejected, or whether all interested members are offered training and a franchise. All Consultants are members, and must be "*well on the way*"(233) to reaching their target weight (though it is not clear from the materials exactly what this means).

4.4.5) Slimming World Consultant training

New Consultants undergo three months of induction and training. They receive regular one-to-one training and support from their local Team Developer (a Consultant who is also in charge of training and support for the District). They also shadow other Consultants, and attend three two-day training sessions at Slimming World Head Office in Derbyshire. The

training covers all aspects from setting up a group, promotion, member support and the Slimming World programmes. Consultants receive ongoing development and training through team meetings and annual refresher training at Head Office.

4.4.6) Demographics, life experience and professional/'lay' status of the Slimming World Consultants

Slimming World workers in this study had the following demographic characteristics:

- All of the workers observed and interviewed were female.
- All were white British, and aged between 30-50 years.
- All lived locally to their groups and had local accents
- Consultants did not report their social class, but had a range of employment backgrounds including administrative work, specialist NHS work, and organisational psychology. A number held University degrees.

Slimming World workers described the following life experiences:

- All Consultants had previous history of being overweight, and of weight reduction as Slimming World members.
- There were different histories: some had dramatic weight loss stories following significant obesity, others had achieved more moderate weight loss and had not been as overweight to begin with.

Professional/'lay' status of Slimming World Consultants:

- Some of the Consultants had degree-level qualifications and/or experience in health and psychology.
- Other consultants had little or no background in health or behaviour change.
- Slimming World training is relatively short, and encompassed business and marketing in addition to behaviour change support, so it is unlikely that Consultants could be considered 'professional'. However, the training covers a specially designed programme (IMAGE therapy, Food Optimising) that incorporates psychological approaches including transactional analysis, motivational interviewing and compassionate mind theory. These could be regarded as beyond the scope of a 'lay' person.

4.5) Summary of descriptive findings

The CHW services recruited to this research were diverse in aims, approach, and target population. The laity of the workers also demonstrated a broad range from volunteer, minimally trained Peer Supporters, to 'paraprofessional' POWs with extensive training and skills. The following sections will explore the data in detail, and propose a mechanism to explain how the CHWs studied aim to deliver health improvement to their clients.

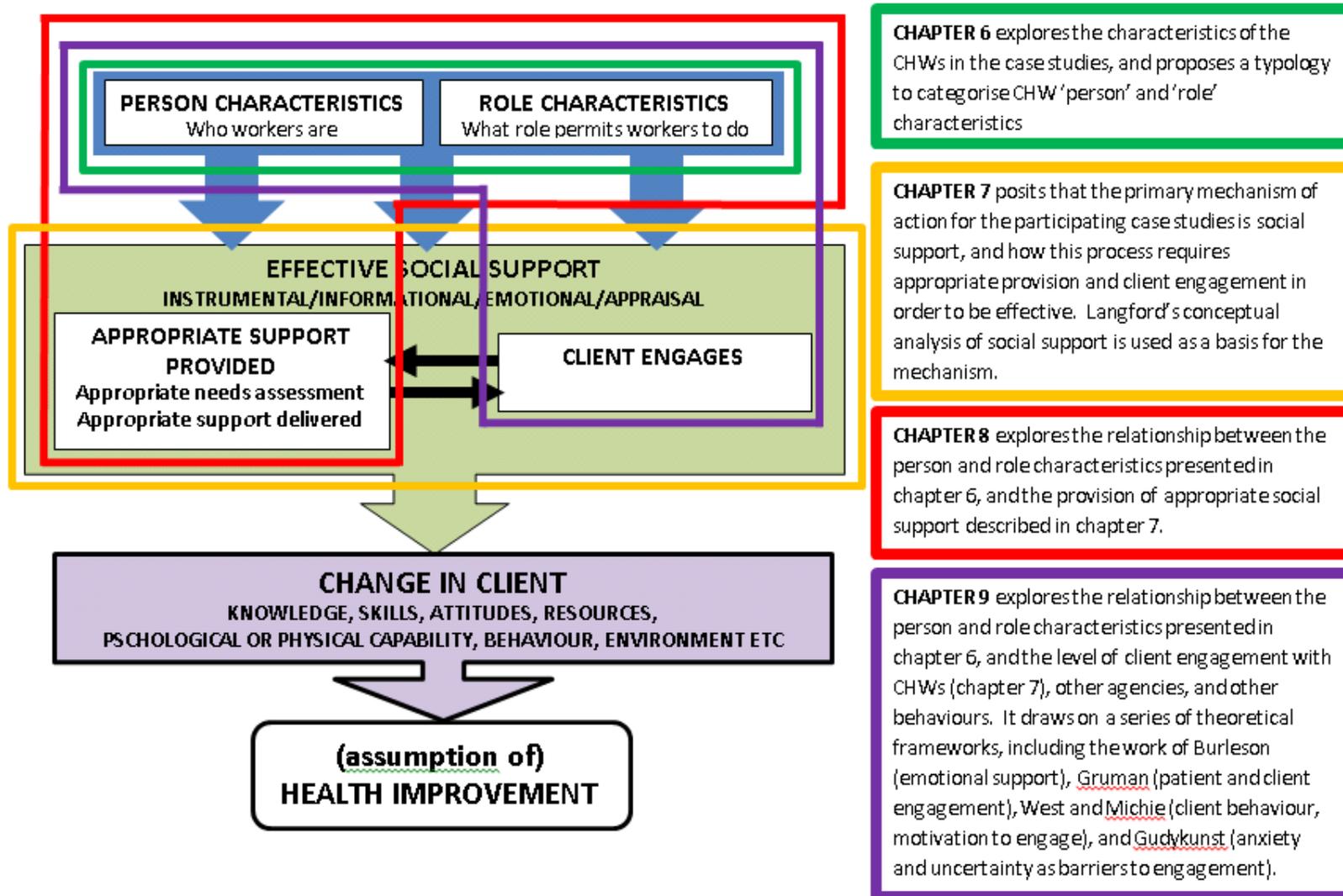
CHAPTER 5) INTRODUCTION TO THE ANALYSIS

In the following pages I will

- Set out the findings from the empirical work
- Relate these findings to wider theories
- Propose a mechanism for how CHWs aim to deliver health improvement based on this analysis

Overleaf I present a pictorial representation of the mechanism, and the relevant sections of the thesis, to orientate the reader. The diagram depicts my proposed mechanism of how CHWs aim to bring about health improvement, central to which is the concept of social support. Each section of the findings is colour-coded, and each colour is used to outline the relevant portion of the mechanism, and to label a brief description of the relevant section to the right of the mechanism diagram.

Figure 7: The CHW mechanism proposed in this thesis, and its relationship with the thesis structure



CHAPTER 6) CHW CHARACTERISTICS

Participants in this research highlighted a range of characteristics of CHW roles, and of the people in CHW posts that they felt impacted on CHWs' ability to provide effective support to their clients. This section reports and explores these characteristics, which fall into two broad categories:

Person characteristics (Chapter 6.1)

CHWs were reported to give effective support because of who they are, or their 'person characteristics'. For example, a British Asian worker who has had an arranged marriage is reported to be able to engage well with and support Asian families as a result of their *similarity*.

Role characteristics (Chapter 6.2)

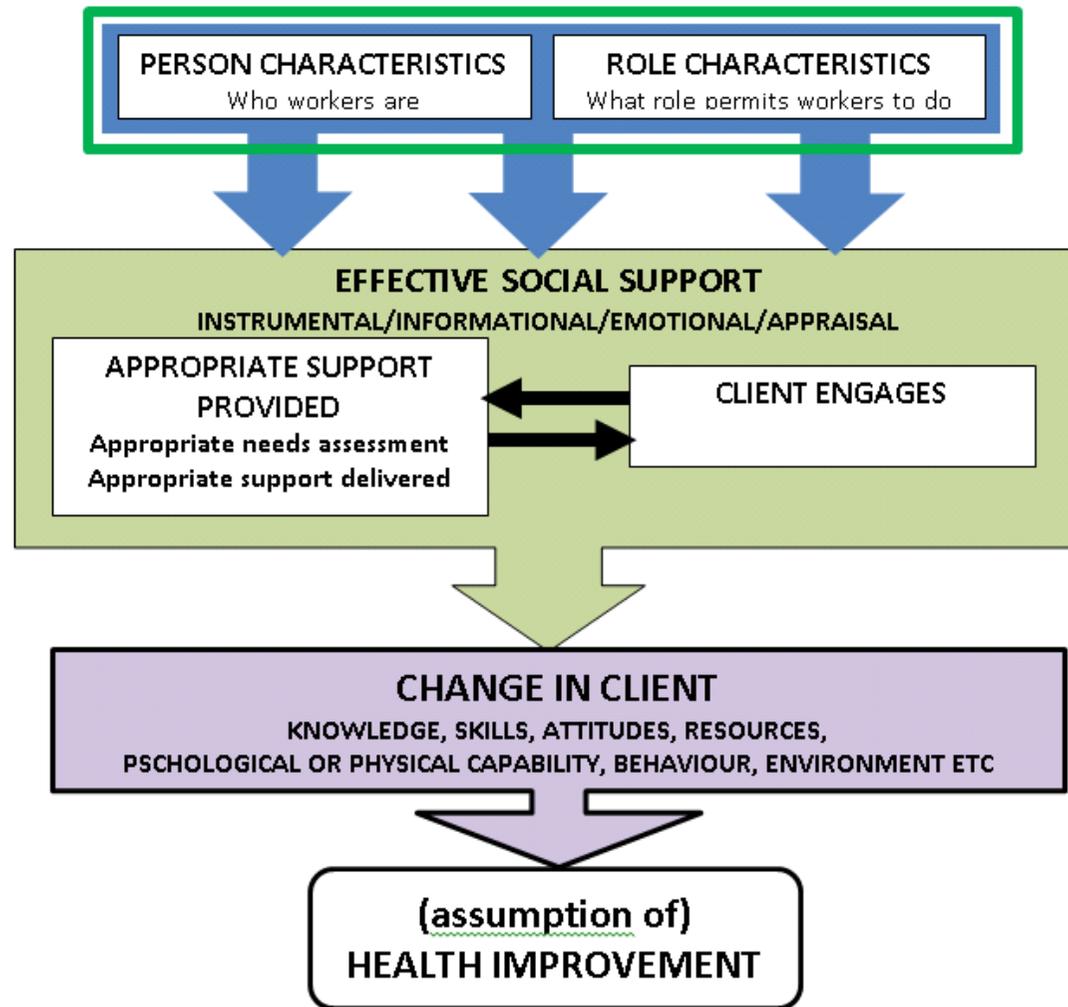
CHWs were reported to give effective support because of what the role permits them to do, or the 'role characteristics'. For example, a worker who has plenty of *time* can listen to a client offload all of her breastfeeding problems, and work through solutions, without needing to rush off to another appointment. This improves her client's wellbeing and breastfeeding self-efficacy because the client feels emotionally supported, and empowered by arriving at her own course of action.

This section of the thesis attempts to classify and analyse the data to formulate groups of characteristics within these two broad categories. However, it is important to acknowledge

that this is an imperfect process, and in reality there is overlap and interdependency of some of these characteristics. For example, some would argue that whether a worker is a volunteer or a paid employee is a person characteristic, while others might describe it as a role characteristic. Managing and synthesising the data has required the construction of fixed categories which in the real world are more ambiguous. As such, other researchers, given the same task, may have categorised the data slightly differently.

Figure 8 illustrates the relevance of this section to the overall thesis.

Figure 8: The CHW mechanism, chapter 6



CHAPTER 6 explores the characteristics of the CHWs in the case studies, and proposes a typology to categorise CHW 'person' and 'role' characteristics

6.1) Person characteristics: CHWs mediate health improvement because of who they are

The person characteristics described by participants as affecting the CHW-client interaction can be organised into five over-arching categories and are shown in Box 8. This section describes these characteristics, with selected exemplar quotations from the interview transcripts, to illustrate some of the concepts.

Box 7: CHW person characteristics which mediate health improvement

- Knowledge
 - Population knowledge
 - Specialist knowledge
 - Service knowledge
- Skills
 - Communication
 - Community language
 - Specific skills (e.g. breastfeeding)
- Personal qualities
- Similarity to the client group
 - Shared demographic characteristics
 - Gender
 - Age
 - Locality of residence
 - Socioeconomic status
 - Ethnic group
 - Religion
 - Shared experience
 - Shared non-professional status.
- Volunteer or paid

The presentation of the worker characteristics is arranged differently to the related literature review presented in chapter 2, and this requires some explanation. The review tackled similarity first, as shared client and worker characteristics was a logical next step following the critique of CHW nomenclature, as many of the terms used related to similarity ('lay', 'peer', 'community'). Looking at the empirical doctoral work, the data suggested that, while apparently of importance in itself, similarity was also a conduit to knowledge, skills and personal qualities, and there were overlapping accounts of these phenomena. For example, a Peer Supporter knows that her clients will find the early weeks of breastfeeding challenging as she has been through the experience herself. However, similarity was not the only route to knowledge, skills or personal qualities in the services studied. Similarity is a complex concept with many related characteristics, and requires considerable unpicking in my analysis. When I reached the stage of presenting my findings, I felt that it was more logical and appropriate to tackle the relatively straightforward characteristics of CHW knowledge, skills, and personal qualities first, and follow this with my interpretation of the concept of client-worker similarity, including its impact on the aforementioned person characteristics.

It is important to note that none of the services explored in this study were reported to exploit workers' natural networks. Other research has highlighted the relevance of whether connections between workers and clients are 'natural' or 'created', in other words, whether clients and workers belong to the same social network, or whether they have no relationship.(108) These individuals may be selected due to their high status or well-connectedness in a population, as might be the case with a local matriarch, or an employee whose colleagues tend to go to for advice. In this sense, one of the 'person characteristics'

in these programmes is the worker's connectedness to, and status in the service's target population. While this is related to 'similarity', it suggests something more. The CHW services studied here did not exploit existing social ties, and none of the participants gave accounts of working with individuals they already knew. The initial scoping work for this study, and the supporting literature review both suggest that 'created' social networks are the norm in English CHW services, and programmes tend not to be designed to exploit 'natural' social networks.

6.1.1) Knowledge

Participants described three areas of knowledge that CHWs drew upon to aid them in their work:

- Population knowledge
- Specialist knowledge
- Service knowledge

6.1.1.1) Population knowledge

'Population knowledge' encompasses any kind of information about the target groups and communities that the services serve, including who the people are, how the populations live, and traits such as sociocultural norms, values and behaviours. This knowledge could be acquired through CHW membership of particular population, through training or

experience in the CHW role. In the following example, a M&T Worker indicates her knowledge about the educational level of her clients.

“A lot of the people we work with possibly left school at 15 and 16, may or may not have qualifications, so the last thing they want is that school type environment.”

M&T Worker 1

6.1.1.2) Specialist knowledge

Specialist knowledge is knowledge which ordinary members of the public would not be expected to have. Study participants described some specialist areas of knowledge in discrete subjects such as nutrition. As with other elements of knowledge and skills, some were acquired through direct experience, but others were learned through work experience, training, or from colleagues. The range of subjects included food, cooking and nutrition; mother and infant behaviour; and breastfeeding.

“[Peer Supporters] have some training. So, you know, to be honest with you most of them know it inside out, and when they were assessed by UNICEF auditors they were very impressed...they actually remarked on how knowledgeable our peer supporters are.”

Peer Supporter Manager 2

6.1.1.3) Service knowledge

The term ‘service knowledge’ refers to the workers’ understanding of local facilities, organisations, resources and staff that are available to clients. This was acquired through training, and experience in CHW roles. POWs additionally conducted formal ‘community mapping’ activities, where they purposely explored local health, social care and third sector provision, to produce a directory of services to which they could signpost or refer.

6.1.2) Skills

Participants across the services sampled identified three groups of skills:

- Communication skills
- Community language skills
- Specific skills

6.1.2.1) Communication skills

One of the most commonly reported skills that participants described as important was communication. This included:

- The ability to speak to clients in an appropriate way (vocabulary, manner etc.), *“It's about us giving them the facts...but in their lingo.” POW Manager 2.*
- Listening, and staying focused on the client's needs (for example not talking about one's own experience),
“Listening is really hard, actually, because most people want to bring it back to them and go ‘oh, that's the same as me.’” Peer Supporter 3.
- Problem solving, for example the M&T Workers support clients to rescue recipes when something does not go according to plan, rather than seeing it as a failure.
- Showing concern and empathy,
“[Mums] just feel like, 'Oh, I'm late or whatever.' [and I say] 'No, you're doing really well to get out,' because they are...doing really well to be out and about on their own with a baby.” Peer Supporter 5.
- Communicating effectively with other agencies, for example telephoning Social Services on a client's behalf (this attribute was only reported in the POW service).

- Managing groups effectively. Participants described remembering client's names, encouraging interaction and mutual support, and ensuring nobody is left out in group settings.
- Communicating with specific client groups, for example one of the workers in the M&T Service had previous experience of working with learning disabled clients.

There was a sense that some individuals naturally have good communication skills, while others acquired them through training or practice. CHWs also gave accounts that suggested there was a range of communication skill level within services, with some workers better communicators than others.

6.1.2.2) Language

Shared language was seen as useful for obvious reasons: client and worker would be able to communicate easily, and an interpreter would not be needed. This characteristic was only a feature in workers who had acquired a language naturally as a result of their family language, and only appeared in the POW service.

"We really find it useful when people speak the community language... We still use a lot of interpreters because there's just so many languages that we can't deal with."

POW Manager 1

6.1.2.3) Specific skills

Participants described a small number of specific skills that provided advantages to workers; these were breastfeeding, cooking and counselling.

“The one common denominator is that they have breastfed. That’s all we need.”
Peer Supporter Manager 2

Mode of skill acquisition varied; for example Breastfeeding could only be acquired through direct life experience; Cooking could be learned in a natural environment or through employment or training; and counselling was a formally taught skill.

6.1.3) Personal qualities

Participants reported CHWs as having a range of what I have defined as ‘personal qualities’, which had a positive impact on their ability to support clients. In short, these qualities are what one might consider positive attributes, associated with being a ‘nice’ or ‘good’ person.

These included:

- Being a **‘people person’**, inclined to engage with and support others.
- **Empathy**, seeing things from the client’s perspective (this was often described as related to shared experience)
- **Compassion**, being willing and able to care, *“I want to be there. I want to be there for them.”* POW 6.
- Holding certain **values and attitudes**, for example not being racist
- Being **non-judgmental**, see below
- **Persistence**, not giving up when it is difficult to provide client support, for example POWs chased other agencies to find solutions to client problems
- **‘Going the extra mile’**, working beyond expectations, for example POWs and Peer Supporters reported working late to support their clients

- Being of a **positive disposition**, participants described CHWs as having a range of attributes that I have labelled 'positive disposition', including a sense of humour, being friendly, welcoming, approachable, fun, uplifting, positive and inspiring.

"You can hear the laughter and they make it fun. And I think that's an important thing sometimes, rather than being a bit too stuffy." Children's Centre worker 1.

One of the personal qualities, being non-judgmental, is worth exploring in a little more detail. This characteristic was reported often, and considered important to the CHW role by many.

"I would never ever get into where my opinions are, and my judgement, or what I think would never ever influence how I deal with my clients...No matter what you think or what you say, you've come to support these people, and if you can't deal with them then you shouldn't be in this job". POW 5

CHWs related how they were non-judgmental in their work with clients, in that they were accepting of their lifestyles and sociocultural norms, and did not allow potentially negative client attributes (such as racism) to influence their support activities. While it may be related to underlying values and empathy, a number of the POW participants described how they held particular attitudes in their private lives (for example around immigration or the way in which people lived), but how they were able to suspend these and work in a non-judgmental way with their clients. Of course, CHW accounts cannot provide concrete evidence of their actual behaviour with clients, but if this 'switching off' of attitudes does occur, empathy may play a part in this process. Participants discussed non-judgmental workers as avoiding making negative assumptions about clients based on prejudice or partial information, and accepting the way in which clients live, regardless of whether this fits with their own values or norms. This included not judging clients' experience, decisions, behaviour, and attitudes. There was a range of contexts in which this concept operated,

and it is important to note that participants gave accounts of being non-judgmental in one situation (for example regarding decisions to breastfeed) while acknowledging that they may find it difficult not to judge in others (for example avoiding negative assumptions about low income mothers). Describing oneself as 'non-judgmental' does not necessarily mean that an individual will have this quality in all circumstances; indeed some participants acknowledged that they had judgmental attitudes to some groups, and that this would have a negative impact if they were to work with them.

6.1.4) Similarity to the client group

Participants identified a range of characteristics that worker and client might share, and gave accounts of how these similarities in characteristics had a positive impact on the support that they provide. These shared characteristics can be classified into three groups:

- Demographic characteristics,
- Shared experience
- Non-professional or 'lay' identity.

6.1.4.1) Shared demographic characteristics

A number of demographic characteristics were reported to be associated with the effectiveness of CHW work when they were shared between worker and client:

- Gender
- Age
- Socioeconomic status

- Locality of residence
- Ethnicity

Gender is self-explanatory.

Age was described in terms of life stages, such as teenage years, youth, and 'thirties', rather than numerical age.

Socioeconomic status

While participants were not asked directly about their socioeconomic status, many disclosed information about their own and others' perceived level of affluence or deprivation. They discussed these things in terms of class (for example working class), income, educational level, and past struggles to make ends meet financially. *"So I knew my place. I knew I was working class."* (POW 1). Any attempt to discuss this issue is beset with difficulties as individuals' definitions of class and affluence vary widely, and can be subject to cultural, as well as economic inferences.

Several participants framed class discussions in terms of geographical community, for example by comparing the working class communities they grew up in to the areas they now worked. Often this was layered with references to other characteristics, such as local accent, ethnicity and shared values. Some discussed a longitudinal element, describing a 'working class' upbringing, and subsequent social mobility, including financial, educational and material improvements. This is best described as shared experience (see page 151)

rather than shared socioeconomic status, as the workers have ceased to be socioeconomically-concordant with their clients.

Locality of residence

Participants generally discussed the concept of 'locality' in terms of the town or city where workers and clients lived. However, many referred to smaller localities within towns and cities, such as electoral wards, or referred to physical distances, as in the quote below.

"If you want a rapport with them I think it's more important, not essential, but I like that... 'oh, I live round the corner from you'." Peer Supporter 3

There were also two different dimensions of locality; where a person is originally from, and where they currently live. Some of the workers had at some time lived in their client catchment area, but had moved away (as with socioeconomic status, this is shared experience rather than current shared locality).

Ethnicity

Ethnic diversity was only a feature in interviews with participants from the POW service. While there were a small number of BME clients and workers in the other three services, they were the exception, and the issue of ethnicity was not frequently discussed.

Ethnicity, while an apparently straightforward demographic characteristic, is associated with a certain degree of ambiguity. Some participants discussed physical indicators of ethnic or cultural background, such as dress (for example wearing a headscarf, or hijab) and skin colour. Others referred to countries of heritage (for example Somali, Pakistani, Indian), regions of heritage (for example Asian) or minority populations (for example traveller). Few

of the frontline workers discussed matters of ethnicity in 'official' terms, as might be used by the Office of National Statistics (for example black African, Asian British Bangladeshi). Ethnic terms were also used to refer to sociocultural norms, for example in discussing the traditional South Asian family approach where women don't leave the home, and are looked after by relatives until six weeks after the birth of their child. Some participants introduced migration into discussion of ethnic background, distinguishing UK born minority clients from those who had migrated. The recency of migration was also a qualifier in discussion of ethnicity. Some factors which often correlate with, but are not unique to ethnic group were also mentioned, in particular language spoken and religion. Language was mentioned frequently in the POW Service, particularly in the context of South Asian languages, and it is discussed at length in the 'skills' section of the thesis (Section 6.1.2). Faith or religion (specifically Islam) was described in association with certain ethnic groups, though this was not always the case.

6.1.4.2) Shared experience

It is important in this section to differentiate between shared demographics and shared experience. Demographic groups can be described as having shared experience, for example they know what it is like to live in a deprived area, to be female, black or poor. This section focuses on experiences that are not dependent on *current* shared demographics. For example, where a client is a teenage parent, her worker might be older than her, but may also have become a mother during her teens thus they share experience without shared demographics. It was suggested that the recency of experience, such as

whether it is months or years since a Peer Supporter ceased breastfeeding, impacted on the relevance of this shared characteristic. This is discussed on page 254.

Participants across the services discussed the relevance of their own experiences to the impact of the services. These included:

- Life experiences
 - General, relatively common life experiences such as being moderately overweight, pregnancy, motherhood, parenting challenges and breastfeeding.
“...Being a mum yeah I think it helps a little bit...” M&T Worker 2
 - Specific, more unusual life experiences such as being morbidly obese, teenage parenthood, domestic violence, and breastfeeding twins.
- CHW service experience (having been a client of the service). This was a feature in the Peer Support and Slimming World services.

“[Because all Slimming World Consultants have been Members] we all know exactly how everybody else feels and we're not perfect Consultants, and not perfect.”

Slimming World Consultant 3

6.1.4.3) ‘Lay’/non-professional status

Many workers in this study described how they were different to existing health and social care professionals as a direct result of being ‘lay’, or not being ‘a professional’.

“We're just lay people”

Peer Supporter 5

In this thesis, the term 'non-professional' will be used in preference to 'lay' for two reasons. First, and as previously discussed, the term 'lay' is ambiguous (see literature review). Second, while many authors and practitioners refer to CHWs as 'lay' workers, all of the workers in this study had knowledge, skills, or experience beyond what would be expected of a 'lay' person, and in some cases this was very specialised knowledge.

It is helpful here to consider what it means to be a professional. In England we have a wide range of professions in health and social care, including doctors, nurses, midwives, pharmacists, and social workers. There are several widely accepted characteristics of a profession; prolonged specialised training in a body of abstract knowledge, service orientation, self-determined educational standards, legally recognised practise, professional overview of licencing and legislation, little control or assessment from the laity. (234) Clearly in these terms CHWs cannot be classed as professionals.

A second use of the word 'professional' is also relevant. While none of the CHWs in the study described themselves as 'a professional', many referred to themselves, or other CHWs as working in a 'professional manner'. The accounts of working in a professional way were couched in terms of personal presentation (looking smart) and behaviour (communication, diligence, following up on commitments). Therefore, where CHWs are referred to as being non-professional, it is important to stress that this is about their status (not a doctor, not a nurse), rather than that they are unprofessional workers who behave inappropriately.

6.1.5) Volunteer or paid

The services explored for this research included both volunteer and paid worker models, though all of the services were exclusively one or the other, rather than a mixture. I have determined that this is a person characteristic, in that 'being a volunteer' is a specific aspect of the individual worker's identity, rather than a simple function of their role. However, I recognise that volunteer status could also be described as a characteristic of the role (other role characteristics are described in the next section of the thesis). For the sake of simplicity, volunteer or paid status is presented as a person characteristic in this thesis, while acknowledging its potential to be a role characteristic. I do not believe it impacts on the subsequent analysis of the concept in relation to the proposed mechanism of CHW client support.

6.2) Role characteristics: CHWs mediate health improvement because of the things they are designed to do

Participants across the services explained how they were able to deliver effective support as a result of the specific characteristics of CHW roles (see Box 8).

Box 8: CHW role characteristics which mediate health improvement

- Continuity
- Settings
 - Geographical location
 - Physical venue
 - Group settings
 - Date and time
- Limited responsibility
- Core tasks
 - Social support
 - Activism
 - Community development
 - Service development
 - Clinical care
- Enacted philosophy: empowerment and client focus
- Time

6.2.1) Continuity

Many of the participants in the study related the importance of continuity of CHW throughout a client's journey, and contrasted it with other services. This was described as

the consistency of the worker who worked with the client, in other words whether the client continued to see the same worker throughout their support relationship.

“She knew I was going every week, I was the only thing that happened regularly in her life.”
POW 7

6.2.2) Settings

Four different meanings of the word ‘setting’ were described:

- ***Geographical location***

Some participants described the importance of where support occurred in terms of proximity to the client’s own home (including visiting the home itself)

- ***Physical venue***

This refers to the building or environment in which CHW support occurs. The venues described in the data included clients’ homes, health clinics, designated spaces in the Children’s Centre, commercial cafés and shops, out on the street, and in local venues such as church halls.

- ***Group settings***

Here the CHW support is supplemented by the support from other clients, for example in a Slimming World group meeting or Breastfeeding Café.

- ***Date and time***

This refers to when support was provided, including time of day, and day of the week.

6.2.3) Limited responsibility

'Limited responsibility' describes the tendency of CHW services to be focused in relatively discrete aspects of client support compared with traditional professionals. For example, a midwife has to take care of the clinical assessment and care of patients and infants, along with health promotion, wellbeing, data collection, child protection and other duties. In contrast a Peer Supporter only supports breastfeeding, and has no conflicting priorities, and does not need such broad expertise.

"I think as well that it is just, they are there just for breastfeeding. Whereas if it's a midwife we're multi-skilled, to deal with lots of different aspects. Whereas the peers, the volunteer peers are specifically there if they've breast fed, they have to have breastfed and be very sort of passionate about breastfeeding to come on the, that's the criteria for the training. So I think that they can really just focus on that."

Peer Supporter Manager 1

Limited responsibility is not a binary characteristic, but rather appears to operate along a spectrum, with some CHWs having broader responsibilities than others. For example, POWs described a range of responsibilities; to 'help' in any way that would make things better for the pregnant woman, including supporting other members of the family, and practical help to address a range of health issues (engagement and communication with health services etc.) and social issues (finances, housing, food and clothing, domestic violence etc.). However, they still reported that their responsibilities were limited compared to professional staff, and saw this as an advantage. Professional duties included clinical procedures (for example blood tests and clinical examination) and statutory duties (i.e. child protection proceedings), for which POWs were not responsible (and were not qualified to undertake).

"I think [midwives have] got a hell of a lot more responsibilities just from a health point of view."

POW 4

The following quote compares POWs with midwives. It should be noted that discussions of limited responsibility were usually intertwined with time and capacity. While the sheer volume of women midwives had to see, and the limited time in which they had to see them, has an impact upon their ability to offer support, there was still a sense from the data that the broader range of responsibilities midwives had were a barrier to effective support.

"A midwife couldn't do all that. That's not her remit, the timescale, the amount of ladies that she's got to see, they've all got problems, she can't do everything so she can't check their heartbeat and their water and their wee and everything because I've actually done all that with a midwife so I know that you can't do all this in a day so we working with them is a good thing, so yeah, we can do that when they can't."

POW 2

In contrast to POWs, Peer Supporters had a more limited role, offering support and advice predominantly to women to support their breastfeeding, with very limited engagement with other aspects of clients' lives, and with other agencies. In turn, M&T Workers' and Slimming World Consultants' responsibilities were more limited than those of POWs.

6.2.4) Core tasks included in the CHW role

Chapter 4 describes the characteristics of the services studied in this research, and outlines a range of activities which workers were reported to undertake, and which they perceived as delivering benefits to clients. The literature review provided a summary of the activities of CHWs, and I concluded that they can largely be described as social support, activism, community development, service development, and clinical care. I posit that the creation

of CHW services with worker roles that encompass specific core (and often unique) tasks is one approach to delivering effective assistance to clients. In other words, in order to deliver social support, activism, community development, service development, or clinical care, CHW roles need to explicitly involve socially supportive, activist, participatory, collaborative or clinical activities, even if those involved in the programme do not identify what they do as a 'social support service', 'community development service' etc.

The services in this research primarily provided accounts of activities which I have determined to be forms of social support as conceptualised by Langford, though this was not always explicitly described as such by participants. In contrast, activism and service development activities were minimally described, and community development and clinical care were not described at all in the four services studied for this work. As a result the analysis presented in subsequent chapters, and the exploration of the 'core tasks' concept in the thesis focuses on social support activities alone, but I provide brief detail on the other CHW activities below:

- Community development and clinical care were not described at all: they were simply not reported to be part of the service designs across the services studied.
- Activism featured in the POWs' accounts of engagement with the media to highlight the needs of their client group, and the Peer Supporters' reports of participation in 'flashmobs' in public places to promote breastfeeding, but this work was reported to be limited and *ad hoc*.

Across the services studied, participants gave accounts of CHWs being commissioned, instructed, or trained to deliver discrete activities which I perceived to fall into one of Langford's four domains of social support. For example, M&T workers were instructed to deliver information about healthy eating to clients (Langford's 'informational' support), and Slimming World Consultants were trained in client problem solving techniques ('appraisal' support). I argue that where these activities are mandated in some way – for example by the service specification or contract - it results in these activities being more likely to occur than if they were not formally explicit in such documents, even if the activities are believed to be an implicit part of the role by some. An example from traditional healthcare is the provision of particular aspects of care to patients with diabetes in primary care. It might be assumed that monitoring such patients' condition is implicitly part of the general practice team's role, but evidence suggests that there was a significant improvement in care following the introduction of specific guidance and commissioning frameworks which clearly set out expected roles and responsibilities.(235)

It must be noted that some of the CHW activities reported by participants were not explicitly described as key elements of the role design; rather they appeared to be working practices that were not mandated, but were nonetheless delivered by many CHWs (for example Peer Supporters sharing their own experiences was frequently described, but not as a mandated part of the role). The 'core tasks' role characteristic relates only to instances where activities were part of the formal role, in that they were described in the context of CHW role design, recruitment, training, commissioning or management.

In addition, some of the tasks that CHWs undertake were not originally part of the service or role design, but were later incorporated into the programme in response to perceived need. This demonstrates how the specific permitted or mandated tasks within a service are not necessarily fixed, and evolve over time. For example, in the early days of the POW Service, workers were not permitted to transport clients in their cars ('instrumental' support). Later this was adopted as part of the role. This is one example of the deepening of social support provision in response to workers' assessment of client need.

6.2.5) Enacted philosophy: empowerment and client focus

CHWs described empowerment, and client-focused support as key elements of their approaches. It is important to note that these were articulated as explicit concepts underpinning the services (or, as I have labelled them, 'philosophies'), rather than activities or tasks: *core tasks* (as described in the previous section) may be a route to 'enact the philosophy', but the concepts/philosophies are the desired 'ends' rather than the 'means'.

Many participants described how empowerment of their clients to make changes was a key part of the role.

"Being there, really just to support the members, for them, to empower them to work it out for themselves."
Slimming World Consultant 2

Sometimes this was an incremental process, with a gradual move from workers taking the lead to increasingly empowered clients undertaking tasks independently. Participants who described this phenomenon related how other services' and workers' central focus (or

philosophy) was focused on specific ends, such as increasing breastfeeding rates, protecting children from harm, improving families' eating, or getting people to lose weight. While these were often part of the CHW programmes' stated objectives, workers often described them alongside an overarching philosophy of empowering the client.

'Client focus' is a related concept, whereby the worker 'enacts her philosophy' of providing holistic support for the client to achieve whatever he or she wishes or needs, rather than focusing on a specified outcome.

"So the POWS are there very much to walk with them and say what would help ... So it can be in all sorts of different ways, but we've all needed different sorts of help at different times in our lives and I think that's why I go back to it. It's completely listening to what's needed and then respond."

POW Manager 1

This was contrasted with the approach of other services, where the focus was described as being problem or outcome-based. For example, Peer Supporters related how a midwife might perceive a breastfeeding problem and provide a solution, rather than exploring the wider context, and thoughts and feelings of her patient, that may reveal that 'the problem' is not breastfeeding at all. While all of the services studied targeted health-related issues (for example healthy eating, breastfeeding), workers and managers across the services studied related the importance of support that looked at the 'whole client' rather than a specific problem, and compared their approach with that of health professionals.

6.2.6) Time

Time, specifically contact time between worker and client, was reported to influence the support process. There were three separate conceptualisations of time within the data:

- Frequency (number of contact events)
“We can, you know, we get a lady, how many ever weeks that she is, would [a midwife] be able to actually go and see that lady every week, you know, without fail?”
POW 6.
- Regularity (how close together contact events occurred) as per quote above.
- Duration (in terms individual sessions and overall support relationship) *“Talking to the ladies at the group, they’re a lot calmer, they’re a lot...they seem to have more information or perhaps more time I think it is, you know, it’s their time whereas they’re not you know waiting to go and see someone else.”*
Peer Supporter 2

In other words, participants attached importance to how many times the worker saw the client, how often, and for how long.

6.3) Summary of CHW characteristics

Participants in this research suggested a considerable number of characteristics which they believed to influence CHWs’ ability to deliver effective support to their clients. This section of the findings has presented these characteristics in an organised, logical form. The person and role characteristics described here lay the foundations for the subsequent discussions of how CHWs deliver support, and why CHW clients engage with it, discussed in the following sections of the thesis.

CHAPTER 7) EXPLORING THE DATA: HOW DO CHWS IMPROVE HEALTH?

Over the following pages, I continue to apply the empirical findings to build the model to explain how health improvement may be brought about by CHWs. The proposed mechanism by which CHWs aim to bring about health improvement centres around social support, the conceptual basis of which was introduced in Chapter 2. I have chosen to explore the social support function of CHW programmes using the framework by Langford et al.(170) The overall model was introduced at the beginning of the findings section, which provided a ‘road map’ for the thesis structure (page 136). I now set out my rationale for the social support mechanism, and the use of Langford’s framework. Figure 9 illustrates the portion of the model relevant to this section.

What is the mechanism through which CHWs aim to deliver health improvement?

As stated earlier, in the selected services, social support appeared to be the key mechanism by which CHWs aimed to deliver health improvement. To further explain why social support is used as an analytical lens in the empirical doctoral work, I revisit the findings from my earlier literature review. Here, I related how social support theory is rarely considered in the CHW context. I became interested in the social support field while exploring the theoretical basis for CHW programmes, which, due to the somewhat atheoretical nature of the CHW research base, necessitated a wide search beyond the CHW literature itself. I found that while many aspects of CHW programmes described in published work *could* be described as forms of social support, they are not so termed by authors. Moreover, social support theory does not appear to be widely recognised as a

useful lens through which to explore and understand CHW activities, although there are some notable exceptions and these have been highlighted in my literature review. Subsequently, when I began to categorise my empirical data, I found that the majority of CHW activities in the services studied could be described as social support, and subcategorised within Langford's four domains of social support (informational, instrumental, emotional and appraisal support), even though these terms were not used by participants. Occasionally interviewees directly used the terms 'social support' (on four occasions, three of which were in the POW service) or 'emotional support' (on five occasions, all in the POW service) but only seven of the participants used such terms at all, four of whom were managers. The terms were applied relatively loosely, and not in the context of social support theory, as illustrated by the quote below:

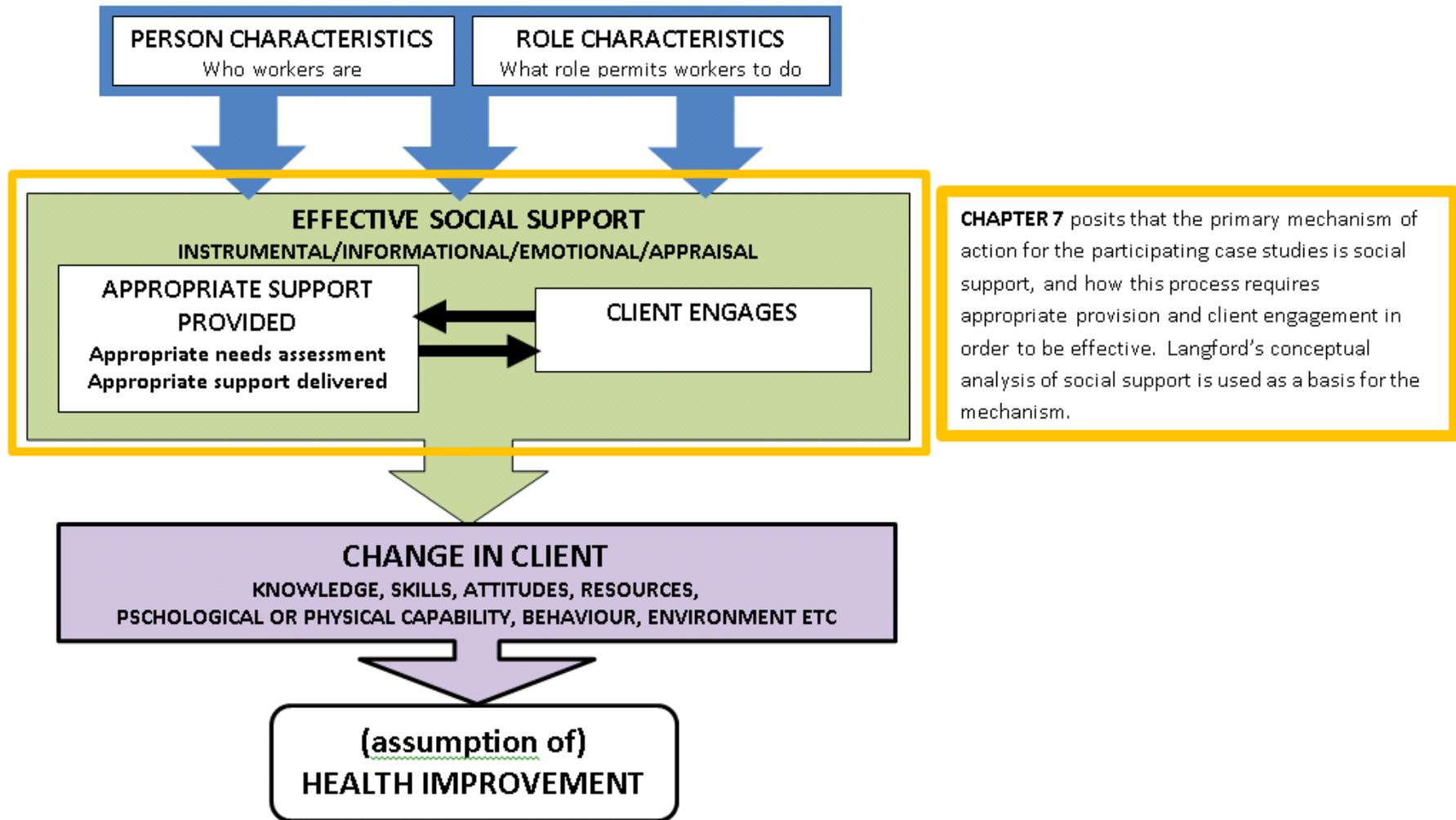
"To emotionally, physically and socially, financially - how can you put that in just one word, because.....because the purpose of them is to support and empower. So the initial start is supporting and then empowering them to then become independent. So using those words, so it would be supporting and empowering and...So it needs to be a statement, but those are the...yeah, as an umbrella I would say that it's all of those, with the financial, the physical, the emotional and the social support rolled into one big football really."

POW Manager 2

I determined that using Langford's conceptual framework to scrutinise the activities and functions of CHW programmes in my data in detail, might offer a way forward in describing and understanding how CHWs improve their clients' wellbeing. The theoretical descriptions of social support in the literature generally overlap, and Langford attempted to synthesise them for use in a healthcare context. The fact that Langford's framework is based on a conceptual analysis of the social support literature, and that it was done with health care in mind, led me to select it in favour of other theoretical descriptions available. During the course of the doctoral study others have published work using Langford's framework(236)

(though in a largely descriptive, rather than analytical way), which further reassured me that this model was appropriate to apply to the data. Table 10 provides examples from the services studied of how activities described by participants can be attributed to Langford's four domains.

Figure 9: The CHW mechanism, chapter 7



	Social support category			
Service	Instrumental	Informational	Emotional	Appraisal
POWs	Transporting clients in car	Providing benefits advice	Listening to clients' problems	Reflecting on clients' achievements
M&T workers	Providing ingredients	Providing information on sugar content of common food	Giving praise	Sharing stories of workers' cookery mistakes
Peer Supporters	Providing a 'safe', comfortable place to feed in public	Providing information about what breastfeeding is really like	Expressing sympathy to distressed clients	Encouraging clients to describe and reflect on their situation
Slimming World Consultants	Providing a weekly 'weigh in' service	Providing dietary advice	Text message support to check wellbeing and encourage	Encouraging other members to share their stories

Table 10: Examples of social support activities from across the services studied

While this thesis attempts to unpick the mechanism of health improvement CHWs aim to deliver, in truth it can only explain part of the process. While 'health improvement' may be the ultimate goal of services, often the outcomes reported in the data in this study are better described as interim, or process outcomes. For example, services were providing functions that may deliver changes in client knowledge, resources, attitudes, service access, mood, and so on, with subsequent impact on health being implicit. Similarly, the example outcomes above may stimulate a further change in client behaviour, with an assumed impact on health (for example improved nutrition knowledge changes shopping habits, which improves diet, which improves health). For the purpose of the thesis, I have used the broad term 'health improvement', but it is important to highlight that the social support

processes I will describe effect changes which may or may not subsequently deliver health improvement, and this is not tested in this work: for the purpose of this study, health improvement is assumed to follow from other positive changes in the client. This process is broadly represented in the diagram below. I will repeat and add to this diagram over the following pages to expand and describe my proposed mechanism of social support.

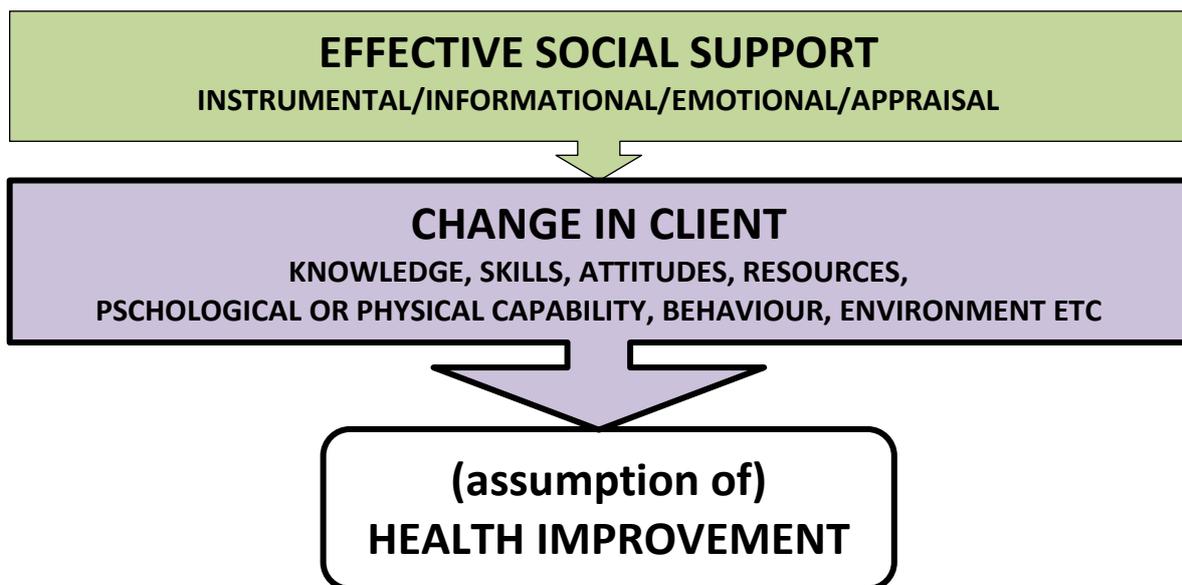


Figure 10 – Social support mechanism 1

Thus and so far I have proposed that social support is central to the mechanism/s by which CHWs aim to bring health gain to clients. I now argue that for this social support to be effective, two essential conditions are necessary.

Participants' accounts of *why* CHWs were able to deliver an impact appeared to fall into two discrete categories: first, CHWs were providing support activities that were 'right' for the client, and second, clients were willing to work with the CHW. Often this was contrasted with traditional professionals who reportedly did not always provide the 'right'

support, or with whom clients were unwilling to engage. In other words, the data suggested that the 'fundamental conditions' for social support to be effective were:

- ***The worker must provide appropriate support***

For example a M&T Worker must assess clients' needs and determine which ingredients that are accessible and affordable to clients, in order that they can go on to prepare them at home. The worker must then provide these same ingredients in the session.

- ***The client must engage with the support***

For example a woman must listen to and act upon the advice of a Peer Supporter in order that it can impact on her breastfeeding difficulties

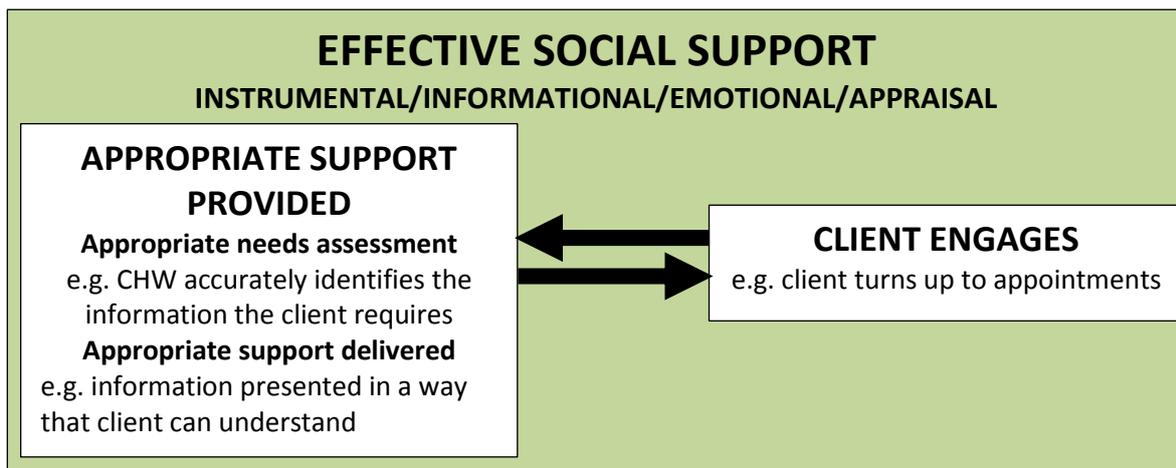


Figure 11 – Social support mechanism 2

The two conditions (appropriate support and client engagement) are interrelated:

- The appropriateness of the support provided was described as improving client engagement, for example where a POW helped a client to secure carpet for her home, meeting her needs appropriately, the client was motivated to engage with further support.

- Client engagement was reported to improve the worker's understanding of the client, meaning that they could provide more appropriate support, for example a client who trusts their POW may disclose that they are in a violent relationship, improving the worker's understanding, and resulting in the worker explaining the client's options to resolve the situation.

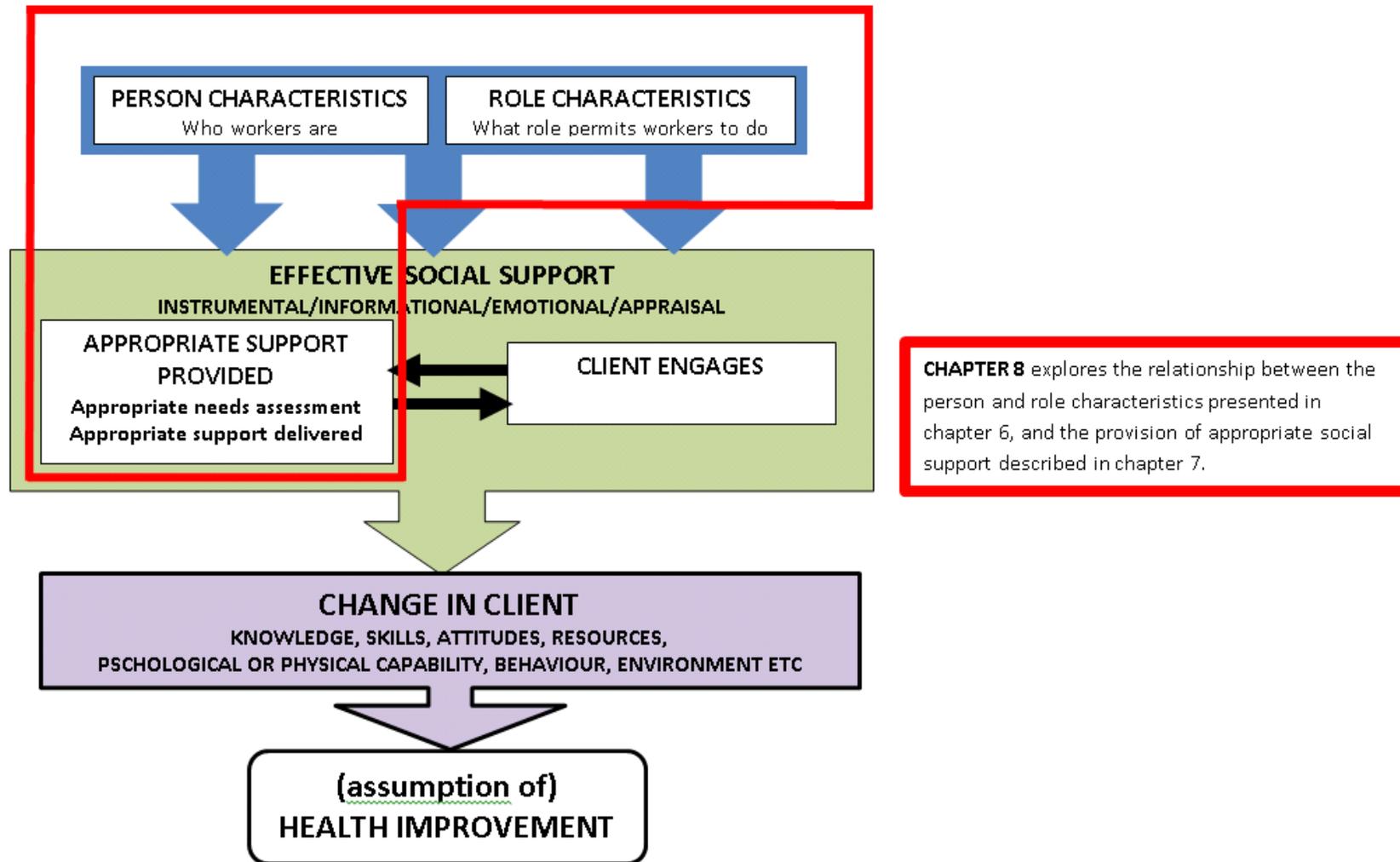
CHAPTER 8) DETERMINANTS OF THE PROVISION OF APPROPRIATE SOCIAL SUPPORT

In this chapter, I will explore the first proposed condition required for effective social support – the appropriateness of CHW support - and how person and role characteristics influence this process (illustrated in Figure 12). Regardless of whether the support required by the client is instrumental, informational, emotional or appraisal, I argue that the provision of appropriate social support requires the worker to do two things:

- Needs assessment (identify what the client needs, and what it is possible to do)
- Delivery of support (provide what is needed in an appropriate way)

The data in this study suggested that the characteristics of the CHWs (person characteristics), and the way in which CHW roles are designed, both contributed to workers' ability to identify and provide support. This chapter will now explore these interactions in more detail.

Figure 12: The CHW mechanism, chapter 8



8.1) Social support step 1: needs assessment

Identification of client needs requires an understanding of the client's situation, and of the things that can be done to help. Person and role characteristics were both associated with workers' ability to assess need.

8.1.1) Person characteristics and needs assessment

Knowledge and Skills

Knowledge was associated with improved understanding of clients by CHWs. For example, the M&T Workers had detailed knowledge of their target population demographics and life experiences (*population knowledge*). They knew that their clients were on a low income, and often had very limited access to equipment and facilities, with some only having access to a microwave, with no freezer or cooker. Therefore, the clients needed support that did not require them to buy expensive ingredients, or to use equipment they did not have.

CHWs also described how *specialist knowledge* helped them to understand their clients' needs. Breastfeeding Peer Supporters had detailed knowledge about the behaviour of a breastfeeding infant. When a distressed client erroneously perceived that her baby was feeding too frequently, the Peer Supporter knew that the client was misinformed about the realities of breastfeeding, and that some information about normal feeding frequency might be needed.

Service knowledge was also linked to understanding. A POW with knowledge of the local social housing system was able to see that a client's house would be eligible for council-funded repairs, identifying a need for additional service provision.

Workers' skills also played a part in their assessment of client needs. Their general *communication skills* meant that they could identify where a client required further input. For example, good listening skills were reported to improve the quality of information that Breastfeeding Peer Supporters gathered, enabling them to better understand what it was the client required.

Specific skills also had a bearing on needs assessment. For example, a M&T Worker described how her cookery skills enabled her to see where a client needed advice, as she could see that the way in which she was preparing her recipe might lead to problems.

Personal Qualities

Personal qualities were cited as influencing the information-gathering and needs assessment process. The following example illustrates how a POW's ability to *empathise* with a client led her to interpret her needs differently; she did not perceive stopping smoking to be a priority in light of the client's wider situation. This POW also talks about how empathy is linked to being *non-judgmental*, and how this influences her assessment of what clients need, inferring that others might suggest that the client in question should be aiming to stop smoking.

“Knowing that, you know, other things that people think, you know it’s dreadful that a pregnant woman smokes, yeah you know, it’s not ideal, we all know smoking is bad for you, they know that smoking is bad for you, but actually you know, in the scheme of things, when your life’s in chaos, the last thing that you are going to be concerned about is stop smoking, you know, and it’s just to have that understanding of where people are in their lives and not judging people for choosing a certain lifestyle I think.”

POW 7

Sometimes workers’ *values* were suggested to have a negative impact on needs assessment. For example, in the Peer Support Service, a minority of workers who were particularly pro-breastfeeding were reported by other Peer Supporters to be less likely to explore all of a woman’s options with her (i.e. with the inclusion of stopping breastfeeding). This suggests that the worker assessed women as needing support to help them to continue breastfeeding, as opposed to needing support to make an autonomous decision about how to proceed. This could be interpreted as paternalistic needs assessment that may result in coercive support. However the CHW accounts in this research do not provide sufficient data to elaborate on the determinants of, or the extent of this phenomenon, or the impact that such value-driven needs assessment has on clients.

Client-Worker Similarity

Similarity between worker and client impacted on the needs assessment process in a number of ways. Interviewees described how sharing locality of residence with clients might give them a better knowledge of local services that clients could use; for example, Peer Supporters related how they discussed local children’s services with clients, and recommended them. Peer Supporters also related how the knowledge acquired as a breastfeeding mother meant that they anticipated a need for information by clients which might not be disclosed to professionals; for example:

"I don't think in the antenatal class with the midwife you'd be talking about things like where do you go to feed in public? You might talk about well, you've got the right to feed in public but in terms of actually yeah well I used to sit in a corner and just get on with it and I used to wear tops that did this and that's quite nice. The midwife just wouldn't talk like that because unless she's just done it and is in a similar situation, it's just not the sort of thing you talk about really."

Peer Supporter 4

In the following quote a POW describes how, if she was from a different ethnic background to her clients she would have a relative lack of knowledge, and she would find it harder to understand the issues (or assess the needs) of clients. It is important to note that this is not absolute, however, and she feels she could learn and provide support, though it might not be as effective. This example also suggests that similarity facilitates the personal quality of empathy, in that this non-matched worker feels she *"Can't relate to that."*

"I know them [areas] like the back of my hand, and it's just great to be working in that community, it's brilliant, so I'm quite excited about that and I can relate to it.. If I went to work in a, say if I went to work in a very, somewhere like [another area], I could do it, it wouldn't be a problem, but because it's predominantly Asian families and we get a lot of people new into the country and extended family issues, I can't relate to that. I can learn and I can try and understand it, but it's not natural to me, so it's, I don't think I'd be as effective, because I can't...I think for me as a person, I prefer...to work somewhere where I can get it."

POW 6

Volunteer or Paid status

Volunteer status was not reported to impact on the needs assessment performed by CHWs in this study.

8.1.2) Role characteristics and needs assessment

Continuity of worker was reported to provide a better opportunity to build a picture of their clients over time, without the need to start afresh with each client interaction. Where

workers had to cover others' work, it was reported that this was more challenging, due to the worker having no previous knowledge of, or relationship with the clients.

The *setting* where support was provided was also described as impacting on the quality of needs assessment. Particularly, when the *venue* for support was the client's own home, as in the POW Service, seeing the environment was described as providing more information about the client's situation.

"Meeting people in a community venue is one thing; that makes us different, perhaps that's where we, that's why the relationship with us is different, because we do go into people's houses and you see...a very different person, because you see, you get a bigger picture, which not; if people are going to visit people in Children's Centres or at GP surgeries you don't see that other side of somebody, you don't see them in their own environment and that makes a difference because you build up a bigger picture."

POW 6

Where the *venue* involved co-location with other workers and services, such as in a Children's Centre, it was reported that it assisted workers in building relationships with other stakeholders, and in understanding what was available for their clients, in other words, assessing their needs in the context of locally available services. It was also suggested that clients were more likely to 'open up' and provide information that would help the worker understand the client needs, where venues or co-located services lent credibility and trust to the CHWs .

The *core tasks* and *enacted philosophy* that CHW services were reportedly designed to undertake also appeared to influence the effectiveness of needs assessment. An *empowerment and client-focused* approach put the clients' needs at the centre of the support. In the Peer Support, POW and Slimming World services, this approach to support required CHWs to undertake the specific task of exploring what the client felt she needed,

what she wished to achieve, and any perceived barriers. The following quote illustrates how a Peer Supporter described taking a client-focused approach, to discover, and avoid making assumptions about what women wanted, including whether they wanted to breast feed in the first place.

“And sometimes it might not even be really talking; it's just listening. It's just about, I think, assessing that mum and finding out ultimately what she wants to get out from that situation. So she comes and she says, 'X, Y, Z,' and you'll say, 'Well, what do you want to achieve?' Because some mums will come in and have certain situations and you're not even quite sure that they want to breast...it's almost like they want to get outdoors. And that's fine, if you choose not to breastfeed your baby, nobody's going to...we're not the Breastapo, as they like to label us. We're not going to make you breastfeed a baby if you don't want to, because if you don't want to do it, it's never going to work anyway.”

Peer Supporter 5

Some of the core tasks that CHWs described, which were explicit in the service design (and which I have determined as constituting *social support*) meant that workers are often deliberately recruited with, or trained in the characteristics required to assess clients' needs appropriately. This was contrasted with the perceived lived experience and training received by healthcare professionals. For example, the POWs were trained to provide the knowledge about the welfare system, which enabled workers to establish whether clients were entitled to more than they were receiving; and the Peer Supporters receive specific training in listening and information-gathering.

Time was also associated with the quality of the needs assessment by workers, and is related to the limited responsibility and relative lack of conflicting priorities that CHWs had to balance. In terms of the duration of an individual support session and the number of clients professionals had to support, there was a suggestion that some professionals did not have sufficient time to assess clients, and therefore to understand and support them.

“They always just seem to be overworked, and not being able to, you know, sit down and spend more time with them and realise that there’s more to them than being pregnant.”

POW 6

Time was also important in terms of the duration of a support relationship. Workers described how working with the same client over a long period of time meant that they learned and remembered a great deal about the client’s needs. Below, a Slimming World Consultant describes how she gets to know Members over time, and how she understands when they need specific support to stick to their eating plan.

IV: “That’s what we do as well as support, is sometimes just a text at a certain day that you know that person is more likely to struggle. And their weekend’s come, or I know it’s their takeaway night. And it’s just like little nudge, just to say ‘Hi, I’m here, don’t forget].”

I: “Wow. And you manage to keep all that in your head, of who’s what, when?”

IV: “Well we can store so much on the system, we can make notes as we’re going round. But yes, I mean you have got a good idea, because don’t forget, some are with you quite a long time, so we do find out quite a lot about them. And it is really, when you’re looking at friends really, I suppose they do. But not a friend as such, but you get to know them like a friend and you get to know all those things about them. And that’s stored, you don’t have to keep reminding yourself about your friends do you?”

Slimming World Consultant 2

Some, particularly in the POW service, related how repeated, regular contacts over a period of time can lead to clients revealing information about themselves that impacts upon worker understanding of their needs. The importance of client engagement with the worker and service will be discussed in depth later.

8.2) Social support step 2: delivery of support

Once a client's needs have been established, the worker must then meet them. This section outlines the impact of person and role characteristics on the quality of the support provided to meet client needs. The data from the services studied suggested that the influence of person and role characteristics varies depending on the domain of social support required. For this reason, the presentation of the findings takes account of this, and this section will take each domain of social support separately, and consider how the person and role characteristics influence the delivery of appropriate support.

8.2.1) Instrumental support

8.2.1.1) Person characteristics and instrumental support

Knowledge and Skills

CHWs were reported to have *knowledge* that assisted them in providing instrumental support to clients, though beyond the needs assessment stage only *service knowledge* was important. For example, the POWs had detailed knowledge of local statutory and third sector organisations that could provide food, clothing and baby equipment to vulnerable people. As a result they were able to navigate the system on behalf of clients, and source what they required, providing what the literature refers to as 'bridging support' or 'system navigation' between services and the women they served. As I argued in the Literature Review (Section B3.3.1.1), these activities fall within Langford's banner of 'instrumental support'

Skills also had a role in delivering instrumental support. For example, POWs were able to use their *communication skills* to engage with other services on their clients' behalf, again providing what the literature refers to as 'bridging support'

'*Community*' *language skills* also delivered instrumental support in the form of translation services.

Personal Qualities

Empathy and compassion was described as necessary to motivate workers to undertake certain tasks, as evidenced by the following account from a POW.

"It matters to a degree where you come from, how much of yourself you can give of a thing like this but I think at the same time it's down to the individual, is that part of your psyche, your makeup, whatever it is? Do you care enough to care about somebody who ain't got enough money to go and ring up the Social Services? Firstly can you empathise why somebody is in that situation in the first place? If you can't get with it all, you know what I mean?"

POW 2

Workers' *values* were also described as having an influence in the POW Service, with some workers holding attitudes that favoured less hand-holding of clients, while others believed it was an appropriate form of support.

There were also examples where worker *persistence* was seen to deliver better results in instrumental support. Here, a POW manager is describing how a worker persisted in trying to secure housing for a vulnerable client, including getting other professionals involved when initial attempts were unsuccessful.

"That POW is working really hard with this girl throughout the pregnancy, she's not got long left, the girl's still homeless, still has nowhere to live, but if it was left to her she'd just quite happily sit there and let the housing keep fobbing her off and saying another week, another week. And we haven't done your banding, we haven't worked out your medical points and it's only because the POW has really jumped onto it and got in touch with like other health

professionals for letters and things, otherwise it would never have got done. “
POW Manager 2

Client-Worker Similarity

There were several examples where *client-worker similarity* enabled instrumental support, acting as a bridge between clients and other services, or providing a service in itself (for example interpreting). First concerned shared religion, where a Muslim POW referred her client to the mosque to deal with a family issue. The second example was also in the POW Service where workers were from the same ethnic background as the client (usually South Asian), and could speak their language, they were able to provide interpreting services to the client. Strictly speaking, this was more about the worker's language skills, rather than shared ethnicity. It is completely possible (if unlikely) that workers could acquire skills in languages from communities to which they do not belong. Similarly, not all members of an ethnic group will speak the relevant language.

A final example of the instrumental domain of social support concerns another kind of 'translation' service, where a non-professional worker can act as a bridge between professional services and a client. Here, a professional is described as using language that a client cannot understand. The POW does not explicitly say that her non-professional status is the reason behind her ability to translate between the client and professional, and the data cannot confirm or refute this position. However, it can be hypothesised that the worker is able to perform this function as she is not a professional herself, and has more insight into the level of understanding of ordinary people.

I explained who I was, and the lady that was doing the assessment, she was quite gracious that I was there to be able, at times, to talk to my client instead of telling her, you know, telling the professional what the problem was. It was, I was support for my client, because sometimes she [the client], you know, she'd look at me, and I know she would start being, you know, nervous because she wouldn't understand the question. So I'd have to sometimes, like, simplify things, and then say to the professional, 'You'll need to break that down for her to understand,' because it wasn't my role to, you know, explain, because it comes from the client, what way they're feeling. I couldn't answer for them, but, you know, I was there as actual support, which she needed." POW 6

Client worker similarity, namely non-professional status, was also described as a disadvantage. Workers in the POW Service described difficulty in engaging with other professionals, as they were not credible, trusted professionals themselves. This was a barrier to acting as a bridge between clients and professionals.

Volunteer or Paid

Instrumental support was not described as being affected by the *volunteer or paid* status of workers. However, this may be due to the fact that the only volunteers studied here were Peer Supporters, who provided little in the way of instrumental support. It is possible that the issues faced due to similarity, described above, would be magnified for volunteer workers, as it may further reduce their status and credibility with other agencies and professionals.

8.2.1.2) Role characteristics and instrumental support

Continuity of worker was reported to put CHWs in a position to deliver bridging support, acting as the link between all of the services on behalf of a client.

"I don't know what would have happened to her if there was, not me, but if there wasn't a support worker there, and because there was so many people involved with her, it ended up

that, it happened to be me, but whichever POW it would have been, ended up coordinating the support...and being the one link I suppose to her with everybody else."

POW 7

In terms of *settings*, the *physical venue* was associated with the ability to provide instrumental support. The M&T Service conducted its activities in venues with rudimentary cooking facilities, which enabled clients to prepare recipes. However the venues used by CHW services were also reported to impact upon the client's social environment. In the M&T and Peer Support services, both services provided accounts of parents using the service as somewhere to go, or an alternative venue to meet friends outside of their own homes, or to provide toys and stimulation for their children (in a crèche or in the breastfeeding café). Some workers related how it was important that the venue was pleasant, clean and relaxing, perhaps suggesting that in addition to providing somewhere to go, services might also be providing somewhere nice to go. The availability of Children's Centre crèche facilities in the M&T Service was described as essential in providing them with the time free of childcare responsibilities, that they could engage with services.

In the POW service, participants described how the flexibility of physical venue in which they operated meant that workers were able to undertake extended tasks. For example, workers could take clients to charitable organisations to source baby equipment, providing instrumental support that traditional professionals could not give. They could also attend health and social care settings to provide bridging support for clients.

Limited responsibility was thought to permit better instrumental support by some of the POWs, in that they had fewer conflicting priorities, meaning that they could devote capacity to providing the assistance required.

There were accounts of how *core tasks* included in CHW roles enabled workers to provide instrumental support. For example, sourcing and providing ingredients and equipment for clients were a key part of the M&T worker role, which meant that clients could attempt recipes where they otherwise may not have had the time, skills or resources to do obtain the tools to do so.

The *enacted philosophy* of CHW services were reported to impact on the ability to deliver instrumental support, in particular the highly client focused approach of the POW Service. POWs related how they were permitted to work flexibly to address *any* needs which the client felt to be important (within reason and with the consent of managers), even if it might not immediately appear to be related to health or pregnancy. For example, POWs described providing pet food, or taking a client out to a café. Of course, *time* is also a factor here and some of the more unusual tasks that POWs undertook were in part a factor of time, permitting them to take on some aspects of social support that were not in the gift of professionals.

8.2.2) Informational support

8.2.2.1) Person characteristics and informational support

Knowledge and Skills

Many accounts were given where CHWs were able to provide suitable information to their clients as a result of their existing *knowledge*. Useful *population knowledge* included the demographic (for example information was provided verbally to a young client as they were known to prefer it in this way), experiential (for example it was possible to give advice that breastfeeding women should expect some discomfort at first), and 'lay' (for example the worker reduces jargon and unnecessary information, because as a non-professional person she knows that this is what ordinary people want). *Specialist knowledge* was also reported to impact on informational support, such as where M&T Workers were able to advise clients about healthy levels of salt, sugar and fat in the diet. *Service knowledge* allowed workers to provide signposting information that would help clients to access other agencies, such as where POWs provided telephone numbers for Housing Services and instructed clients in how to navigate the system (rather than doing it for them).

Skills were also relevant to informational support quality. *Communication skills* enabled workers to provide information and advice in a way that was comprehensible.

"It's about us giving them the facts, the bare facts, the professional facts, but in their lingo and not giving it to them saying it in all these massive words in a sentence that they just sit there, mouth open, aye, what does that mean?"
POW Manager 2

'Community' language skills meant that clients could receive information in a language they could understand. *Specific skills*, such as cooking or breastfeeding, enabled workers to demonstrate an activity, providing visual information from which clients could learn.

Personal Qualities

There were relatively few instances where *personal qualities* were reported to impact on informational support provision. *Empathy* was viewed as important, but only in that it enabled effective needs assessment as discussed earlier, which in turn informed the advice given. Worker values were described as impacting on advice, in the sense that certain information might be withheld where it did not fit with the CHW's own attitudes. This was only mentioned in the Peer Support context, where pro-breastfeeding workers were perceived as giving advice that was orientated around keeping women breastfeeding, rather than addressing all of her options. Where workers are *non-judgmental*, it was also reported to have an impact on the kind of advice or support the worker delivered, in that advice did not pass judgement on the client for choosing a particular path. In the previous quote on page 176, a POW relates how she doesn't judge a client for smoking, or tell her to stop, and instead understands that she might have other priorities.

Worker-Client Similarity

Worker-client similarity was frequently reported to be associated with the provision of appropriate informational support. Similarity impacted on the quality of information delivered by conferring certain knowledge, skills or personal qualities on the worker, enabling them to assess needs and deliver information with more appropriate content. This is illustrated by the earlier example on page 177 where a Peer Supporter anticipates a need,

has relevant knowledge, and is able to include a discussion of breastfeeding in public because she has been through the experience herself. Shared characteristics were also reported to result in a more appropriate delivery method, for example, workers from the same ethnic background as their clients often spoke the same language, so could provide information that was easily understood. Similarity to the client also permits the worker herself to be a form of information, in that she can demonstrate skills, talk about her own experiences, share resources, and provide information that is highly relevant to clients. For example, a Peer Supporter, by virtue of the fact she has breastfeeding experience, can relate how she found the first weeks of breastfeeding difficult, but that it was possible to overcome those difficulties, and she provides first-hand evidence of this. This provides the client with information to the effect that it is normal for breastfeeding to be challenging at first, and that it does get better. Of course, this kind of support requires that the worker discloses their own experiences, and this was not always the case. For example, while a number of POWs had personal experience of poverty or domestic violence, participants in the research stated that they never shared such detail with clients as the provider organisation had a policy of not sharing personal information for the protection of workers, plus they did not wish to, or did not see it as part of their role. In the POW service there was a sense that potentially stigmatising experiences were not disclosed, while other 'stories' pertaining to general parenting and pregnancy experiences were shared with clients.

Paid or Volunteer

Paid or volunteer status of CHWs was not associated with any impact on informational support according to the workers in this study.

8.2.2.2) Role characteristics and informational support

As with person characteristics, there are many examples of ways in which role characteristics improve needs assessment, which in itself intuitively provides better informational support, as information needs have been more accurately evaluated. There are, however, other ways in which role characteristics were reported to improve informational support directly.

Continuity was described as delivering consistent advice without contradiction, and was compared with other services where a lack of continuity resulted in conflicting advice, which was reported to leave clients confused. However, in the Peer Support Service it was suggested that conflicting advice was perhaps unavoidable due to the range of different people involved with a client (midwives, health visitors, friends and family, plus Peer Supporters), and the many possible solutions to client problems. Peer Supporters perceived that providing continuity enabled the worker to understand what problems and advice had gone before, and avoid confusing the client by contradicting it.

The *setting* was a potential influence on informational support in terms of the *venue* where the service was delivered. In this sense, providing support at a particular venue such as a Children's Centre may introduce a client to the setting, where she may never have visited otherwise, either due to a lack of awareness of its existence, or because she did not perceive it as offering something of interest. The opportunity to see the venue could be described as a form of informational support that could facilitate future engagement with other services. In addition, venues might have particular facilities that allow informational support. The cooking facilities provided in Children's Centres meant that workers could demonstrate

certain tasks, in effect providing information by showing clients how to use an oven or microwave.

Group settings were described as providing additional informational support via other group members. Particularly in the Peer Support and Slimming World contexts, group members were reported to have valuable information to contribute to supporting other clients with CHWs facilitated the sharing of information between clients.

The *core tasks* that CHWs were trained or instructed to deliver often involved informational support, for example the M&T session programme involved delivering information on food and health, Peer Supporters were given training in breastfeeding facts so that they could inform clients, Slimming World Consultants informed clients about the foods that were 'syn' or 'syn free', and POWs were trained to give information about local services that could support women.

The *enacted philosophy* of CHWs also had a part to play in giving informational support. The *empowerment and client-focus* was reported to result in workers providing information as a range of options, as opposed to telling a client what to do. There was a sense from the data that the content of information provided by CHWs was richer than that provided by professionals, and encompassed a number of perspectives, rather than a 'right' way that clients should take based on a 'problem' that needed to be addressed.

It was suggested that the *limited responsibility* of CHW roles might impact on the content of informational support, in that workers could focus in more depth on specific issues, and

have a greater knowledge base. For example, Peer Supporters were thought to have better knowledge about breastfeeding compared with other professionals. While some of this was attributed to experience as breastfeeding women, workers also described learning about and researching breastfeeding as part of their job, and acquiring knowledge that could then be imparted to clients.

Time has clear implications for the giving of informational support. Different clients may have different information needs. Some might require considerable input in explaining and checking before it is clear that the information has been understood. Professionals were described as often not having the time to devote to this.

“It depends what sort of advice you’re giving, because midwives haven’t got time to give a lot of advice, because they’re too busy with the clients, aren’t they, and they’re dealing with what they’ve got to deal with, and they’re already over worked, but I think we’ve got the time to discuss more things that they want to know.” POW 1

8.2.3) Emotional support

Emotional support has already been described in the literature review (page 66). In brief, it encompasses the communication of esteem, care, empathy, trust, respect, acceptance, liking and love. It can foster a sense of belonging, and provide companionship to the recipient. It includes appreciation, encouragement and reassurance to improve self-esteem.

8.2.3.1) Person characteristics and emotional support

Knowledge and Skills

In the following quote one of the POW managers describes how knowledge (or lack of knowledge) about the lived experience of domestic violence impacts on the emotional support messages.

“It’s easy if you haven’t been there to say, ‘Well, leave him, leave him if he’s beating you,’ and actually, if you know what that’s like, it’s your – first of all he’s sorry afterwards, and he makes you feel good and no-one else does, you’ve got your kids and their house and their bedrooms and the things that they hold dear and all of those things mean that you don’t walk away.”
POW manager 1

Emotional support theory fits with the notion that knowledge of the client is required in order to deliver this kind of help. The following discussion draws on research in the field of interpersonal communication. In particular it applies the empirical and review work of Brant Burleson and colleagues. (173, 237) Burleson et al explore emotional support and emotionally supportive communication, and they have outlined how individuals delivering emotional support require ‘competence factors’, which they define as aspects of *knowledge and skills*. They also relate how emotional support’s effectiveness is associated with the degree of ‘person-centeredness’ of support given. Burleson describes person-centeredness as *“The extent to which messages explicitly acknowledge, elaborate, legitimize, and contextualise the distressed other’s feelings and perspective.”* Clearly, *knowledge* about these ‘feelings and perspectives’ is required in order to ‘acknowledge, elaborate, legitimise and contextualise’ them.

Routes to, and importance of knowledge in emotional support

Some of the knowledge required to deliver emotional support will be acquired during worker-client interactions (and dependent on the worker seeking it), but participants also described knowledge that was acquired elsewhere. This pre-existing knowledge could be naturally acquired on account of some degree of similarity, or gained through training or experience. The data was inconclusive as regards the importance of how knowledge needs to be acquired for appropriate emotional support. There were participants who felt that direct experience (demographic, experiential or 'lay') was advantageous, but workers also described how they acquired it through training, work experience, or learning from colleagues or friends who had similar experiences. It was also suggested that personal qualities such as empathy and compassion might make up for deficiencies in pre-existing knowledge, possibly because such workers are better able to understand a situation without learning about or experiencing it before (personal qualities are discussed shortly). Even within cases there was conflict. The following two accounts are from the same worker, who first suggests that shared experience is necessary to have knowledge of how a client feels, but later states that it is still possible to understand clients if one has the right character, or "heart," suggesting that personal qualities being empathic and compassionate may compensate for a lack of similarity.

"I think you have to have a certain...okay if you're upper class, middle class, you've always known what you're going to eat tonight, you've never had a problem, you've never experienced the fact that you haven't got enough money to last you until tomorrow, you don't know anybody on benefits, you know. If you're okay in life you can't do this job, I don't think you can do this job because it's probably harder to empathise with people when you've never experience personally or know somebody who's been through certain things."

POW 2

- I: *"Along the same lines could someone who's never been short of money or on benefits or had a social need, could they ever have the empathy to understand what it's like to have social needs?"*
- IV: *"It depends on the character of the person."*
- I: *"...would they work differently with a client than somebody who'd actually lived it and been there?"*
- IV: *"I think it all depends on the person's heart. I know that really sounds like..."*
- I: *"No, not at all."*
- IV: *"I really think it all depends on the person's heart in terms of how they care about people. Are you the kind of person that when you see somebody come in you want to go and help or do you walk on by or do you assist? If you're that kind of person then yes, I think they can but I think you have to have that kind of heart to care."*

POW 2

These observations tally with Burleson's review of existing literature, and original empirical studies in the field of emotional support psychology and communication,(173, 238) in which he found that while shared demographic characteristics were associated with improved recipient-rated emotional support quality, they usually explained only 1-3% of the variation in the recipient's evaluation of support. In contrast, his work found that the support recipient's psychological (personality and cognitive) characteristics (for example values), accounted for more variability in emotional support recipients' perspectives on the value and appropriateness of support.

Burleson also guarded against making assumptions about the emotional support needs of particular groups, whether demographic or otherwise. He stressed that it was paramount to focus on the individual, rather than any group to which they belong, and how basing our knowledge on research that explores how most people respond to support does not encompass all population needs (in other words, taking these broad trends at face value risks committing the ecological fallacy, as described earlier on page 48). The following quote

from this study illustrates the same theme, in that the client has less of a natural emotional support network than might be expected of a young Asian woman. In this sense the worker's knowledge is more sophisticated; she knows that her client's needs cannot be pigeonholed according to her demographic characteristics.

"And at round about the same time, I had a young Asian girl to work with...but she didn't have any family, she didn't have any friends, so she didn't have that reliance. So, even though I was used to working with the Asian population, this girl was totally different to me, because I will be going to see her, a one-on-one, and she had a multitude of problems. So, you know, everybody's different at the end of the day, regardless of, you know, what your colour is,, or if you can speak English or not, you know, it does boil down to that."

POW 6

Regardless of whether CHWs had the knowledge that underpins good emotional support, they also had to have the *skills* to deliver it. Burleson states the importance of "*knowing what to say (and what not to say)*" when giving emotional support. So while a worker might understand a client's situation, she might still not know how to respond. Indeed, there is empirical evidence to show that individuals do not necessarily display appropriate emotional support skills even after they have been trained in the subject.(237, 238) In this study, participants across the services described a need for good *communication skills*, and provided some examples of how this might facilitate emotional support.

Burleson describes a range of emotionally supportive communication methods that are of low, moderate and high person centredness (LPC, MPC and HPC), with HPC support being the most positively valued by recipients. It is useful to use these as a lens through which to view the participants' accounts of relevant communication skills. LPC approaches are characterised by Burleson as denying, criticising and/or challenging an individual's feelings, or dictating how they should feel and behave. In this study traditional professionals were

often reported to tell clients what to do, or to behave in a way that did not acknowledge the difficulties clients faced. There was a sense that CHWs avoided behaving in this way, and perceived it as unhelpful.

IV: *“If you...you’re not sort of telling them what to do, it’s sort of more of they’re approaching you with a problem rather than you going and saying well I think you should do this and I think...if you give them their options then they could try this, if it don’t work try this, yeah.”*

I: *“And what does that do for the mum, having that range of?”*

IV: *“It makes them feel...I don’t know, it made me feel as if I weren’t being told what to do, I’m not someone that likes to be told what to do...You know we’re not gonna hold the baby to their chest and say this, you will do it if you know.”*

Peer Supporter 1

MPC approaches, according to Burleson, recognise the feelings of the individual, and attempt to distract attention from the difficulty faced, offer sympathy, or to provide explanations for the situation (though using facts, rather than feelings). This kind of approach was only reported once in the data, by a POW:

“You try and help them as best you can and try to explain to them and empathise with them that I understand that yes you’ve come to this country to get a qualification, you’ve spent all this money, unfortunately you got pregnant during the wrong time but here college starts in September but apply from July, August time, your baby’s due in March so you can’t do nothing this semester, it’s got to be that semester, your visa ends in April, there’s not much I can do, I can’t change the situation, you know what I mean, but she became desperate. It’s sad but I’m like my remit really is the pregnancy and how that’s going for you, helping with breastfeeding, pre-birth classes, them kind of things but obviously yes, I’ve got to help you with your issue but I’m trying to detract from the issue because there’s not much we can do there. So you want to concentrate on this part, I want to concentrate on that part because there’s not much I can do but for my support I can make sure you go into antenatal, I can make sure you’re eating healthily.”

POW 2

Burleson relates how HPC *“explicitly recognise[s] and legitimise[s] the other’s feelings, help[s] the other to articulate those feelings, elaborate[s] reasons why those feelings might*

be felt, and assist[s] the other to see how those feelings fit in a broader context.”(173) Peer Supporters and POWs gave the most coherent accounts of this kind of support, with clients actively asked how they felt about their situation. However, participants in the Slimming World and POW services also described acknowledging and contextualising clients’ feelings in addition to directly asking about them. Some informants contrasted CHW communication with a reportedly more problem-focused health professional approach. Peer Supporters and Slimming World Consultants also described openly showing an emotional response to client distress, so offering clear non-verbal recognition and legitimisation of the client’s feelings.

To summarise the relevance of Burleson and colleagues’ work, the data suggested that CHWs were adopting more HPC approaches to communication compared to traditional professionals, which Burleson has associated with more positive evaluations of emotional support by its recipients. The psychology and communication literature suggests that demographic characteristics may, in part, influence whether individuals have the knowledge and skills to deliver HPC approaches but that other factors especially the CHW’s values and personal qualities are also important. The accounts of participants in this study is consistent with this.

Why might CHWs have strong emotional support communication skills?

Emotional support communication skills featured in the training and work experience of some of the workers in this study. However, there may be other routes to expertise in this area. In the following quote, a POW describes her sense that colleagues often have an “*aura*” whereby they have some intangible quality that makes them skilled at supporting

clients. She thinks this may be about experience, but there is an inference that there is more to it. The study data does not provide a complete picture, but it perhaps suggests consistency with Burleson's finding that some individuals are naturally better emotional supporters, and that the person's psychological characteristics play a part in this.

"We can see some people are just winners all the time. No matter what the situation is, or how sensitive it is, they've just got this way about them, that they trust that person. I don't know what it is, but it obviously works. Maybe it's just all their experience. They know the right things to say. They know what to do, what not to do. They ask the right questions. And that obviously is with experience. But some people are really, really good at it, regardless of the community that you're dealing with. "

POW 8

The difference between professional and CHW emotional support skills was attributed to a professional culture that favours telling clients what to do, and a lack of recognition on the part of professionals that this approach was not always appropriate. Workers described how they avoided directive support, and problem-centred communication, and related it to their own negative experiences with professionals. However, it was also suggested that some professionals, while possessing appropriate skills, were unable to use them due to a lack of time (Section 8.1.2). In addition, in the Peer Support Service it was suggested it might be inappropriate for professionals to engage in the HPC approaches that involved open expressions of emotion and sharing of distress. In other words, behaving in this way was deemed 'unprofessional'. Participants did not raise a further potential explanation for professionals' directive, reductive, problem-centred support, namely that it may be an 'avoidant' coping strategy to avoid burnout, 'compassion fatigue', and 'vicarious traumatisation' when caring for patients or clients in distressing situations. This phenomenon is described in the psychology of the professions literature.(239) (240) CHWs who provide holistic, client-focused support may be psychologically vulnerable as a result,

though the data from this study does not provide significant evidence of this, and the professional literature suggests that there are many 'engaged' rather than 'avoidant' strategies that workers can adopt to minimise this.(240)

CHWs may also have formal *specialist knowledge* of the kinds of responses that might be helpful in emotional support, and the *skills* with which to deliver them. As already mentioned, empirical evidence has shown that the degree of person-centeredness of responses to emotional need have an impact on its outcome. It has also shown that in general most people do not naturally give person-centred emotional support, indicating that it is necessary to train them to do so.(173) It is possible that some of the specialist training received by CHWs in this study meant that they had better knowledge and skills in person-centred approaches to emotional support. Peer Supporters in particular described how the Solihull Approach, their local training programme, taught them to focus on the client, rather than any perceived problem (see quote below). Workers in other services had qualifications in counselling and psychology, which may have imbued them with similar knowledge.

"The sort of messages behind the Solihull approach are sort of containment, and reciprocity...And so the containment thing is about sort of looking after the mums and treating them as a person rather than if they come through the door in the breastfeeding cafes with a breastfeeding problem and they might be worried about something that's happened with breastfeeding but when we actually talk to them there's nothing wrong, the breastfeeding is going absolutely fine, but it's that they're so tired, they might not be getting the support from people around them, they think they're doing something wrong, and so the containment thing is about bringing them in, making them feel welcome, giving them a drink, and not immediately just leaping on what's your problem then? And sort of getting behind how they're feeling. So it's a lot to do with feelings and things and thinking about them as people rather than just a breastfeeding issue." Peer Supporter Manager 1

'Community' language skills were generally not mentioned in the context of emotional support, although one of the POWs related how the concept might be lost in translation

when working with an interpreter. This raises the issue of whether the kind of emotional support described by Burleson crosses cultural barriers, and whether HPC support is received in the same way by individuals from different backgrounds. Indeed, subsequent work by Burleson suggested that emotional support is still required across cultures, but the types of messages and support that people value are quite different.(176) This suggests that different *communication skills*, in addition to language provision (whether via an interpreter or otherwise) may be required in order to provide appropriate emotional support to individuals from different backgrounds.

IV: *“Those words don't even exist in their language. How do you feel about something? They might have the word feel, but when you read - English language is so complex and those words just don't exist in a particular language. They actually don't culturally think that way. Things are the way they are because that's how they are. How you feel about it is a different thing completely. I always find that quite interesting, actually.”*

I: *“Very interesting, in the kind of multicultural environment particularly this service is in, how do you make sure everything means something for everybody?”*

IV: *“Sometimes when we ask, we go to a client's house and say, 'How do you feel about that?' Sometimes there's an interpreter there interpreting and you just see them laughing, because no one's asked that type of question before. 'What do you mean by that?' It's always like they feel embarrassed answering the question. That always tickles me.”*

POW 8

Personal Qualities

Some of the *personal qualities* described by participants could intuitively be assumed to impact on the emotional support process, though this relationship was not explicitly described by subjects in this study. Emotional support includes sympathetic listening, and demonstration of caring and accepting behaviour.(172) Personal qualities highlighted in this research such as *empathy, compassion, non-judgmentalism* and an appropriate *disposition* (for example warm, friendly) may deliver this, but this was not surfaced by the data. Using Burleson's definition of good emotional support (i.e. HPC approaches), these personal

qualities *may* also be associated with the sensitive exploration of, and response to client feelings, and less likely to result in LPC communication (which may criticise or fail to recognise client feelings, and presume to tell clients how to think or behave). Where workers hold particular *values or attitudes*, this may inhibit their ability to provide emotional support, though again this was not described in the services sampled; it is merely a hypothesis, based on descriptions of Peer Supporters who were more pro-breastfeeding. It is possible that workers who attach a high value to breastfeeding may find it personally challenging to communicate acceptance and reassurance to women who want to stop. This does not necessarily imply passing judgement on the client, more that supporting women to stop breastfeeding may contradict workers' strongly held values so much as to inhibit their ability to 'be there' in an effective way.

There was one isolated direct description of the relationship between personal qualities and emotional support. Here, one of the POWs describes how she and her colleagues are caring, and "*want to be there*," and how this impacts on the motivation to provide emotional support to clients. She contrasts this with professionals who "*have to be there*."

IV: *"The difference of us being there, it really has to be, for me, that you want to be there, more than a professional having to be there."*

I: *"Hmm, that's interesting."*

IV: *"Do you understand?"*

I: *"Go on tell me a bit more what you mean."*

IV: *"Whereas I could be thinking, 'Gosh, I have to go. I have to go with this person,' for me it's, 'I want to be there. I want to be there for them.'"*

I: *"Is that the same for all of you, do you think, your colleagues as well?"*

IV: *"I'd say a lot of them, you know, I could say, yeah, that goes for everybody, because we do want the best for our clients, you know, their welfare, everything."*

I: *"And why do you think you and your colleagues are that way, so much that way, compared to professionals?"*

IV: *"I think it's just in us."*

I: *"And it's something about who you are?"*

IV: *“It’s who you are as a person, you know, we’re caring.”*

POW 6

Client-Worker Similarity

Similarity between worker and client, and its impact on emotional support, has already been discussed in relation to worker knowledge and communication. Participants related how shared demographic characteristics and similar life experiences influenced the worker’s knowledge about how their client might feel, resulting in more appropriate emotional support, though it was also suggested that personal qualities such as compassion and empathy might compensate for a lack of similarity. CHWs recalled their experience as service users, and non-professional people, and gave accounts that suggested they believed that behaving in a problem-centred way, and telling clients what to do was inappropriate. It was also suggested that non-professional workers were not constrained by professional norms that discouraged openly showing emotion.

Similarity was also associated with personal qualities. In some cases a lack of similarity was associated with a degree of judgmentalism towards certain client groups, although this was by no means inevitable. The data did not provide examples of how this impacted upon support, but it can perhaps be surmised that a negative attitude to or lack of understanding of the client might hinder workers’ ability to behave in a caring and accepting way, hindering emotional support. The following quote illustrates the assumptions that socioeconomically dissimilar workers might make about their clients, even if the individual acknowledges that they are only assumptions, and is uneasy about making them.

“I don’t know if the type of people who would go to the [deprived locality venue] would be similar to the people...The people that go to the [affluent locality venue] are all lovely people. But you can see they are genuinely loving, smoke free, typical, you know...I hate saying all

this...But, you know, everyone speaks nicely, the way they speak to their children is not horrible, they don't swear at them. They're all wanting to do things. They've all got the more money to do other things... lovely parties for their children and it's all lovely, lovely, lovely and all that. Whereas, I don't know if this right at all cause I really don't know but I'm making an assumption that at [deprived locality venue] I would assume that people would be smoking or maybe they wouldn't speak to their children brilliantly well or they'd have issues at home. Money would be more of an issue; they wouldn't be able to afford to do the activities that maybe people around here could afford to do."

Peer Supporter 3, not working with SES-discordant clients

Similarity was also felt to be an asset in providing companionship support. There was a suggestion that workers who did not look like professionals were able to pass as a friend or relative when supporting clients, and thus appear more like natural social companions. In the following example a POW explains how she sometimes removes her badge when providing this kind of companionship support.

"Like if they haven't got a partner or they're pregnant and the dad's bugged off, they may just have left care, or they may have no family support, so a surrogate partner is probably wrong, because you're not, but you're just so they're not alone in their pregnancy. So part of the support I could give you may be to attend antenatal appointments with you, so you're not on your own or so you feel a bit supported. I might not wear my badge if I go to some antenatal appointments with them or have it on display. I don't know why we do that...I just think it's quite sad really for somebody to not be able to share their experience, and there are some women that are completely alone and they've had a sexual encounter and ended up pregnant, might not know who the father is or if they do, they might not have told him, they might not have any family support, they might have a history of abuse. And I think everybody deserves at least that, somebody to go with them or just to not be alone."

POW 4

Volunteer or Paid Status

Volunteer or paid status was related to passion and motivation to help women by participants in the Peer Support Service. While they did not make a direct connection to emotional support, it is possible that they may be more committed, enthusiastic emotional supporters due to the fact that they are motivated purely by altruism and not financial reward, though the data does not provide evidence of this.

8.2.3.2) Role characteristics and emotional support

Continuity of worker was perceived to impact on the provision of emotional support indirectly by promoting better needs assessment (see section 8.1.2) and improved engagement (see chapter 9). This is discussed elsewhere and not repeated here.

The *group setting* was stated to provide enhanced emotional support by virtue of the presence of others, who themselves helped fellow clients, and fostered a caring atmosphere where clients felt valued (of course, in reality this may not be the case for all groups, or for all individuals who attend them). As with informational support, CHWs in group settings were described as facilitating the emotionally supportive communication between clients.

Date and time of support was reported to have an impact on emotional support, with a number of participants giving accounts of workers offering or conducting support outside usual working hours, and they suggested that this indicated to clients that they cared. The demonstration of esteem and care are a prominent feature of academic definitions of emotional support.(48, 172-174)

“So even little things like I remember she called me the one week because for some reason I hadn’t got to group, which was unusual, so she called me up on a Sunday morning and she was like is everything okay, because you haven’t been to group and I was like gosh, you’ve noticed I wasn’t there. Yeah, well, erm I have had a bit of a dodgy week and I am struggling a bit. And she just had a bit of a chat with me, and that was it then, I was like oh, I’ve got to go back next week, just that sense that yeah, I’m not just - she’d got a very big group, she’d got a double session with about 80 people coming through. So the temptation is to think oh, they won’t notice if I’m not there, but it was very much the opposite, she did notice and she did care.”

*Slimming World Consultant 1,
describing her experiences as a client of the Service*

The *core tasks* that CHWs undertook were also reported to include emotional support. For example, Slimming World Consultants were trained to take members through specific activities during a group session, including praise, and exploration of how individuals were coping with the programme. In contrast, in the M&T Service, while emotional support was provided, it was not described as an explicit element of the training or CHW role.

The *enacted philosophy of client focused support* was described as providing an environment where an individual's thoughts and feelings were the priority, rather than a health professional approach which was often felt to be focused on problems. This aligns well with Burleson's person-centeredness concept, as discussed earlier.

The *limited responsibility* of CHWs compared with professional colleagues was described as providing more capacity for emotional support, as there were fewer competing priorities, although it was not possible to separate increased worker *time* from limited responsibility – the key was increased capacity. In the following quote, a POW describes how time allows workers to explore clients' feelings compared to midwives.

"I think what we do is, we just, I think you just have a lot more involvement with them, you have more... but you probably see them more often, and you've probably got a little bit more time for them, compared to, probably, the midwife does. Because whereas, you know, the midwife, you're in there, you've been checked, 'Have you got any issues? blah, blah and there you go, off you go.' Whereas when we go in, I suppose we've got a little bit more time to talk to them and ask them about how they feel."

POW 6

8.2.4) Appraisal support

Appraisal support involves assisting another to evaluate themselves, and their situation, and can include elements of social comparison or active reassurance that a person is 'normal'.

8.2.4.1) Person characteristics and appraisal support

Knowledge and Skills

A worker's *knowledge* may enable them to provide clients with information that helps them to assess their own situation. The data provided examples of *population knowledge*, including demographic (for example that women in the client's socioeconomic group can and do go back to college after having a baby), or experiential (for example that some babies feed very frequently and it is normal). CHWs also described *specialist knowledge* such as that which can help a client see, and evaluate the appropriateness of how much sugar she is consuming. In the following quote, a Peer Supporter relates how, thanks to her knowledge of breastfeeding, she is able to help distressed clients to see their experience as normal, and reduce feelings of failure.

"We're telling them what the reality is, really. And we do that with our antenatal feeding sessions. Because so many mums come and say, 'Didn't think it would be this hard. Everyone says it's really natural,' and it is really natural, but it doesn't mean it's easy. But a lot of people don't tell them that. So then a lot of them not knowing that and things like cluster feeds and they're feeding or not, and you're thinking, 'I haven't got enough milk because they're feeding non-stop from about 5 o'clock and it must be me. I can't be doing it right.' And, actually, that's all reasonable, but they don't know that. So as much as we try not to put too much of a negative spin on it because you don't want to put people off, I think giving them the facts about cluster feeding and all those kinds of things and night feeds, prepares them so that when it happens, they're not like, 'Oh, it's me. It's something I've done.' They know that then it's normal and they can just ring or pop in and they can see one of us and we can just reassure them."

Peer Supporter 5

Certain *skills* were mentioned in the context of appraisal support. Workers needed to be able to explore clients' situations, and assist them in evaluating them in context, which implicitly requires a certain level of *communication skill*. Communication skills were also relevant in the group context, where CHWs reported drawing other group members into discussions where they knew their experiences would provide an opportunity for social comparison. Where workers had *specific skills* such as cookery and breastfeeding, this meant that they could provide practical demonstrations, and an opportunity for immediate social comparison, enabling clients to see that the skills were something that they could master themselves. Of course, in the case of breastfeeding, this required that workers had not yet weaned their children, which was not always the case.

Personal Qualities

For the most part, *personal qualities* were not explicitly mentioned in the context of appraisal support. The one exception was *values*. Where Peer Supporters were perceived as being particularly pro-breastfeeding, it was suggested that this resulted in support that favoured breastfeeding, and did not fully explore the range of options, including stopping.

"I think, [she] is quite breast focused. I mean, she wouldn't even consider giving formula and that was the way. She would say that's a twelve month definite without question. Whereas, I'm quite different from [her] as a peer support worker. I'm like just do whatever's best for you rather than... [she]'s great with people as well, she's lovely, lovely, lovely. But for her she's more and more like [the midwife] in that she wouldn't talk about formula or things whereas I just feel whatever's right for you."

Peer Supporter 3

In addition to this, it is likely that *empathy*, *compassion* and *non-judgmentalism* influence a worker's ability to help a client see their circumstances in context, though the data does not provide concrete examples.

Client-Worker Similarity

Similarity to the client was frequently discussed in relation to appraisal support. Where a CHW was similar to their client, she could be a valid social comparator; in other words, the client could use the worker as an example of how she might think or behave. The Peer Support and Slimming World services provided the majority of examples of social comparison in this research. In the quote below a Peer Supporter provides living, breathing evidence that breastfeeding does get better after the first difficult weeks. A worker who had not had experience of successful breastfeeding could not evidence this fact. Though this was not reported in the data, this kind of support might be particularly important where the social network does not include women who have successfully breastfed, as is often the case in some communities, where breastfeeding rates are low and new mothers' own female friends and relatives have often had no experience, or negative experience of the practice, potentially resulting in women feeling that breastfeeding is something they cannot achieve.

"As a mum, all they need is for you to be a mum that's got kids that are older than theirs so that they know, actually, you can come out the other end and have a really nice experience. It just takes a bit of time for it to settle down, sometimes."

Peer Supporter 5

The above example indicates the relevance of *shared experience*. Shared client-worker *demographics* were also cited as relevant. Again, this phenomenon appeared in the Peer Support Service. Participants described how workers from similar socioeconomic or age groups to clients could change client attitudes, resulting in them seeing breastfeeding as something women 'like them' could accomplish.

"We're looking at the social marketing campaigns, linked with our Peers, because the three pieces of artwork that we use were three mums who were peer supporters from [local town], young, under 22. And again, that had a lot of clout with messages, you know, sending out, 'You don't have to be mother earth, middleclass, you know, white, supported women. You can just be you and it doesn't matter who you are, it's for everyone.' Because again through

research we found that the mums say 'Oh it's something that posh women do.' We want to dispel all those myths."

Peer Supporter Manager 2

The above examples involve the worker being physical evidence for social comparison, without any active support occurring on the worker's part. CHWs also described a more active process, where they shared stories that enabled social comparison, and assisted in the client's appraisal of herself. Slimming World Consultants were encouraged to produce display boards detailing their own weight loss journey, along with photographs, to show members what it was possible to achieve. The following example, also from Slimming World shows how a Consultant verbally disclosed her own experience to help the client see that her attitudes and behaviour were understandable, and normal. This example clearly illustrates the overlap between appraisal and emotional support, in that the disclosure was aimed at reducing negative self-appraisal.

"Self disclosure can come in really handy. Like 'Do you know what, I used to think that, when I joined as a member I used to think that and it was only when I went up for my training that I realised and I was told x, y and z.'...So if someone's feeling a bit of a - you can see it on their face, they're feeling a bit of a prat because they didn't realise that there would be syns in sugar free jelly [i.e. it is an unhealthy choice]. It's like 'Well you're not on your own.'"

Slimming World Consultant 1

These examples suggest a process that is supported by Social Comparison Theory. This theory states that an individual's self-concept is influenced by comparison with others in appropriate reference populations. Where this influence is positive, it can boost coping, self-esteem, adjustment and wellbeing.(125) It can reassure, and reduce feelings of deviance or 'uniqueness' (i.e. that nobody else is experiencing the same). There is also evidence that social comparison can influence social norms and health behaviours.(241)

It is important to note that similarity had to be disclosed to the client in some way in order for it to provide an opportunity for social comparison. This means that simply recruiting similar workers will not necessarily offer this function. For example, midwives may have experience of breastfeeding but there was a general view in the Peer Support service that it was less appropriate for midwives to disclose and discuss their personal experiences, as there was a need for professional distance. Similarly, a number of POWs had experiences that could have been shared with clients, such as domestic violence, losing a child, or struggling on a low income. However, the POWs related how they did not generally disclose such experiences.

It has already been suggested that *personal qualities* such as *empathy, compassion and non-judgmentalism* may improve the quality of appraisal support. Similarity to the client may, in itself, enhance these qualities.

Volunteer or Paid Status

Volunteer or paid status of workers was described as making a difference to the appraisal support process by some Breastfeeding Peer Supporters (who were volunteers). They suggested that they were more free to support women to do what they wanted, providing *client-focused support* (a role factor discussed shortly) regardless of whether this involved continuing or stopping breastfeeding. There was a sense that paid workers might feel more bound to fulfil their organisational objectives, rather than supporting women's decisions freely. The following example demonstrates this, though it must be said that the same participant suggested that some of her colleagues were still very "*breast-focused*" despite

their volunteer status, as a result of their values and attitudes to breastfeeding in general, so volunteer status is certainly no guarantee of client focus.

I: *“Would being a paid worker make the role different?”*

IV: *“Yes, it would. Because I’m such a goody two shoes when it comes to work, I want to do a really, really good job and if that meant I had to ensure that someone kept breastfeeding because that was what it was all about then I would maybe feel more pressured to say or not say, ‘don’t worry if you want to use a formula.’ I would try maybe more of an encouragement on that side. Yes, I think it would affect me, actually.”*

Peer Supporter 3

8.2.4.2) Role characteristics and appraisal support

Participants described how clients’ attitudes to themselves changed over time, in an incremental way. There was a sense that *continuity* and *time* afforded CHWs the opportunity to provide *ad hoc*, ongoing appraisal support that gradually shifted clients’ self-concepts, and attitude to their situations, particularly where cases were complex. Here a POW talks about how she helped to shift her client’s attitude to herself, and to working with other services. This particular client started out with the expectation of having her child removed. At the end of her support relationship she had been allowed to keep custody of her baby, and had turned her life around.

“Just by going and walking the length of [the town], collecting her medication, doing her shopping, walking back down with her, talking to her about the things, ‘They’re always judging me,’ and I’m like ‘Well, it’s an assessment centre, that’s what their role is, they will judge you,’ and ‘I’m not allowed to have the baby on the bed,’ and I’m like ‘That’s a rule and it’s not just you, everybody else has got the same rules.’...Allowing her to put herself first, ‘Oh I won’t buy - I really love cakes,’ just silly things like ‘I really love cake but I won’t buy that this week,’ she would just never treat herself. She said that she’d had no new jeans for years and she hadn’t bought anything because her whole life was just alcohol and heroin. There was no furniture, there was a single mattress... I actually enjoyed going up to do her shopping with her or just seeing her change her attitude towards different people.”

POW 4

The *setting* provided opportunity for appraisal support where venues provided facilities for guided activities such as cookery. In this sense, the chance to try activities and for the worker to actively support the self-appraisal process during the activity was seen as making clients more likely to shift their perceptions and subsequently try the activity again. *Group* support approaches, mediated by the CHW, were also seen as facilitating appraisal support, as other group members provided additional individuals who could act as social comparators.

Often, appraisal support was a *specific task* within the CHW role (though not described by this term), and workers reported being trained or instructed to help their clients evaluate their own circumstances with a view to improving their wellbeing or changing their behaviour

The *enacted philosophy* of the CHW role were also reported to impact on appraisal support. The *empowerment and client-focus* appeared to result in support that was focused on improving the client self-concept, rather than aiming for other outcomes that serve the professional and organisational objectives but might not be in the best interests of the client.

“So, that’s a big one, formula and [professional colleague] will always try and breast, breast, breast, breast, breast. Yeah, that pressure a little bit as well...I mean she’s lovely about it but she’ll never say; ‘if you want to do formula, go for it.’ You know, ‘if that’s what you want to do and that’s your decision, brilliant.’ She’ll never say ‘do it’ and a lot of mums will cry and they’ll be in tears and it’s really emotional...It’s “Try with the breast, try with the breast, try with the breast.” Which, maybe is her role, I don’t know. And that, almost their role, or the success of their role, is if the stats are good then they’re doing a good job. Whereas I would say ‘look, take the pressure off yourself, if you want to give him a formula at night, you know, if that’s what you want to do, go for it. If you don’t want to do it, you know, keep going with the breast, it doesn’t matter, just do whatever’s right for you.”

Peer Supporter 3

However, as described earlier, some Peer Supporters related this to their *volunteer status* rather than a simple function of their role, and there was a suggestion that if they became paid workers this freely given appraisal support might be compromised. The POW service challenged this notion to a certain extent, as its workers gave accounts of focusing on client needs, and how this was a key part of their remit, though as a result of their client-focused employer they were perhaps less under pressure from targets compared with the breastfeeding services in the Peer Support service. Indeed, the POWs had come under criticism from their commissioners due to their support for clients reducing, rather than quitting smoking during pregnancy, but their employing organisation had supported them and advocated for this approach where clients were deemed unable to consider quitting.

8.3) Summary of section on appropriate social support

This section has explored the function of CHW person and role characteristics in delivering appropriate social support to clients, introducing social and emotional support theory where to-date it has not been applied in this context. The data suggested two distinct activities that workers undertake in providing social support. First, CHWs must be able to assess client needs, and second, they must provide support which meets those needs. All of the person and role characteristics, with the exception of volunteer status and needs assessment, were reported to have an influence on these activities, and there were many occasions where traditional professionals were perceived as not displaying the characteristics, and as providing less appropriate support as a result. However, it must be noted that these characteristics were not evenly distributed even within the services studied, and their importance may vary depending on the context. For example, being non-judgmental may

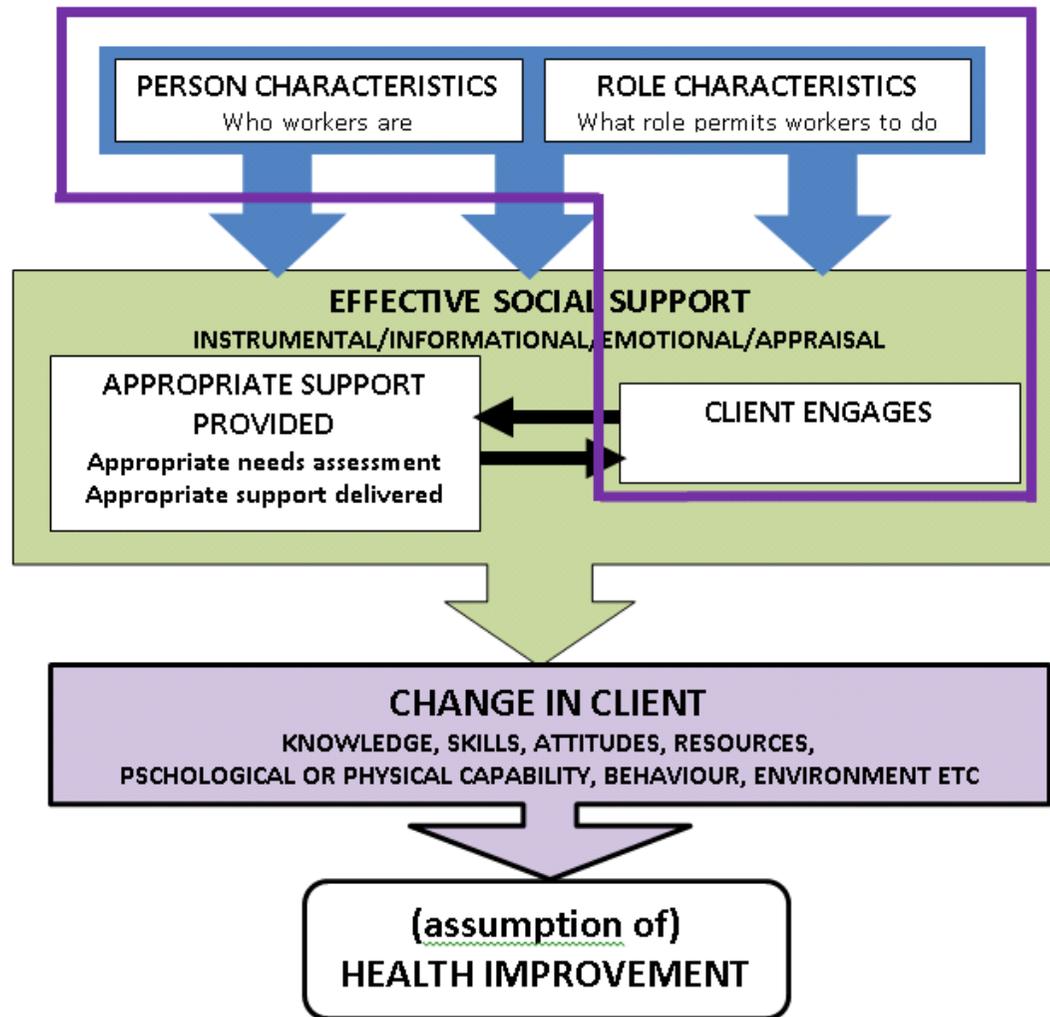
not be necessary in order to provide instrumental support and signpost a client to another agency, but it may be more relevant in assessing need and putting together a plan for support for a woman who is reluctant to give up smoking.

CHAPTER 9) DETERMINANTS OF THE EFFECTIVENESS OF SOCIAL SUPPORT: CLIENT ENGAGEMENT

The previous chapter has argued that a broad conceptualisation of social support, informed by Langford's typology, is central to understanding the mechanism by which CHWs aim to bring about health improvement among their clients. In turn, this has enabled me to undertake a theory-informed analysis of CHW characteristics – both of the worker and of the role – to understand how these influence the quality of the relationship a CHW is able to develop with a client, and which in turn determines the quality of social support provided.

In this chapter I now move to explore the client element of the CHW-client dyad. Specifically, I consider client engagement and the factors influencing this critical activity. To do this, I draw on the communications and behavioural psychology literature to define 'engagement' (Gruman et al (242)) and explore the influences on whether clients engage (Michie et al (243), Gudykunst et al(244, 245)). I will then refer to the empirical data to explore how CHW person and role characteristics might encourage clients to engage, or mitigate barriers to engagement. Figure 13 illustrates the portion of the model which is addressed in this section of the thesis.

Figure 13: The CHW mechanism, chapter 9



CHAPTER 9 explores the relationship between the person and role characteristics presented in chapter 6, and the level of client engagement with CHWs (chapter 7), other agencies, and other behaviours. It draws on a series of theoretical frameworks, including the work of Burleson (emotional support), Gruman (patient and client engagement), West and Michie (client behaviour, motivation to engage), and Gudykunst (anxiety and uncertainty as barriers to engagement).

9.1) What does client engagement involve?

Practitioners and academics alike speak of 'engagement' of CHWs with target populations, but, and as with the use of other terms in the CHW literature its precise meaning is unclear and the literature suggests it encompasses a range of activities (see chapter 2 for more detailed discussion).

Gruman et al provide a framework for understanding patient engagement in health and healthcare.(242) In brief, Gruman et al postulate four levels of engagement: preparation, interaction, action and follow up. These levels illustrate the complexity of the engagement process, and the steps which services ordinarily follow in order to successfully engage target client groups. I have used the broad categories within Gruman's framework to develop Table 11, which summarises the types of engagement observed in the services sampled, using a hypothetical Slimming World member as an example.

Table 11: the range of activities involved in client engagement, from Gruman et al(242)

Level of engagement	Behaviour	Example using a hypothetical Slimming World Member
Prepare	Perceive problem and decide to seek support	An individual identifies that they are overweight and wants to do something about it
	Identify sources of support	Identifies that Weight Watchers, Slimming World and the GP can provide support
	Choose support	Selects Slimming World
	Investigate how to access	Finds out the times and locations of local groups
	Arrange interaction	Arranges childcare and plans to go to a specific group
	Prepare questions	Writes a list of things to find out about
	Bring necessary information or resources to meeting	Brings money to pay for session
Interact	Present to service (on time)	Attends punctually
	Listen to what is said	Listens to the Consultant, and to other Members
	Disclose necessary information	Tells the Consultant what she would like to achieve, and what her perceived barriers are
	Participate in activities	Is weighed, and joins in the group discussions
	Ask questions	Asks about cooking for a family while on the plan
	Negotiate a plan	Sets goals for next week with the Consultant
	Accept advice and support	Believes it when others say she can stick to the plan
Act	Accept the plan	Is happy with the goals and tasks agreed
	Adhere to the plan	Modifies behaviour according to the plan
	Monitor outcomes	Keeps track of food intake, monitors 'syn' intake
Follow up	Keep in touch	Lets Consultant know when she can't make it or is having difficulties staying on the plan
	Keep future appointments	Attends regularly

9.2) What constitutes engagement in the CHW context?

Gruman's framework helps to illustrate the levels of engagement observed in the data.

However, it is not the full story. Engagement, according to the participants in this research, is a reflexive, varied process. An individual may only engage in some ways, and not others,

for example, some POW clients were reported to engage with support to obtain material benefits, but to decline emotional or appraisal support to improve their wellbeing. Additionally, an individual's engagement behaviour may change over time, for example M&T Workers described how some clients increased their engagement in discussions over the duration of a cookery course. As such, the framework proved somewhat unwieldy as an analytical tool in this study. On further scrutiny, for the purpose of exploring the concepts in the CHW context, I will argue that engagement can be synthesised more simply into three separate categories of client activity; engagement with CHWs, with other agencies, and with healthy behaviours (Box 9). The following analysis focuses in particular on the engagement with the CHW, and the impact of CHW person and role characteristics on this process.

Box 9: Categories of client 'engagement activity'

Engagement with the CHW:

e.g. attending an appointment, listening to a worker, asking questions

Engagement with other agencies and professionals:

e.g. visiting housing services, speaking to a social worker

Engagement with healthy ideas or behaviour:

e.g. the idea that breastfeeding is not just for 'posh' people

e.g. attempting to cook a healthy meal

These three categories of engagement activities are in part inter-dependent, that is, the client must first engage with the CHW in order to receive the support that will lead them to engagement with other agencies, ideas or behaviours. Furthermore, positive impressions of the support provided may enhance ongoing willingness to engage. To illustrate this point, the engagement section of the mechanism is exploded in the diagram below,

whereby the solid arrows indicate the client-CHW engagement process, which is essential before any other form of engagement (indicated by the dashed arrows) can occur.

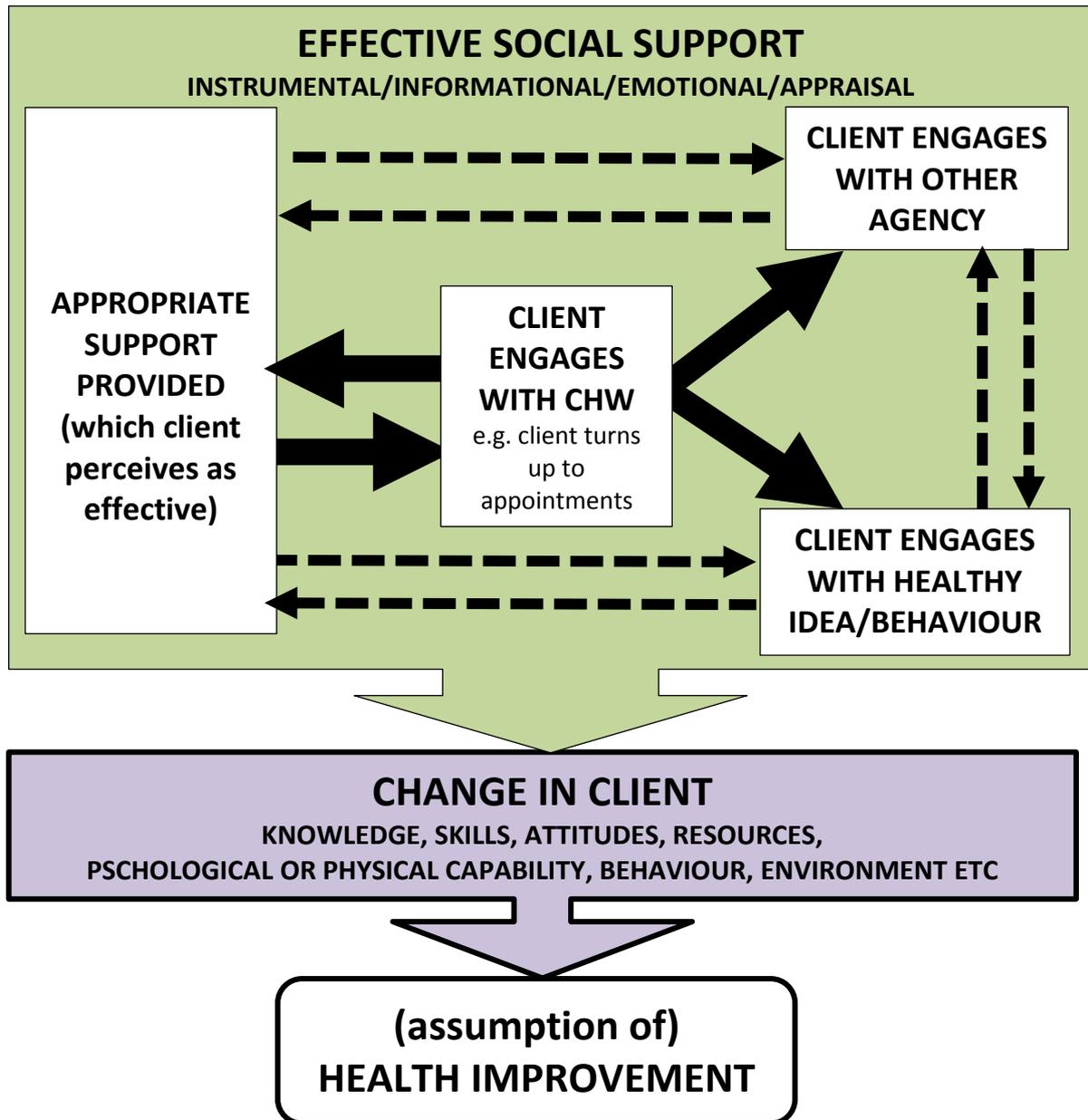


Figure 14: Engagement and the social support mechanism

9.3) What influences engagement?

Following scrutiny of the concept of engagement, and the related literature, it seems that when we speak of engagement we are essentially talking about individuals' behaviour, or 'the act of engagement'. This can be physical behaviour (for example attending an appointment, or attempting breastfeeding) or psychological (for example active cognitive processing of an issue). While the CHW literature does not explore engagement in any depth, the field of psychology, health behaviour change, and patient and practitioner engagement behaviour, proves very illuminating in its conceptualisation of the subject.

One of the key issues in applying behaviour change theory to complex health promotion activities is the range of theories and approaches that exist. Fortunately, recent work by Robert West and Susan Michie has simplified and synthesised these into a single framework for conceptualising behaviour change.(243, 246)

West and Michie's model - the COM-B System - posits that there are three overarching influences on behaviour; capability, motivation and opportunity (Figure 15). Capability and opportunity additionally influence motivation. All three influences are "*necessary*" for behaviour. Interventions can drive behaviour by ensuring that they adequately address these influences in the context of the target population (Box 10).

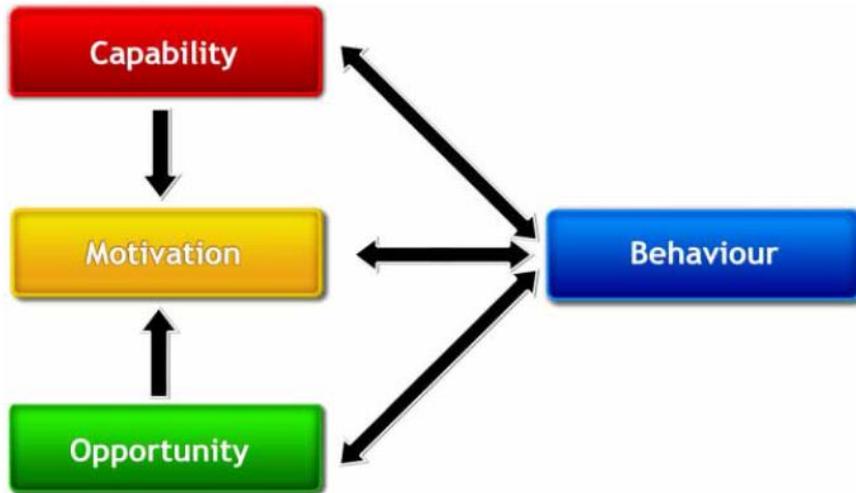


Figure 15: The COM-B System; a framework for understanding behaviour(243)

Box 10: The behavioural influences in the COM-B framework

Capability refers to the physical and psychological ability of individuals to behave in certain ways.

- Physical capability includes aspects such as strength and skill (it may be compromised when an individual has a physical illness or disability).
- Psychological capability concerns the existing knowledge, cognitive and interpersonal skills, memory, attention, decision processes, and behavioural regulation (it may be compromised by psychological illness or disability).

Opportunity relates to the wider environmental barriers to behaviour, and may be:

- Physical (e.g. lack of transport)
- Social (e.g. where behaviour does not fit with social norms).

Motivation is defined as any internal process that drives action, and they can be

- Conscious and reflective (e.g. personal goal setting and decision-making)
- Automatic and unconscious (emotional, habitual and impulsive responses).

The data from the services sampled provided examples of the ways in which capability, motivation and opportunity influenced client engagement behaviour. It also suggested strategies that CHW services might take to address these qualities when they are

suboptimal. In particular, the participant accounts indicated ways in which the person and role characteristics could influence behaviour. A brief description of the three behavioural influences is outlined in Box 10.

The determinants of clients' capacities to engage and the opportunities available to support or hinder engagement, are relatively simple to conceptualise. In contrast, West's category of 'motivation' is more complex. Further, both a client's capability and opportunities will affect, either separately or synergistically, his or her motivation. With this in mind, I have structured the remainder of this chapter as follows: I start by presenting the ways in which CHW person and role characteristics might influence capability (section 9.4) and opportunity (9.5). I then move to consider motivation (9.6). Here, I introduce a related psychological model also developed by West - the PRIME model(247) - and offer an extended discussion on the importance of 'credibility' as a key element in shaping reflective (conscious) decision-making. When discussing autonomic (unconscious) motivation, I draw upon Gudykunst's Anxiety/Uncertainty Management (AUM) theory(245) and suggest that this provides an illuminating tool to understand the communication between CHW and client, which I argue is central to the relationship. In doing so, I explicitly link two key elements of PRIME – client identity and past associative learning – to autonomic motivation and in turn to the AUM model.

9.4) How do CHW person and role characteristics affect client capability to engage?

On the whole, participants did not discuss any physical barriers that prevented clients from *engaging with their services*, and CHW person and role characteristics were not raised in this context. There was one isolated account of a hearing impaired client in the M&T Service, and a sign language interpreter was provided to overcome this potential barrier. Of course, it may be that there were clients who were not reaching the services as a result of physical disabilities. It was not clear whether services had made arrangements to accommodate these challenges.

Similarly, there were few examples of physical barriers to *engaging with other agencies, or with healthy ideas or behaviours*. In contrast, a number of areas of psychological capability were mentioned by participants in terms of engagement across all three categories (CHW, other agencies, ideas/behaviours). These were:

- Client knowledge
- Client English language skills
- Client cognitive and interpersonal skills
- Client memory, attention and decision processes
- Client self esteem

The following discussion relates how CHW person and role characteristics might (or might not) mitigate these challenges.

9.4.1) Client Knowledge

Deficiencies in client knowledge about the service and what it can deliver might impact on client engagement with the CHW. Peer Supporters reported how some clients may never reach the service as they simply were not aware of its existence, despite efforts to promote the service locally.

“They don’t know what to expect. They don’t know there’s a breastfeeding support counsellor, what does that really mean to them? I wouldn’t have had a clue because it was only because I’d gone through the process that I’m now aware of it. But if I hadn’t had [my son] and this is my first pregnancy now, then I don’t know, I wouldn’t know. If my experience is different this time, I wouldn’t have known.”

Peer Supporter 3

The POWs overcame this barrier by actively contacting clients, informing them about the service, and inviting them to engage, thus removing the need for clients to have any prior knowledge of the service. Similarly, Children’s Centre staff actively informed clients about the M&T service, particularly more vulnerable clients who had a greater perceived need. CHW person and role factors were not reported to impact on clients’ knowledge about the service, though conceivably workers may be able to perceive a need to actively inform clients as a result of their *population knowledge or empathy*.

Knowledge was also perceived as impacting on client engagement with healthy behaviours. For example, women were described as not understanding normal breastfeeding infant behaviour, and to have subsequent difficulties in responding to their babies’ cues. Similarly, clients were described as needing information about services, and how they are accessed, in order that they begin to engage with them, for example POW clients were

assisted in sourcing food parcels as they were initially unaware of where to go for help.

This kind of help represents informational support.

9.4.2) Client English language skills

Some clients, most notably in the more diverse POW client population, were not able to communicate effectively in English. This presented a barrier to engagement with CHW services. Clearly, where CHWs have *'community' language skills* this overcomes this particular difficulty, though the following account highlights that there may still be psychological barriers to engagement even when there is shared language..

"If it is a language thing, and the lady can't speak English, and I can speak that language, then, obviously, it would make sense that I would go and visit her, because I can communicate with her. But it all depends upon how open she's gonna be with me. She may not take me on board and she may not wanna talk to me about things."

POW 9

POWs was the only service that had such skills in the workforce but even here struggled to cover the full range of languages required. However, a second option was to use a translator to bridge the language barrier. Except for one instance where the M&T Service used a sign language interpreter for a deaf client (see above), POWs was the only service which described using interpreters. Often POWs interpreted for one another. In many instances using interpreters was viewed to be perfectly adequate, for example where a Chinese POW client needed help to access general practice. However, there was also a suggestion that in some cases the inability to communicate directly might interfere with the relationship, as the quote below indicates.

“I've come and translated on their behalf, got more chance of - but you're not going to develop that bond because there's three in that relationship kind of stuff.”

POW 3

Where interpreting services were not provided, it is possible that some potential clients did not engage with services as a result. It is not possible to assess the reality as this research does not provide information about individuals who do not reach the services studied.

Language skills may prove a barrier before clients ever reach services, particularly if clients must self-refer and find out about services from written resources available online or in local venues.

English language skills were also reported to impact on engagement with other agencies.

Workers related how they were able to overcome a lack of English by undertaking tasks on behalf of clients (for example telephoning the housing office), by acting as interpreters when using other services, or by sourcing interpreters to assist clients in speaking with other agencies. In other words, CHWs provided instrumental support to compensate for language difficulties. In addition to providing help to get around clients' lack of English, POWs also supported clients to access English classes, in order to improve their skills, another form of instrumental support. Section 8.2.1 details the CHW person and role characteristics that were associated with the provision of appropriate instrumental support.

9.4.3) Client cognitive and interpersonal skills

While a lack of English is an obvious barrier to communication, participants also suggested that some clients have difficulty engaging with traditional services as a result of other

communication difficulties. Examples of this occurred in the POW context alone, and workers described how their characteristics enabled them to overcome these issues, and encourage engagement with the CHW service, *and* with other agencies. In some cases the need was particularly great, for example one of the POWs described how she assisted her learning disabled client to understand what her doctor was saying. There was a suggestion that the POW was able to communicate where the professional was not due to her enhanced *knowledge* of the client, in part thanks to the *time* she had spent with her, and to her *skills in communicating* with the client group. It is likely that worker *empathy*, and the *client-focused* and *social support* approach of the service facilitated this, but there were no accounts in the data to support this. POWs described other communication difficulties in their clients, such as not knowing how to access or to contact other agencies in order to address a problem. The POW Service negated such difficulties by being proactive in its contact and support of clients, and by tailoring support to meet their needs; in other words, the POWs did not require their clients to be skilled at navigating their services, as they understood and had the skills to meet client needs. There were no accounts in the other three services of how workers accommodated the needs of clients with communication difficulties of this kind, but such 'silence' cannot rule out the possibility that others may experience difficulties in engaging with these services.

POWs also gave accounts of overcoming barriers to engagement with other agencies by acting as a go-between, checking client understanding, and de-coding what staff from other agencies were saying if necessary. I have described this as an instrumental support function. The person and role characteristics impacting on this process have already been described in section 8.2.1. Workers also described working with clients to empower them

to interact more effectively with other agencies where they had previously struggled.

While participants more commonly reported that self-esteem was a factor here (of which more shortly), there was also an element of clients not having the skills to communicate effectively. POWs gave accounts of working with clients to understand how to communicate, and to accompany them and support them while building such skills. This is probably best described as a combination of informational, emotional and appraisal support, and the CHW characteristics associated with it are described in sections 8.2.2-4).

Participants in the POW and M&T Service related how they were able to overcome cognitive and interpersonal barriers to engagement in health behaviour change for clients who had often left education early, or had difficulties with language and comprehension. Workers described how they provided information to clients which was appropriate to their cognitive needs. This might involve changing the delivery method (for example using a video rather than text), or the language (keeping things simple). This tailoring of informational support, and the person and role characteristics that were reported to facilitate it, are described in section 8.2.2. This information was provided in order to support client behaviour change.

9.4.4) Client memory, attention and decision processes

Some clients, again in the POW Service, were reported to have challenging circumstances, and limited skills in organising their day to day lives. Even when clients had some organisational skills, social or medical difficulties overwhelmed the clients' ability to cope. Difficulties described included making and keeping appointments, and obtaining and

supplying documentation. The POWs addressed these challenges to engagement with the CHW service by minimising the personal management skills required by clients. One example is where POWs travelled to clients when and where they were, eliminating any need for the client to be organised. Person and role characteristics that made this possible included *knowledge* (that the client needed this approach), *persistence* (in tracking clients down), *going the extra mile* (to find and meet them), flexible *setting* (in venue, date and time), the *enacted philosophy of client-focused support* (that took services to the client, wherever she was), and *limited responsibility and time* (which provided the capacity to work in this way).

A second example of adapting services to meet client engagement needs is where a POW arranged to meet a client at the same time each week so that she would not forget her appointments. The extremely flexible approach described by the POWs was clearly a response to a client group with additional needs. The other services were, on the whole, providing services to a broader client group that was better able to engage effectively at regular times and places, and without additional support.

Similarly, some of the higher social risk clients were reported to struggle in reaching appointments and engage with other agencies, and it was suggested that without POWs' help they would be unlikely to do so. While participants did not refer directly to the terms 'memory' or 'attention', they described clients with chaotic lives, suggesting that perhaps adherence to appointments was a challenge for them as their minds were on other things.

Decision-making about engagement in health behaviours was another area where CHWs reported taking a role. Even where clients had the requisite knowledge, it was suggested that they had trouble evaluating the available options and deciding on the best course of action for them. It must be said, however, that clients' inability to reach decisions may be less a feature of permanent psychological limitation, and more to do with acute stressors and outside influences inhibiting capacity. For example, Peer Supporters related how conflicting advice, social pressure and emotional stress all impacted on women's ability to make decisions.

Participants, particularly in the Peer Support and POW Services, related how they provided appraisal support, assisting women to make decisions about their behaviour. The CHW characteristics that facilitate appraisal support in this context are detailed in section 8.2.4. Workers contrasted their approach with that of professionals, who were often perceived as not supporting decisions, but rather giving dictatorial advice. In the Peer Support Service, professionals were also reported to give conflicting breastfeeding advice. While some participants acknowledged that different Peer Supporters also gave conflicting advice, there was a sense that they did this in a context of offering a range of options, while providing support to explore them all, and reach an independent decision.

9.4.5) Client self-esteem

Many clients, particularly in the POW service, were described as having difficulties with confidence and self-esteem. PRIME motivation theory states that self-esteem is crucial in order that we can follow up on our intentions.(247) In the services studied, low self-esteem

impacted on engagement with the CHW service, and was sometimes so significant as to prevent clients from leaving their homes. It was also reported to impact on clients' level of interaction and questioning during CHW activities.

In order to address self-esteem issues workers had to have knowledge of them.

Participants related how they knew that members of their client group had low self-esteem.

"I think possibly some of the people that we work with, the client groups we work with, not exclusively but some, perhaps possibly have got low self esteem and I think really, it's sort of developing them as a person."
M&T Worker 1

One strategy to overcome barriers to engagement with the CHW due to self-esteem issues was to work around it. For example, POWs proactively contacted clients, eliminating the need for clients to have the confidence to make initial contact themselves. POWs were also able to visit clients at home, thus negating the need for them to have sufficient confidence to leave the house and visit a clinic. This was perhaps possible due to the POWs' flexibility in *location* and *time*, and the *limited responsibility* and additional *time* afforded POWs the capacity to work in this way.

Another strategy to enhance engagement was to address low self-esteem through the support process. The following quote from a M&T Worker illustrates how she does this in order that clients continue to engage with the course. It demonstrates how the *enacted philosophy* of client *empowerment* can impact on engagement.

"So what we're trying to do is week one, none of the recipes are critical insomuch as there's very little that can go wrong, they're not even weighing things at that stage, it's all very add this, add a bit of that and mix together because it's to increase their confidence. If they get a failure at week one, the chances are they won't come back for a second week."
M&T Worker 1

Engagement with other agencies was also reported to be hampered by a lack of self-esteem, most notably in the POW service. It was suggested that POW clients lacked the confidence to telephone other agencies, or to raise questions with health professionals. Again, sections 8.2.3) and 8.2.4) describe how CHW characteristics facilitate the emotional and appraisal support that can improve self-esteem and empower clients to engage with services independently. However, POWs also compensated for clients' low self-esteem by providing instrumental support, contacting and dealing with other agencies on the client's behalf. This is a form of instrumental support, and the CHW characteristics that influence this are detailed in section 8.2.1).

Self esteem was also reported as a barrier to engagement with healthy behaviours. For example, POW clients were described as lacking the self-esteem to leave an abusive relationship, and M&T clients were reported to lack the confidence to attempt recipes due to a long-standing lack of self-esteem.

"Parents that come in and say 'I can't cook, oh I burn everything,' and 'My mother used to say I can't do this because...' So they've had their confidence knocked from an early age at home possibly, when 'No, it's quicker for me to do it myself, you go out of the kitchen.' Whereas perhaps you and I would include our children in helping out making the cakes and that, so we're giving our children the confidence from an early age and building on it, some of these haven't got the confidence."

Children's Centre Worker 1, M&T

Participants related how they built client self-esteem through emotional and appraisal support. This was often an incremental process, and workers reported improvements in self-esteem resulting in clients being willing to attempt a behaviour at home. Success in these attempts was then described as leading to further increases in self-esteem and healthy behaviour. The person and role characteristics that impact on appraisal support are

described in section 8.2.4). However, the following example illustrates how this process can change client behaviour.

“We'll get to the end of the group and [Sheila] might say ‘See, you said you couldn't cook. Look at that!’ And it's ‘Oh, I've made that. I can take that home.’ And we take photos and as I say the children, and then it's a case of ‘Oh, you can't eat it, it's lovely, I've made that.’ So you can see them growing in confidence from that shy person to ‘Actually, I've been into Asda and I've brought some of that fish,’ or ‘I've been to so and so and I've tried it,’ and the fact that then they're going home and trying it with the children. It's given them the confidence to then go and do it for their children, or they'll say ‘I cooked it for my mother in law because she came round and I would never have done that.’ So it's a big confidence booster, it really is. And it's great to see them glowing and coming back when they come and say ‘I've made such and such,’ and it's so wonderful to see that.”

Children's Centre Worker 1, M&T

9.5) How do CHW person and role characteristics affect client opportunity to engage?

The COM-B framework for behaviour change stipulates that there are both physical and social barriers to behaviour that operate alongside client capability. These are presented here and the impact of CHW person and role factors in assisting workers address these is considered.

9.5.1) Physical Barriers

There were a number of physical barriers to client engagement across the services, and often CHW person and role characteristics played a part in overcoming them (Box 11).

Box 11: physical barriers to client engagement across the services studied

Resources

- No transport
- No childcare or child-friendly facilities
- No money
- No equipment or supplies (needed for healthy behaviour)

Time and place

- Distant or inconvenient location - proximity
- Inconvenient time - availability

In terms of engagement with CHWs themselves, most of the examples in this section arise in the POW Service, perhaps because the service was conceived with the specific aim of improving engagement in a client group that ordinary services sometimes failed to reach. The other services studied* were not designed specifically with the 'hard to reach' in mind. The POW Service had responded proactively to an apparent need for transport in the client group in order that they could engage with CHWs. This was also related to a lack of money on clients' part, as it was reported how public transport costs could be prohibitive. The flexibility in *location, date and time*, and the amount of *time* and *unique scope* created an environment where POWs had the capacity to transport clients in their cars. The *core tasks* that were part of the service, and the *enacted philosophy of client focus* meant that it had the remit to respond to the need when it was identified.

While they were not as flexible as the POWs, the other services reported minimising distances clients had to travel by providing sessions in locations that were local to the client. The Peer Supporters related how they perceived getting to cafés as being too great a challenge for some clients, and how the capability to deliver home visits would have addressed this. The managers related how they perceived the *volunteer status* of the Peer

Supporters as preventing a home visiting service, as they viewed the responsibilities of such as an arrangement as too great a demand to make from a volunteer (of note, other volunteer home visiting 'peer support' services do exist elsewhere in England.(248)).

All services except M&T had made provision for clients who might be unavailable at specific times by offering a range of options. POWs had the greatest flexibility in date and time, even offering out of hours support. POWs' *compassion*, willingness to *go the extra mile*, and the *client focus* were described as influencing this; when clients needed help, within reason every effort was made to provide it. Inflexibility did cause some difficulties in access in the other services. The Peer Support Service was only available during the day on weekdays (women who worked sometimes found it difficult to attend the cafés) and the M&T Service suggested that the fixed time sessions had resulted in some individuals missing parts of the course.

Resources and proximity were physical barriers described as limiting engagement with other agencies and workers. This was only a feature in the POW Service, and predominantly involved instrumental support in the form of transport to enable clients to overcome their own lack of vehicle or money to reach other agencies, and also to overcome their lack of proximity to other sources of support. POWs also gave some clients access to their mobile telephones in order to contact other agencies, as clients did not have a 'phone, or the money to pay for calls.

Examples of instrumental support to facilitate engagement in healthy behaviour included food and equipment to enable healthy cooking (M&T Service), a safe venue for attempting

breastfeeding in public (Peer Support), and transport to assist a client in fleeing an abusive partner (POW Service). A particular example comes from the M&T Service, where families on low budgets were described as reluctant to spend money on food that children may refuse to eat, and the Service overcame this barrier to trying new foods by removing this financial risk. The person and role characteristics associated with instrumental support are described in section 8.2.1.

9.5.2) Social Barriers

A number of social barriers to engagement with CHWs were described, especially within the POW service. Barriers were at the local level, within the home and family.

Some POW clients were reported to be in situations where their autonomy was reduced. Often this was perceived to be cultural, such as where recently arrived spousal migrants (who had come to England as part of an arranged marriage). It was reported that some women in this group were discouraged from leaving the house alone, or were accompanied by family members during POW contact, which was seen as a barrier to open engagement and discussion. In some cases there was underlying abuse. The following example illustrates this point, though it should be noted there is some overlap with Anxiety Uncertainty Management Theory here, as recently migrated women may be more likely to see POW as an outsider (AUM is discussed in more detail in Section 9.6.4).

“There’s some women that I’ve supported that have come in new to the country that know absolutely nothing, because they are in situations where they are controlled by the extended family, and they don’t want them to speak to you. In fact, some families, they don’t even want you to come in, because they just...especially if they’re from abroad, they just think that you’re, kind of, like, gonna fill their head with ideas and things like that...I suppose, it’s,

like, if somebody's...say, if a midwife's referred a woman that's - and most of the time they've only been in the country about a year, a bit less than that sometimes, they've come over, and they're pregnant already – and you go and see them and you explain about the service and what you are there for, type of thing. And then, you know, obviously, the woman's not gonna open up to you straightaway, because she's barely been here a year, maybe, so she doesn't know how the system works, anyway. And, you know, depending on what her family are like as well, and the extended family, depending on what her husband's like. It depends, you know, if she's got a good relationship with everybody, it's fine and, you know, they're quite open and they'll talk to you.”

POW 9

It was suggested that *similarity*, in this case in ethnic background, might overcome family pressure not to engage.

“In some Asian families, living together can be quite difficult at times, when you've got so many generations in there, and we can see it happening. And it was really because the person that we were supporting, her English was really poor and she'd not long been in the country and we kind of won over the family. This wasn't my case, but this colleague of mine had worked with the family, and because she could speak the language, they trusted her.

POW 8

However, similarity in status was a potential disadvantage, and POWs perceived a need in some families and communities to have an association with a powerful professional. This suggests that engagement may be a challenge in some circumstances for workers with low status (i.e are seen to have similar status to their clients), or who do not have strong links with professionals.

“If somebody that's come from abroad, and say if you are a pregnancy outreach worker, because what they all think about, is, like, like the Asian community still respects authority, I'm thinking. Because a lot of the visits I've done, it's, kind of, like, well, I work alongside the midwife, so they accept you and they know they can't stop you from coming in to visit this woman, because it's authority that's, it's the midwife, you know, they're a bit, like, scared of the midwife, not scared...yeah, maybe they are a bit scared of the midwife. I said, 'I work along with the midwife, they've asked me to come in and see you,' and they've asked...They've never stopped me, put it that way, if a woman's being, kind of, like, controlled by her family, they will let me in, and I can talk to her.”

POW 9

Social pressure was not limited to families in minority ethnic groups. POWs described how, where there was control or abuse by a partner, they often made efforts to prevent engagement. Sometimes this was possible to overcome, by arranging to meet clients when the partner was not around, and POWs' flexibility in *time* and *location* made this possible. On other occasions it was not possible.

Social norms were perceived as a barrier to engagement in a minority of cases, all in the POW service. For example, where culture dictates that men and women should not interact, or that men are more powerful than women, this can impact on engagement. Interestingly, in the following example this norm appeared not to apply when communication occurred outside of the cultural group. This illustrates the complexity of engaging with clients, and how instinctive common sense approaches (such as cultural matching) may not lead to effective relationships.

- IV: *"I know that I've been into a home where I've taken a colleague with me and she's wearing - what's it called? Hijab. She wears it for work, obviously. She wears the hijab. But she wasn't accepted in the house and the way they related to her, they just spoke to me and never spoke to her at all, because women in a - she couldn't relate to her because I suppose, in a religious way, he didn't see her as someone he should be talking to."*
- I: *"Oh, so this is someone from the same community as her, is it?"*
- IV: *"Yeah."*
- I: *"I see."*
- IV: *"So he was kind of bypassing my colleague because he had this view that women just don't talk; they're meant to be quiet."*
- I: *"But not with you."*
- IV: *"Because I'm not from that community and that religion."*

POW 8

A small number of the POWs described how prejudice in target communities could impact on perceptions of workers, and sometimes on engagement. Cultural norms about engaging with others were also a barrier to gaining access to clients. Socially excluded groups were

reported to have a culture of non-engagement, for example Somali and socioeconomically deprived white communities had been difficult to reach. Providing workers who had *knowledge of the 'community', and were similar (in locality and being non-professional)* was seen as addressing this issue to some extent, and this was implemented in both Somali and deprived white groups in the POW Service.

"Some communities won't allow you through the door. Some of the typical community places like [white working class area], typically they're a very much cluster area, where you've got a set of streets and they all look out for each other, it's almost like a neighbourhood watch really. They all look out for each other and they don't let outsiders in. it can be quite a racist area too. So the fact that people that live around in that surrounding area already knowing this information gives them a bit more armour to go in, whereas if somebody when trotting in there, suited and booted and talking all the lingo, the NHS lingo or whatever, they would just be like 'Mmm, no, I'm not talking to you.'"

POW Manager 2

Racism in individual clients has already been discussed, but at the extreme end it was suggested that for some POWs racial prejudice made communities 'no go' areas.

IV: *"There's the issue where there are POWs where it's dangerous for them to go into those communities."*

I: *"In what way?"*

IV: *"Racism."*

I: *"Really?"*

IV: *"Yeah. So you wouldn't put them in particular areas."*

POW 8

The Service was described as responding to this issue by an iterative deployment process where workers would not be assigned clients in areas that might be unsafe for them to visit. The fact that the POWs recruited workers from a range of backgrounds made it possible to deploy *similar* workers to the target population when it was required.

Participants also described social barriers to engagement with other agencies, though only in the POW context. The familial cultural barriers to South Asian POW clients leaving the

home were described earlier, and they were also reported to impact on engagement with other services. POWs related how they were able to work with families to change attitudes to allowing women to leave the house, and engage with services such as mother and baby groups and English classes, though this did not work in all cases. This could be described as a form of 'social support for the family', rather than the client, and it delivers informational and appraisal support in an attempt to shift attitudes (see section 8.2 for the related CHW person and role characteristics). The account below suggests that trust is important in this context. The interviewee does not expand on the meaning of this, but the issues around credibility and anxiety raised in the section 9.6 on motivation to engage with CHWs are likely to apply here.

"The woman was able to go to a children's centre and just go to mother and baby and start to - because they wanted to keep her in the house. They didn't want her going there. And she was there and worked with the family and they trusted and because of that she was then able to go to a centre. Where otherwise that wouldn't have happened. 'No, stay in the house. It's not going to happen.' And that happens regularly...But it's just how sometimes families do things. For them, they're used to it and that is what they do...Sometimes they realise that - the ones that I have been part of, I say to them, 'If you're having a child in this country, there's no point in mum not learning English, because how is she going read to her child? How is she going to educate her child?' If the child's going to live here and trying to explain to them that it's important, part of the child's development and all that kind of thing. And I think they do slowly get it. They know really, but that's not what they do. But I think convince them that, 'I trust her with so and so,' kind of thing, and that she's back at a certain time or you know that she's going to go home and dropping her back."

POW 8

There were a number of ways in which CHWs assisted client in overcoming social barriers to engaging in healthy behaviour. In their definition of 'social opportunity', Michie and West include access to ideas, in that some social environments mean that individuals do not even consider some behavioural options as nobody in their network engages in them. An example in this study was in the POW Service, where women were described as never having considered continuing education and training after having a baby, as this was not

something that other women in their 'community' did. The informational support and appraisal support functions of the CHW role (as described in sections 8.2.2) and 8.2.4)) allow POWs to present clients' options, and work through them so that the woman can make decisions about her future.

"So...for some of those women, young women, it's still quite good to have somebody from outside the family, that I think, I don't know if that's a personal opinion but you, if you've got some, a fresh eyes on any situation, it just opens you up to other things that are going on in the community and that could be young parents groups, it could be education, it could be you know, when you've had your baby, if you've got the support you can do this[go back to college] you know, and perhaps give them information on other options for them which they might not get otherwise."

POW 7

While the above example suggests some clients completely miss out on certain behavioural options as they did not consider them, other behaviours were reported to be off limits due to the social environment discouraging them. The earlier discussion on identity related how women experience social pressure not to breastfeed as it is not normal behaviour in their 'community'. The following account from the same participant builds on this, explaining how the social barriers go beyond 'community' norms, but also relate to family perspectives, and the need to avoid upsetting or contradicting individuals who are an important source of natural social support. While the account in the earlier 'identity' section demonstrates that the appraisal support function of Peer Supporters can help to overcome social pressure, these influences were reported to be significant, and in some cases women could not overcome them.

"And people were worried, girls were worried that their mums, and people have said this generally that they bottle fed their babies and they were doing the best that they could at that time, but they feel that if their daughters breastfeed or somebody else breastfeeds that they're telling them that they didn't do the best for their babies. So that's all very deep and emotional. So this is the kinds of things that girls have got to overcome, haven't got to, but that's to actually breastfeed and this is from people that they're seeing everyday and the

people that they're relying on for support everyday, so they might see us, we're available Monday to Friday at the cafes and on the end of the phone and home visits but we're not the ones that are there in the middle of the night when it's worse."

Peer Support Manager 1

Other challenging social barriers related to wider societal, political forces. Some spousal migrants in the Peer Support Service were reported to face difficulties in fleeing domestic violence due to the fact that they had 'no recourse to public funds' through the law. This meant that access to the usual aid (money, hostel accommodation) was not available to them, and leaving an abusive partner may result in destitution and loss of custody of children. While POWs reported accessing support from charities (instrumental support, see section 8.2.1), this barrier was often perceived as too great to overcome.

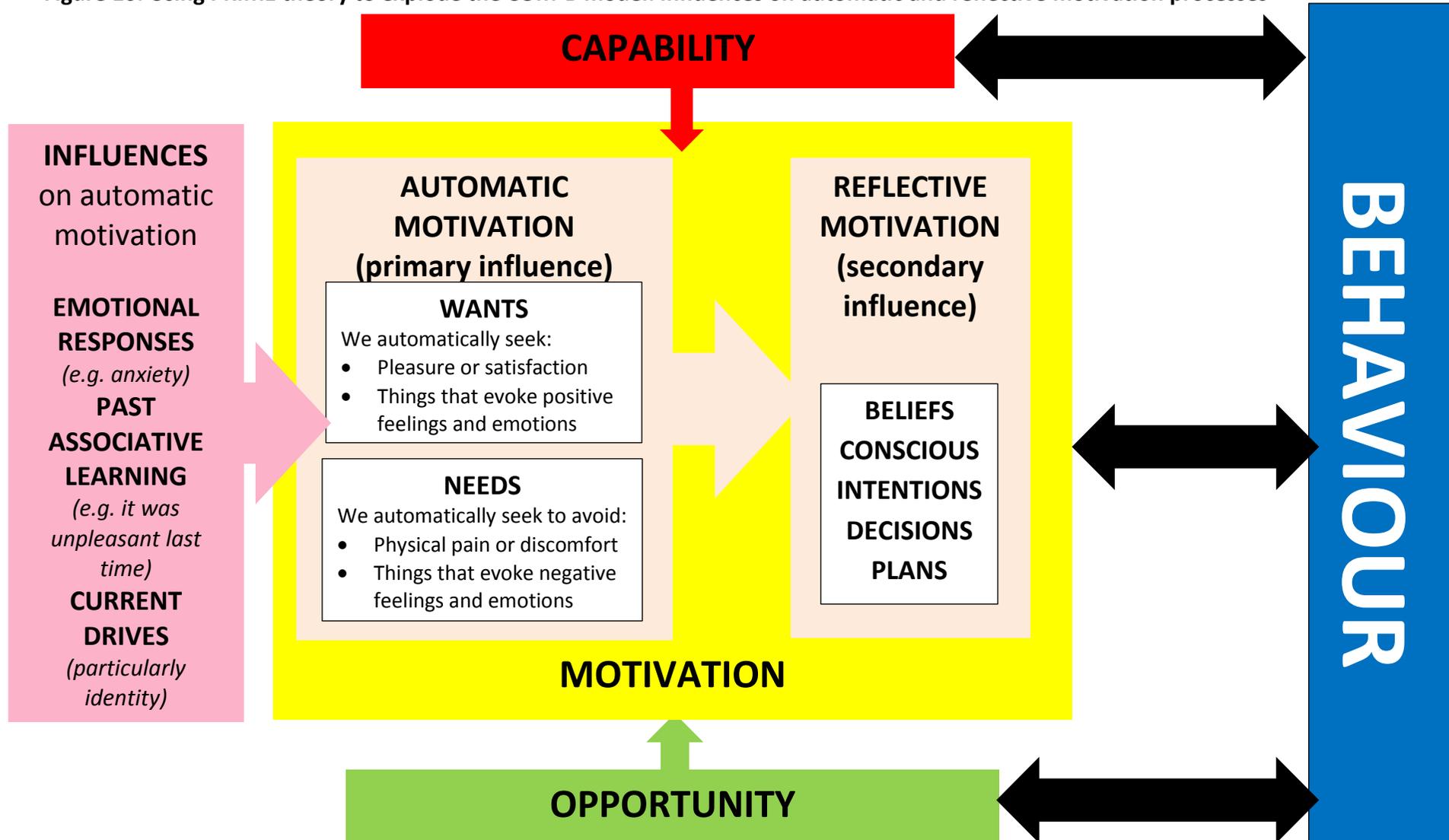
9.6) How do CHW person and role characteristics affect client motivation to engage?

As stated previously, my analysis of client engagement conceptualises 'engagement' as a 'behaviour', and applies the COM-B (capability, opportunity, motivation) to understand the influences on clients' engagement with CHWs, other agencies, and healthy ideas and behaviours. Here I focus on motivation, which is rather more complex than capability and opportunity.

The conceptualisation of motivation in the COM-B model originates from West's PRIME (Plans, Responses, Impulses/inhibition, Motives and Evaluations) theory.(247) PRIME originated in addiction psychology, but is increasingly being advocated by leaders in the

field of health psychology who suggest it offers a step change in our conceptualisation of behaviour change interventions.(246) While many behaviour change approaches have traditionally focused on influencing individuals' reasoning and decision-making behaviour, PRIME theory postulates two separate influences: the reflective (conscious) and automatic (unconscious).(249) The theory states that our motivation to engage in a behaviour is primarily influenced by automatic, unconscious processes which operate to serve our immediate desire for pleasure or relief; we do what makes us feel good. Secondary, 'reflective' processes such as our beliefs and intentions can only influence our behaviour if the automatic processes allow. Motivation is also under the influence of the capability and opportunity-related influences within the COM-B framework. This is illustrated in the context of the wider COM-B theory (Figure 16).

Figure 16: Using PRIME theory to explode the COM-B model: influences on automatic and reflective motivation processes



Automatic processes are influenced by our emotional responses to stimuli (for example fear), past associative learning (for example that the behaviour was unpleasant before), and by our current drives (in particular our identity) – shaded in pink in figure 16. These processes are immediate, and do not involve evaluation of alternative options or the consequences of behaviour. For example, we may automatically (i.e. unconsciously) avoid engaging with a CHW if it makes us feel anxious. In this analysis of CHW client behaviour, I have found that the automatic processes influencing motivation can usefully be conceptualised using the transcultural communications theory, Anxiety Uncertainty Management theory – of which more later, once the automatic and reflective motivation processes have been more thoroughly examined.

The second group of reflective, conscious processes that influence motivation include activities such as active goal setting and decision making. For example we may weigh the benefits and risks of smoking and decide that we wish to stop. However, our conscious evaluations of situations and intentions to act can only determine our behaviour if our subconscious processing permits it. For example, a client may have consciously evaluated the benefits of attending a M&T group, and may intend to go, but her immediate need to avoid the anxiety caused by meeting unfamiliar people may prevent her from going. Similarly, a woman living in a population with low breastfeeding prevalence may have evaluated the benefits of breastfeeding, and intend to breastfeed, but her immediate need to maintain her identity with her 'peers', and avoid social deviance may prevent her from doing so.

Motivations compete with one another (for example a client needs to be at work at her scheduled appointment time), and often individuals are subject to a vast array of complex, interacting and competing motivations to act that are highly dependent on the individual subject. West describes the processes that form our motivation as “*chaotic*”, and often unpredictable. While this may be the case, the accounts in this research suggest that there are some determinants of motivation that may be influenced by designing CHW services with particular person and role characteristics.

9.6.1) Reflective processes influencing motivation to engage with CHWs

The study data suggested that clients make conscious assessments about their situation that influence their motivation to engage with CHWs. Engagement with workers was reported to be influenced according to three factors, presented in Box 12.

Box 12: Reflective influences on client engagement with CHWs

- Clients believed that they were at risk of a negative outcome if they did not engage
- Clients believed that that the CHW service can support them; i.e. that the services and workers are credible
- Clients believed that the CHW service posed a risk of harm to them. This influence is distinct from the negative outcome of non-engagement, the first bullet point. In the first, non-engagement (e.g. not attending appointments with a POW) may have a negative outcome (a black mark from the social worker), making a woman more likely to attend. In the latter, the fear of what a CHW might do (e.g. instigate removal of children if she sees what is going on in the home) may make a woman less likely to attend.

9.6.1.1) Client perception of risk to not engaging with CHW

Client perception of personal risk (or a 'problem needing to be addressed') was multifaceted. The CHW services studied addressed a wide range of risks, and often the same client would have more than one issue that could be tackled.

Where engagement required clients to seek out the service, as was the case in Slimming World and Peer Support, clients clearly perceived an issue that required assistance.

However, in the Slimming World service, a minority of clients were referred by a health professional via an NHS voucher scheme. Workers reported how some of their voucher clients appeared to be attending because they had been instructed to do so, rather than because they perceived a need, which had a negative impact on engagement. This suggests that the approach to referral may have an impact on motivation for some clients (though not all)

I've had some fantastic successes with vouchers. One person, she's finished her vouchers and now she pays herself. But I've also had some where they've been once or twice and haven't been again. It's very hit and miss really. Sometimes they've said 'My doctor's told me I've got to lose weight.' And I always think 'Oh, okay.'

Slimming World Consultant 2

There were also examples of clients whose perception of risk did not match that of their worker. The POW Service provided several descriptions of this, where women were happy to engage to obtain instrumental support in accessing housing and benefits payments, but they were reluctant to participate in emotional or appraisal support that might have wider impacts on their wellbeing and behaviour. In some cases, this was reported to be related to the fact that women were already receiving social support from elsewhere, and did not perceive a need for further help. However, there were also examples where workers felt

they had been unable to work with their client to enable them to understand and articulate all their needs.

“But she disengaged with me once she'd got a flat, I never heard again at all from her. I went to visit her at the refuge and chasing up benefits with her, for her, she knew everything she was entitled ... and that was it, I never heard again. So that's...that's a weird...a tough one you know 'cos you think, you know, it was that...just all about getting re-housed you know but you can't assume that ever or make that judgement, you've gotta just go with it.”

POW 5

Overall, person and role characteristics were not reported to influence whether clients saw a risk to not working with CHWs, though of course, this may occur, and simply was not described in this study. However, workers did describe influencing clients' willingness to engage by being seen as credible supporters, and by addressing clients' emotional responses to engagement.

9.6.1.2) Clients believed that that the CHW service can support them; i.e. that the services and workers are 'credible'

The study data suggested that it was crucial that clients believed the service could help in order for them to engage effectively with the service. Here, a core concept that arose was that of 'credibility'. In other words, clients had to perceive that the worker knew what they were talking about, understood them, and had the skills and resources to deliver the help that they needed. These perceptions were influenced by a range of CHW person and role characteristics. The word 'trust' was frequently used to refer to this concept of credibility, in that workers were trusted sources of help who were perceived as being able to provide effective support. This is distinct from another use of 'trust' in the data; the term was also applied in the context of anxiety and safety, in that some clients were reported not to trust workers who posed a possible threat. This second application of 'trust' is discussed in the

subsequent section which explores automatic, subconscious, emotional responses to workers.

Beliefs about credibility, and subsequent decisions to engage, appeared to be determined through client evaluation of three possible sources of information (Box 13).

Box 13: Sources of information that appear to influence client beliefs about credibility of CHWs

- Community reputation (others perceive the service to be credible)
- Initial impressions (CHW discloses characteristics associated with credibility)
- Results (CHW provides evidence of credibility by delivering effective support)

Influences on client impressions of credibility: 'community' reputation

There were a handful of accounts in the data where client engagement had been influenced by a positive reputation of the service in the local population. It could be posited that a good local reputation lends credibility to a service. Where there were reports of this phenomenon, it was suggested that previous clients who had positive experiences had recommended services. It could be hypothesised that CHW's person and role characteristics influenced the client experience, but it would be necessary to explore this through further work with clients. However, the following quote indicates that in the POW Service at least, the role characteristics ('what they do') impact on individuals encouraging one another to engage.

"People as well, once they hear what they do they're referring their sisters and their friends and so and so's pregnant so you get a lot of referrals."

POW 2

In the M&T Service, the Children's Centre *venue* was described as conferring credibility on any activities delivered there. The venue was reported to be valued and trusted by local parents, increasing the likelihood that they would engage with services provided there.

Engagement difficulties were reported by POWs in relation to professional workers communicating an inaccurate reputation. Clients had been informed that POWs were able to secure accommodation for women who were homeless, which was not the case. This resulted in POWs failing to meet client expectations of the Service. In the Peer Support service, reputation was affected by negative perceptions of worker *values* in the wider community. Here, a Peer Support Manager relates how they aim to support women's choices, but that they have a reputation with some as the 'breastapo', a common term used to portray breastfeeding supporters and activists as coercive and staunchly pro-breastfeeding. If the service has a reputation for coercion and not supporting choice, however unfounded, women who are seeking a supportive, client-focused service may not engage with the Peer Supporters.

"We're there as well to say 'Bottle feeding's okay, you know, if this isn't for you then we can support you with bottle feeding as well.' We train [the Peers] in that respect, that we're not the breastfeeding Gestapo as we're often called. We're there to support women in their choices."
Peer Support Manager 2

Influences on client impressions of credibility: initial impressions

Usually, accounts of first impressions and credibility involved *similarity between worker and client*. This similarity was described as resulting in the client perceiving that the worker will have the *knowledge*, and *empathy* to understand their situation. Some of these characteristics were passively disclosed to clients. For example, speaking in a 'community'

language disclosed *skills*, physical attributes might indicate *ethnicity*, and accent might indicate *socioeconomic status* or *locality* of residence. Other characteristics were actively disclosed. For example, workers reported actively managing their appearance to indicate their similarity, and appear more credible, by avoiding smart clothes, or not looking too polished.

“All those little things you have to be really careful of because you don't want to alienate them in any way... And I think you just have to be really careful to not...because you don't want to alienate anybody, because you don't want them one, to then not use the service. You don't want, two, for them to...bad press is bad press, isn't it? Even if it's just someone saying, 'They've got no idea. They've all got their faces on,' and stuff. So you have to be really careful. So you just go like you would go normally. I do the afternoons, so I'm always...even though I get ready in the morning, I'm always looking a bit messy by the time I get there.”

Peer Supporter 5

Conversely, lack of similarity was reported to potentially result in a loss of worker credibility:

“I don't know if I'd have been able to have support from, say, an 18 year old, for no other reason than age, which is wrong, but that's how probably I would have felt like, 'How would you know about things?' I feel embarrassed to admit that really, because it shouldn't make a difference. If they've had the training they know what they're taking about and if they are, or have recently been, breastfeeding, then they should be the right people to talk to you. But I don't know if I would have - I suppose it's making the connection. If it's not somebody I could see myself being friends with, then perhaps you just don't feel as comfortable talking to them about things, including breastfeeding... I don't know what it's like to be 18 and have a baby and I don't think they would really listen to me as much as if it was somebody from their own - someone who had shared experiences... I would like my answer to be different to that because I feel like it shouldn't make a difference, but I think it does, actually.”

Client and Peer Supporter 7, older mother

A lack of recent experience was also related to lower credibility, but only in the Peer Support Service. Peer Supporters described how breastfeeding is a complex, personal experience with physical, psychological and social impacts that were difficult to remember in detail in the long-term. Breastfeeding practice and parenting culture was also reported

to change often, resulting in advice from women who had no recent experience being less relevant. Both of these issues are illustrated by the quote below.

I: *“Is it important, do you think, that it’s a recent thing?”*

IV: *“I think a little bit actually, yes. I think you can understand and relate to it and you forget so easily. God, I haven’t breastfed [my son] for a long time, long, long, time now. So, you do lose the knack and you lose the memories of the sleepless nights. I mean, I know what it was like but I do think you lose maybe the complete understanding because you’re having a good night’s sleep every day and you forget the feeding sensation. It’s always there but it’s not in your face every day on your boob, you know. You’re out and about and you need lunch or whatever and you think ‘oh, I need to feed my baby ‘and all the pressures of who’s watching and all the kind of thing; you forget all that. I still think it’s relevant and my mum breastfed but if you speak to my mum ‘oh, I can’t remember, ooh God, I don’t know’ and also ‘in my day I did it like this.’ ((Laughs)). I remember my mum saying [Kate], he doesn’t need any more feeding, you fed him two hours ago now’ whereas now I say something completely different.”*

Peer Supporter 3

Many of the Peers Supporters who had not breastfed for a number of years stated how they were concerned that they were beginning to forget what it was really like, although it was suggested that extra experience gained through working as a Peer Supporter provided expertise that may offset the receding memory of the lived experience. The managers of the service suggested that Peer Support was not intended to be a long-term role for a woman, and they accepted the naturally occurring loss and recruitment of volunteers as part of the programme. They also stated how they had observed the increased credibility of women who were still breastfeeding, or had only stopped very recently. None of the other services raised the issue of recency, and this may be because breastfeeding is a relatively short-term experience compared with healthy eating (M&T) or weight reduction (233). It could be due to the lower level of expertise required by Peer Supporters that favours shared experience over training and work experience. However, it may be that

other services simply had not recognised that workers with recent shared experience were more credible to their clients.

While *Similarity* in the form of *non-professional* status was reported to be advantageous in the services sampled, there were situations where this was not the case. It was suggested that some clients at breastfeeding cafés sought out the midwife who led the service, as she was perceived as an expert. This behaviour was reported to be more common where clients had young, vulnerable infants, and where problems were perceived to be of a more clinical or acute nature. *Volunteer* status may have an additive effect, as the following quote suggests.

IV: *“So it was talking to other ladies that were breastfeeding as well that helps to support you and also having the midwife there, just having the reassurance I think of the midwife. I think you do like that, at the beginning especially to have someone who has got a title. But then as they get older and they're bigger and stronger, you're easily reassured by people who are in the same experience. To say ‘Oh that happens to me as well,’ but I think with a new born you're a bit like I only want the information from the midwife.”*

I: *“That's interesting.”*

IV: *“And I see that when people come into the breastfeeding cafe actually now. That sometimes if [the midwife]'s not there and people come in and they've got a very, very young baby, and they'll say ‘Is [the midwife] here?’ And you say ‘She's not here this week but there's some volunteers,’ you can see their face drop as if like ‘Oh...bugger.’”*

Peer Supporter 6

In other situations however, Peer Supporters related how the disclosure of their *volunteer status* lent credibility, in that clients compared them with paid workers who ‘had to be there’

Workers also reported informing clients about their role characteristics, as they were unaware or confused about the CHW remit. POWs in particular gave accounts of spending

time discussing with clients what they could, and could not do, including their *client-focused* and *empowerment* approach, and the *core tasks* they could undertake as part of their role. This was reported to raise POWs' credibility as they were more likely to be perceived as responding to the client's self-defined needs.

Influences on client impressions of credibility: credible support behaviour that delivers results

Clients were frequently reported to perceive workers as more or less credible as a result of their disclosed characteristics, and often this was related to the similarity between worker and client. However, there were many accounts where participants suggested that similarity was not essential, provided the worker could demonstrate credibility through the effectiveness of their support, in terms of behaviour being deemed appropriate, and the desired outcomes being achieved.

"I don't think it [shared locality] matters, I think once the client knows that you know what you're talking about and you are making a difference each week or each time you meet, you're one step closer to solving their problem. I don't think it matters, I think the trust issue is, the issue here is, can this person help me, yes or no? If somebody can't help you, do you need that person, no you don't. If somebody can help and they show that they can help and they're doing things then you want to work with them because they're actually doing something."

POW 2

Arguably, the *continuity* and *time* available to many CHWs affords them a longer period over which to demonstrate credibility, and this perhaps gives these workers an advantage in that they do not have to 'prove themselves' immediately, and can build credibility incrementally, as evidenced by the following quotes.

"One lady she got her money, carpeted up the whole house...So when you give them advice they're happy to take it from you because you've got that trusting thing, 'Everything you've done for me so far has worked out so I can trust you, anything you said you were going to

do, you've done. You've changed my situation for me when you first come to how it is now so I can trust you.”

POW 2

“I didn't get home until about 10 o'clock, by the time I got home and got all my stuff, but that's how I work and if they need me... I'm off out and I do what I need to do, while I'm supporting that client. I think that's my job, to support them. I might go out of my way to do it, but also I know that at least - I think that's how you bond with the client. 'She said she was going to do this. She's done it. She's not messed me about,' and I think that's the trust part of it as well with them. They know that if anything does crop up during the pregnancy, something that they might not have told - there's more chance of her telling me something's up if she knows she can trust you as well.”

POW 3

Study participants widely reported how the effectiveness of their actions was seen to have a subsequent impact on client perceptions of workers. For example, while a worker from a different ethnic background may initially be perceived as not understanding the client, and therefore not credible, she may be able to change this attitude by providing appropriate support, evidencing that she has good *knowledge* of the client's culture and situation.

However, evidencing credibility through supportive actions may not be sufficient to overcome clients' initial impressions. The following account relates how, in some families, POWs were still perceived as not understanding despite the worker's sense that the support was good.

“Somebody coming in, like myself, who I know a lot more than I used to, but sometimes they'll say, 'You don't understand.' So it just all depends on the family, really. Some may accept me more than somebody who is of the same language and religion and that kind of thing. It really does depend on the family, and trying to get that right, really. Sometimes we see it; sometimes we just don't. You think you're doing a really good thing and then they just don't engage.”

POW 8, speaking about working with a family from a different ethnic group

It is possible that the worker does not in fact understand, and that this highlights the relative inadequacy of population knowledge that is acquired through learning, rather than experience. It is also possible that the worker was providing appropriate support, but that

this was not sufficient to overcome the client's perceived cultural barrier. In some cases, workers from dissimilar backgrounds to clients may never be viewed as credible sources of support.

9.6.1.3) Clients believed that the CHW service posed a risk of harm to them

A discrete phenomenon emerged in the POW service where a number of POWs gave accounts of how the target population's knowledge of professionals' statutory powers made clients reluctant to engage with them. Specifically, social workers and midwives were known to have the power to implement child protection procedures which might result in the removal of children from parents. This perceived risk of child removal (however remote) caused clients to avoid contact and disclosure to professionals unless absolutely necessary. In order to facilitate engagement with some clients, POWs had to make it clear that they did not have the same powers or purpose as midwives or social workers (though at the same time POWs were clear that they had a duty to report any concerns, and that all clients were made aware of this). This observation is not a new phenomenon(250) but demonstrates an advantage to using non-professional workers when delivering social support to vulnerable parents, and the challenge that professionals with statutory powers face in trying to delivering similar support effectively. In the context of the services studied in this thesis, it was not possible to establish how much of this avoidance of professionals was due to rational risk-management, as described here, and to what degree emotional responses (fear) and past associative learning (for example previous removal of children by social workers) played a part, as these issues tended to overlap.

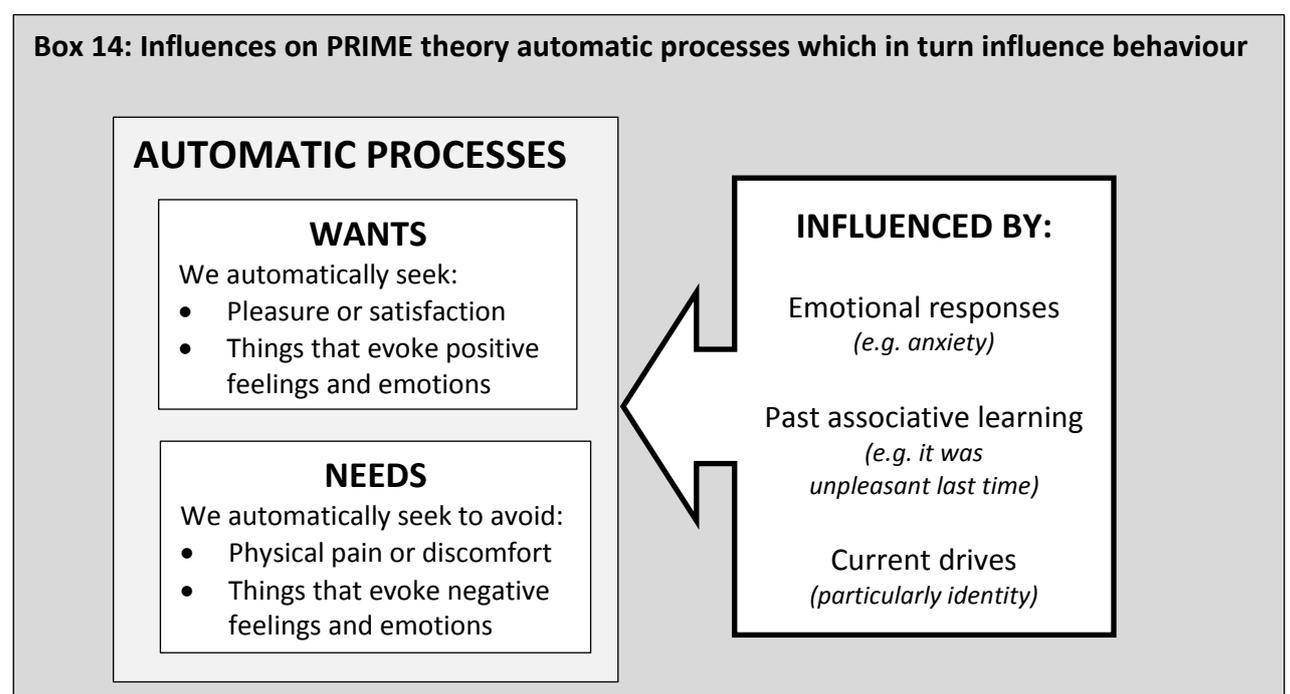
9.6.3.3) Clients believed that the healthy ideas or behaviours being proposed posed a risk of harm to them

There were no accounts of clients being disinclined to engage in ideas or behaviours due to a perceived risk of harm, or of CHWs working to address it (except for the 'healthy behaviour' of engaging with other agencies in the POW service, discussed earlier).

9.6.4) Automatic processes impacting on motivation to engage with CHWs

The PRIME theory of motivation states that automatic processes determine the way in which humans act in pursuit of their immediate wants and needs in that moment (regardless of what we believe to be right, or what we intend to do). As stated in the earlier summary of PRIME theory, automatic processes are influenced by our emotional responses to stimuli (for example anxiety), past associative learning (for example that the behaviour was unpleasant before), and by our current drives (in particular our identity).

The influences on automatic processes are repeated in box 14 for reference.



Wants and needs, and our motivation to engage, are said to be driven by our mental images of what engagement would involve. The following pages use the empirical data to explore these influences upon CHW client wants and needs as follows:

- Emotional responses, with a particular focus on anxiety, using Anxiety Uncertainty Management theory (section 9.6.4.1).
- Identity (section 9.6.4.2)
- Past associative learning (section 9.6.4.3)

9.6.4.1) Emotional responses, wants and needs, and client engagement

9.6.4.1.1) Client 'wants', emotional responses, and engagement

Participants in this study related how they were able to provide pleasure, or arouse positive emotional responses in their clients. Sometimes participants related this directly to subsequent increased engagement by the client, though at other times this connection was not made by the research subjects

Appropriate needs assessment and social support provision will improve a service's chances of addressing client wants, so bringing pleasure through engagement. For example, in the quote below the M&T Worker relates how she knows that there is a need to make informational support fun, in order to engage clients.

"We want it to be educational but in a very fun sort of way because once you've got people on board, if you tend to talk at them about or something, or lecture them, they switch off."

M&T Worker 1

The following account similarly speaks about the importance of providing an enjoyable experience, and relates it to the personal qualities of the worker.

“Definitely need to be positive, inspiring, uplifting, warm, welcoming. Somebody easy to talk to. All of those things really. Non judgemental. Said that loads. All of those. Somebody that you would want to spend time with because trying to get somebody's commitment to spending an hour a week with you is quite a task. So they've got to be fun, and not take themselves too seriously.”

Slimming World Consultant 1

The positive outcomes of support were also described as bringing pleasure . For example, a POW client was described as “*chuffed,*” or pleased, following her POW arranging for her home to be repaired. Chapter 6 outlines in detail the various person and role characteristics that enable workers to appropriately assess need, provide support and therefore address client wants, and they are not repeated here.

While the intended process, and outcomes of social support may bring pleasure, the engagement in itself may bring other rewards that make a client feel good, even if this was not a conscious aim of the service. The social contact that engagement afforded was described as improving clients' mood, and arguably could be influenced by *worker-client similarity*, friendly *disposition*, the 'community'-based *location*, the use of 'community' *venues*, *group settings*, and the contact *time* available to the client. Also, the process of engaging was described as evoking positive feelings by improving some client's self-esteem (even where this was not a recognised problem or a deliberate support activity).

“I looked forward to going to the group, like on a Tuesday morning I'd make sure we were ready and it was nice to go out and like in the first few weeks I did feel like...quite a sense of achievement in going there and getting there, even if it was raining and you know not being put off, you know, 'cos you can easily just stay in and watch TV or potter around and feel a bit alienated so you just felt, I felt quite good going out and having a chat and seeing how they were.”

*Peer Supporter 2,
speaking about her prior experiences as a client*

It must be said, however, that client wants and desires were not a prominent feature of discussions in the research data. On the whole, there was more debate in the interviews about the importance of meeting client needs. This is unsurprising, as services are, on the whole, set up to address an unmet need rather than bring pleasure or satisfaction, though perhaps it is implicit that the latter will result from meeting such needs. This does mean, though, that it is likely that there is more scope for designing services that bring pleasurable rewards for users. If engagement is perceived as a problem, then enjoyable incentives may be a route to increased uptake. Indeed, this is something that is being explored elsewhere in the health promotion literature, for example in ‘nudge’ theory, where individuals are provided with incentives in order to adopt positive behaviours.(251, 252) It is notable that the one service involving a commercial service recognised that a large part of their activities need to involve praising clients and rewarding them for adhering to the plan and losing weight. Slimming World enhances this by celebrating specific weight loss milestones with groups, and awarding stickers.

“Definitely what really helped for me to lose weight, the drive behind the praise, it sounds really insignificant, but we give awards for every half stone that you lose. And I was putting them on the back of my book ...if you get slimmer of the week you get an award, and you get praise in group. So for me the praise thing and the recognition of doing well...So definitely it was the praise, the recognition, that you'd changed something, you'd done really well. It was the sense of achievement.”

Slimming World Consultant 1

9.6.4.1.2) Client ‘needs’, emotional responses, and engagement

The PRIME theory states that individuals have a subconscious need to avoid immediate pain or discomfort. The need to avoid psychological discomfort (i.e. a negative emotional response) was a prominent feature in the services sampled. In particular, CHWs were

frequently described as evoking less anxiety and fear in clients compared with traditional professionals. This was perceived as meaning that clients were less inclined to avoid engaging with CHWs, meaning that better worker-client relationships could be established.

The relative lack of anxiety in response to CHWs was often related to *similarities* between workers and clients, and an anxiety about engaging with professionals, or individuals from outside of the 'community'. However, the accounts in this research also provided insights into how clients' anxieties might be addressed in the absence of client-worker similarity, via other CHW person and role characteristics. In understanding these data I have found the communications field of social psychology theory – specifically the Anxiety/Uncertainty Management (AUM) theory - to be useful.

AUM theory is not a prominent feature of the health literature, and I could find no examples of its use in the CHW literature. However, I believe it to be an illuminating tool for exploring the concept of CHW engagement given the centrality of client-worker communication to the relationship.

Bill Gudykunst developed AUM Theory to explore the communication between individuals from different nations and ethnic backgrounds, but he also applied it to broader definitions of 'culture'.(245) In this sense it is used in this thesis to explore communication across socioeconomic, generational, gender, non-professional/professional and experiential divides. Gudykunst posits that when strangers meet, they experience a negative emotional response, namely anxiety and uncertainty. In other words, individuals "*don't feel secure, and they aren't sure how to behave.*"(245) When strangers from different social or cultural

groups encounter one another (as opposed to individuals from the same group), these feelings are said to be more pronounced, with a tendency to generalise the expected behaviours of cultural groups (for example assuming that individuals of Pakistani origin will all behave in a certain way).

Gudykunst(244, 245) stated that for communication (or in the CHW context, engagement) to be effective, there is an optimum level of anxiety and uncertainty on both sides of the relationship, that lies within minimum and maximum anxiety and uncertainty thresholds. A certain degree of anxiety is deemed helpful in that it prompts us to self-monitor our communication (for example by being anxious not to appear discriminatory), and Gudykunst defines this as the minimum threshold of anxiety. However, there is also a maximum threshold for anxiety, which generates a sense of being unsafe or insecure. When this is reached, individuals are stated to be psychologically incapacitated, unable to concentrate, and to either disengage completely, or rely on stereotypical assumptions about the individual they are interacting with.

Uncertainty also has positive and negative aspects. Some uncertainty (i.e. inability to predict how the other will behave) is thought to be required in order to stimulate curiosity and prevent overconfidence. Without uncertainty we may become bored and assume that we can predict behaviour, and fail to properly engage with our communication partner. However, too much uncertainty can result in individuals perceiving that continued interaction is not worthwhile, as they assume that they will never be able to predict how the other will behave.

A further important aspect of AUM theory concerns the need for 'mindful' communication when communicating with strangers. Where individuals are from the same social group, it has been suggested that communication and behaviour follows predictable 'scripts'. However, AUM theory posits that when individuals are from different groups, they need to be particularly 'mindful' in communication and avoid relying on their own frame of reference to interpret the situation. Essentially, mindful communication is a more measured, conscious process than everyday communication with familiar others.

Gudykunst et al postulated a number of axioms, representing influences on the level of anxiety and uncertainty that individuals experience when they interact with strangers.(244, 245) Some concern the attributes of the individual (in this context the client), others concern the attributes of the messenger or the environment (the CHW and service), and others relate to characteristics of the 'community' to which the individual (client) belongs. I have adapted Gudykunst's original axioms have been adapted to apply to the CHW context.

The original and adapted axioms are presented as follows:

- Original axioms are presented in Table 12
- Axioms adapted to the CHW context are presented in Table 13

Table 12: Gudykunst's axioms which influence anxiety and uncertainty levels in stranger interactions(244) (key concepts underlined)

1	An increase in the degree to which our <u>social identities guide our interactions</u> with strangers will produce a decrease in our anxiety and an increase in our confidence in predicting their behavior.
2	An increase in the degree to which <u>our personal identities guide our interactions</u> with strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
3	An increase in our <u>self-esteem</u> when interacting with strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
4	An increase in our <u>ingroup-specific collective self-esteem</u> when interacting with strangers from outgroups based on the specific ingroup will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
5	An increase in <u>perceived threats to our social identities</u> when interacting with strangers will produce an increase in our anxiety and a decrease in our confidence in predicting their behavior.
6	An increase in our <u>need for group inclusion</u> when interacting with strangers will produce an increase in our anxiety.
7	An increase in our <u>need to sustain our self-conceptions</u> when interacting with strangers will produce an increase in our anxiety.
8	An increase in the <u>degree to which strangers confirm our self-conceptions</u> will produce a decrease in our anxiety.
9	An increase in our <u>confidence in our ability to predict strangers' behavior</u> will produce a decrease in our anxiety; a decrease in our anxiety will produce an increase in our confidence in predicting strangers' behavior.
10	An increase in our <u>ability to process information complexity</u> about strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
11	An increase in the <u>rigidity of our attitudes toward strangers</u> will produce an increase in our anxiety and a decrease in our ability to predict their behavior accurately.
12	An increase in our <u>uncertainty orientation</u> will produce an increase in our ability to predict strangers' behavior accurately.
13	An increase in our <u>tolerance for ambiguity</u> will produce a decrease in our anxiety.
14	An increase in our ability to <u>empathize</u> with strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
15	An increase in the degree to which strangers <u>converge toward</u> us will produce a decrease in our anxiety and an increase in our confidence in predicting their behavior.
16	An increase in our <u>understanding of similarities and differences</u> between our groups and strangers' groups will produce a decrease in our anxiety and an increase in our ability to accurately predict their behavior.
17	An increase in the <u>personal similarities we perceive</u> between ourselves and strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
18	An increase in our <u>ability to categorize strangers in the same categories they categorize themselves</u> will produce an increase in our ability to predict their behavior accurately.
19	An increase in the <u>variability we perceive in strangers' groups</u> will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
20	An increase in <u>perceiving that we share superordinate ingroup identities</u> with strangers will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately
21	An increase in our <u>positive expectations for strangers' behavior</u> will produce a decrease in our anxiety and an increase in our confidence in predicting their behavior
22	An increase in our <u>ability to suspend our negative expectations for strangers' behavior</u> when they are activated will produce a decrease in our anxiety and an increase in our ability to predict their behavior accurately.
23	An increase in the <u>cooperative structure of the tasks</u> on which we work with strangers will produce a decrease in our anxiety and an increase in our confidence in predicting their behavior.
24	An increase in the <u>normative and institutional support for communicating</u> with strangers will produce a decrease in our anxiety and an increase in our confidence in predicting their behavior.

Table 12 cont'd: Gudykunst's axioms which influence anxiety and uncertainty	
25	An increase in the <u>percentage of our ingroup members present in a situation</u> will produce a decrease in our anxiety.
26	An increase in the <u>power we perceive that we have</u> over strangers will produce a decrease in our anxiety and an increase in the accuracy of our predictions of their behaviour.
27	An increase in our <u>attraction to strangers</u> will produce a decrease in our anxiety and an increase in our confidence in predicting their behaviour
28	An increase in the <u>quantity and quality of our contact</u> with strangers and members of their groups will produce a decrease in our anxiety and an increase in our ability to predict their behaviour accurately.
29	An increase in our <u>interdependence with strangers</u> will produce a decrease in our anxiety and an increase in our ability to predict their behaviour accurately.
30	An increase in <u>the intimacy of our relationships</u> will produce a decrease in our anxiety and an increase in our ability to predict their behaviour accurately.
31	An increase in the <u>networks we share</u> with strangers will produce a decrease in our anxiety and an increase in our ability to accurately predict their behaviour.
32	An increase in our <u>ability to maintain our own and strangers' dignity</u> in our interactions with them will produce a decrease in our anxiety.
33	An increase in our <u>respect</u> for strangers will produce a decrease in our anxiety
34	An increase in our <u>moral inclusiveness</u> toward strangers will produce a decrease in our anxiety.
35	An increase in our <u>ability to describe strangers' behaviour</u> will produce an increase in our ability to predict their behaviour accurately.
36	An increase in our <u>knowledge of strangers' languages and/or dialects</u> will produce a decrease in our anxiety and an increase in our ability to predict their behaviour accurately.
37	An increase in our <u>mindfulness</u> of the process of our communication with the strangers will produce an increase in our ability to manage our anxiety and an increase in our ability to manage our uncertainty.
38	An increase in <u>mindfully recognizing and correcting pragmatic errors that occur in our conversations</u> with strangers facilitates negotiating with strangers which will produce an increase in the effectiveness of our communication.
39	An increase in our <u>ability to manage our anxiety about interacting with strangers</u> and an increase in the accuracy of our predictions and explanations regarding their behaviour will produce an increase in the effectiveness of our communication.
40	An increase in <u>cultural collectivism</u> will produce an increase in the sharpness with which the stranger-in-group distinction is drawn.
41	An increase in <u>cultural uncertainty avoidance</u> will produce an increase in in-group members' xenophobia about interacting with strangers.
42	An increase in <u>cultural masculinity</u> will produce an increase in the sharpness of the stranger-in-group distinction drawn for opposite-sex relationships
43	An increase in <u>cultural power distance</u> will produce an increase in the sharpness of the stranger-in-group distinction drawn for relationships involving unequal statuses.
44	An increase in <u>cultural uncertainty avoidance</u> will produce an increase in the sharpness of the stranger-in-group distinction drawn based on age.
45	An increase in <u>cultural individualism</u> will produce an increase in in-group members' use of person-based information to manage uncertainty with strangers; an increase in cultural collectivism will produce an increase in in-group members' use of group-based and situation-based information to manage uncertainty with strangers.
46	When there are <u>clear rules for stranger-in-group interactions</u> , an increase in cultural uncertainty avoidance will produce a decrease in the anxiety and uncertainty experienced communicating with strangers. If no clear rules for stranger-in-group interactions, an increase in cultural uncertainty avoidance produces an increase in the anxiety and uncertainty experienced.
47	An increase in <u>cultural individualism</u> will produce an increase in the focus on cognitive understanding to communicate effectively with strangers. An increase in cultural collectivism will produce an increase in the focus on maintaining good relations between communicators to communicate effectively.

Table 13: Traits which influence anxiety and uncertainty in communication,
 adapted from Gudykunst et al(244) , *open to influence by CHW characteristics

CHW/Service traits that reduce anxiety and uncertainty	
CHW shows respect	*
CHW maintains dignity	*
CHW delivers quantity and quality of contact	*
CHW develops reciprocity	*
CHW discloses personal information (develops intimacy)	*
CHW shares networks with the client	*
CHW undertakes cooperative tasks	*
CHW has 'community' or institutional support	*
CHW support involves a group of similar others	*
CHW has similar relative power to the client	*
CHW is perceived as similar to the client	*
CHW has low unpredictability and variability	*
CHW has common ground despite apparent differences	*
CHW 'converges' towards the client (reaches out)	*
CHW confirms client's self-conceptions	*
CHW has knowledge of client's language or dialect	*
CHW communicates mindfully	*
Client traits that influence anxiety and uncertainty (direction of influence)	
Respects the CHW (reduces)	
Is attracted to the CHW (reduces)	*
Understands/has knowledge of the CHW (reduces)	*
Has positive expectations of CHW behaviour	*
Is able to suspend negative perceptions of CHW (reduces)	
Is empathic (reduces)	
Tolerates ambiguity (reduces)	
Can process information (reduces)	
Is confident in own ability to predict strangers' behaviour (reduces)	
Has positive self esteem (reduces)	*
Is able to describe others' behaviour (reduces)	
Communicates mindfully (reduces)	
Is able to manage anxiety about interactions (reduces)	
Needs group inclusion (increases)	*
Needs to sustain self-concept (increases)	*
Has rigid attitudes to others (increases)	
Social and personal identity guides interactions (increases)	
Perceives a threat to social identity if engages (increases)	*
Client group ('community') traits that influence anxiety and uncertainty	
Low self esteem (increases)	
Collectivism (reduces)	
Strong preference for uncertainty avoidance (increases)	
Culture of non-engagement with others (increases)	
Group norms (increase anxiety where engagement challenges norms)	
Group norms around masculinity, power and engagement with others	

The participants in this research described how CHW person and role characteristics reduced uncertainty and anxiety in their clients. They frequently gave accounts of being trusted, or safe. They also gave accounts of a range of engagement activities that resulted in a more favourable emotional response to CHWs by clients, including increased disclosure of concerns or risks, improved repeat attendance and increased likelihood to raise questions. The following pages present the person and role characteristics that were deemed to be important to addressing anxiety and uncertainty. These person and role characteristics are discussed in the context of AUM theory below. Where the theory's traits are mentioned in the text, they are underlined for ease of recognition.

How did CHW person characteristics influence anxiety and uncertainty about engaging with CHWs?

It is sensible to begin this discussion of person characteristics by re-visiting the concept of *similarity*. This is for several reasons. First, AUM theory is concerned with communication between different groups, as opposed to similar individuals, so where workers and clients come from the same group AUM may not apply. Second, similarity was the characteristic which participants most frequently cited in conjunction with lower anxiety and increased trust (in the safety, rather than credibility context). Also, while there is scant CHW literature in this area, there has been a suggestion that CHWs are associated with increased trust and reduced anxiety compared with professional "*outsiders*." (138) As noted in Chapter 6, similarity itself is associated with other CHW person and role characteristics, and on the following pages they are again highlighted in italics throughout the text.

AUM theory applies to encounters between individuals who are from different groups.

There are two strategies available to services here:

- Deploy workers who are not outsiders, and thus share 'scripts' and do not cause anxiety or uncertainty
- Deploy workers who are outsiders, but whom display some of the traits that mitigate anxiety and uncertainty according to AUM theory

In this research, similarity has been defined according to shared demographic, experiential, and non-professional identity, but these broad categories may not confer sufficient similarity to result in shared group identity between client and worker. That workers were previously unknown to clients, and were in formal roles in organisations, as opposed to natural social contacts of clients, arguably meant that they were automatically perceived as 'an outsider', resulting in dissimilar cultural scripts, and a need to mitigate anxiety and uncertainty using the axioms proposed by AUM theory.

My analysis of the data suggests that no single aspect of similarity (be it demographic, experiential, non-professional status) in itself is sufficient to completely enable a CHW to overcome her 'outsider' status, at least not at the time of the first meeting and early stages of the relationship between client and worker. However, similarity between the worker and client was able to mitigate the impact of 'being an outsider'. Further, the role characteristics of CHWs acted synergistically to achieve this. Tables 14 and 15 offer some examples emerging from the data for person and role characteristics respectively.

Table 14: How CHW person characteristics mitigate anxiety and uncertainty in the data

Characteristic	According to the data, ways in which characteristic mitigates anxiety and uncertainty (adapted axiom terms underlined)
Knowledge	<p>Workers with appropriate knowledge understand</p> <ul style="list-style-type: none"> • Importance of <u>maintaining respect and dignity</u>, and demonstrating that she has <u>similar/equal power</u> to the client • <u>Disclosure of personal details</u> can develop intimacy • The need to <u>provide knowledge</u> about the CHW service and its non-professional status <p>Workers can apply knowledge to provide <u>high quality contact</u></p>
Skills	<p>Shared 'community' language indicates <u>similarity</u> or <u>common ground</u></p> <p>Communication skills – showing <u>respect</u>, <u>maintaining dignity</u> (by communicating courteously and at a level appropriate to the client), <u>quality of contact</u>, developing a sense of <u>reciprocity</u>, and <u>communicating mindfully</u>.</p> <p>Worker communication skills may overcome deficiencies in <u>clients' information-processing skills</u></p> <p>Counselling skills may foster <u>mindful communication</u>, enabling workers to overcome the influences on AUM</p>
Personal qualities	<p>An empathic, compassionate worker who is a 'people person' <u>converges towards</u> a client.</p> <p>Certain CHW values (e.g. being pro-breastfeeding) may indicate <u>common ground</u> (though it may present a <u>threat to the self-concept</u> if the client is less 'pro-breast').</p> <p>Non-judgmental CHWs are able to <u>maintain respect and dignity</u> for the client.</p> <p>Clients may be more <u>attracted to</u> friendly worker with a positive disposition</p>
Similarity to the client group	<p>In general similarity indicates <u>similarity</u>, may remove any need to <u>suspend clients' negative perceptions</u> or <u>rigid attitudes</u> about the worker</p>
Shared demographic characteristics	<p>Indicates <u>similarity</u></p> <p>Provides <u>common ground</u></p> <p>Was viewed as important in excluded communities with low <u>group self esteem</u> and a <u>culture of non-engagement</u> (e.g. Somali POW viewed as highly effective)</p>
Shared experience	<p>Indicates <u>similarity</u></p> <p>Provides <u>common ground</u></p> <p><u>Disclosure of personal information</u> builds <u>reciprocity</u> and develops <u>intimacy</u></p> <p><u>Maintains dignity</u> if shared experience means the worker understands and doesn't judge</p> <p>Confirms/reinforces client <u>self-concept</u> (as ideas and experiences 'normal')</p> <p>Makes worker more likely to <u>converge towards</u> client</p>
Shared non-professional status	<p>Indicates <u>similarity</u></p> <p>Avoids negative <u>expectations of professional behaviour</u></p> <p>Workers able to <u>disclose personal information</u> (not 'professional' behaviour)</p> <p>Less worker-client <u>power differential</u></p> <p>No statutory powers – less <u>unpredictable</u></p> <p>Non-professionals more friendly, <u>converging towards</u> the client</p> <p>Professional communication style reinforces <u>power differential</u>, or fail to <u>maintain dignity or respect</u></p> <p>Professionals less able to understand and respond to needs, providing a lower <u>quantity and quality of contact</u></p> <p>Role characteristics of professionals also relevant here</p>
Volunteer or paid	<p>Not reported by participants, though volunteer status may indicate a willingness to <u>converge towards</u> a client (rather than having to be paid to do so)</p>

Table 15: How CHW role characteristics mitigate anxiety and uncertainty

Characteristic	According to the data, ways in which characteristic mitigates anxiety and uncertainty (adapted axiom terms underlined)
Continuity	Better <u>quantity and quality of contact</u> with a specific worker Lower <u>unpredictability and variability</u> as no new faces
Settings	
Geog. location	No data for this characteristic
Physical venue	Safe place which <u>maintains dignity</u> (e.g. to breastfeed among other women) Less need for a client to be <u>confident in ability to predict strangers' behaviour</u>
Group settings	Provides a <u>group of similar others</u> Group norms (disclosure, support, lack of judgement) <u>maintain dignity and respect</u> Group support is a <u>cooperative task</u> Non-hierarchical group demonstrates <u>similar relative power</u> of individuals Group members may <u>converge towards</u> the client to offer support <u>Disclosure of personal information</u> occurs, which also builds <u>understanding and knowledge</u> and a <u>sense of reciprocity</u> in the client Meets <u>need for group inclusion</u> (provided welcomed by the group)
Date and time	Flexibility builds <u>sense of reciprocity</u> (worker accommodates client's schedule) More reliable appointments and timekeeping (than health professionals) reduces <u>unpredictability and variability</u> Joint scheduling is a <u>cooperative task</u>
Limited responsibility	Improved <u>quality and quantity of contact</u> (including contact which builds <u>self esteem</u>) due to fewer conflicting priorities
Core tasks (social support only in the present analysis)	Social support activities foster a <u>sense of reciprocity</u> in the client, who feels helped Emotional support may demonstrate respect Appraisal support may build <u>self esteem</u> Workers may <u>disclose personal information</u> as part of informational or appraisal support
Enacted philosophy: empowerment and client focus	Client focus demonstrates respect, and encourages workers to <u>communicate more mindfully</u> Addressing client's self-determined needs fosters a <u>sense of reciprocity</u> , delivers <u>quality contact</u> , and <u>maintains dignity and respect</u> An empowerment approach, where clients are not told what to do, <u>maintains dignity and respect</u> , and makes workers appear less <u>unpredictable and variable</u> than professionals Empowering clients fosters a <u>sense of reciprocity</u> where the client sees positive results It requires <u>cooperative working</u> , and is often focused on building <u>self esteem</u>
Time	Permits greater <u>quality and quantity of contact</u> , and more <u>mindful communication</u> Overcomes <u>self esteem</u> issues which prevent clients from bothering obviously busy professional staff

9.6.4.2) Client identity, wants and needs, and client engagement

PRIME theory suggests that motivation is improved where engaging in an activity is consistent with, or enhances one's identity or self-concept – meeting a 'want' or desire for a positive identity. Similarly, where an activity challenges our identity, PRIME theory denotes that we are less inclined to engage with it – we 'need' to avoid this negative threat. In other words we subconsciously desire to maintain or enhance our self-concept, or avoid activities that erode it. Identity can be defined in terms of descriptors of who we are (for example "I am a good mother"), or rules about what we do ("I do the best for my children.") Essentially it refers to how we wish to see ourselves. Participants in the services sampled provided accounts that suggested CHW services can provide support that is consistent with, or has a positive impact on identity. Participants contrasted this with examples where traditional professionals appeared to challenge clients' self-concept.

CHW person and role characteristics impacted on the reinforcement or challenge of identity in a number of ways. First, the characteristics associated with appropriate needs assessment and social support provision (described previously in sections 8.1-2) were variably reported to enable the worker to understand the nature of the client self-concept, and the need to maintain identity. For example, participants often related how they knew that clients did not wish to be told what to do (thanks to their *knowledge, empathy* or *similarity*), perhaps indicating that doing otherwise would challenge the client's identity as an autonomous, in-control individual. Workers were then able to communicate in a way that avoided this, thanks to their *communication skills*, and *enacted philosophy* of client *empowerment*. This was contrasted with a more directive approach that traditional

professionals were perceived as taking, and it was described as having an impact on the degree to which clients engaged with CHWs.

An important element of identity for many clients in the services sampled appeared to be that of the 'good mother'. There were accounts of activities which impacted on clients' children evoking positive feelings such as pride, arguably reinforcing this identity and encouraging engagement. In the following quote the M&T Service reinforces identity through its provision of instrumental support (facilities to prepare a meal), informational support (about how to prepare it), and appraisal support in that parents were given the opportunity to evaluate what they had achieved and see its impact on their children.

"At the end of each session, the crèche workers bring the children up and they join in and everybody sits down and eats at the end of each session. What you often hear is 'Oh, mummy made this'. So people are quite proud, and it could be the first thing that they've ever made.

M&T Worker 1

A second facet of identity within PRIME Theory is the need to be 'normal', or not to be deviant.(247) CHWs described activities which could reinforce this sense of being normal, providing opportunities for social comparison (through *similarity* and *group* approaches), but also through reassurance (due to *knowledge, skills, empathy and compassion, and non-judgmentalism*). This may increase engagement with the CHW service. The following example demonstrates how a Slimming World Consultant was more motivated to engage as a result of the supportive, non-judgmental atmosphere in *groups*, where it was not socially deviant to cry.

"I remember crying myself at one point, because it was just so open. And it was a place where it was okay and if you needed to have a little bit of a cry, then that was fine. And you could go back the next week and nobody would be any different. And that really made a difference to me. So I'd pull out all the stops to try and get there, I'd leave work early if I

needed to. It just kept me on the straight and narrow.”

Slimming World Consultant 1

However, a worker's *values* may negatively impact on the self-concept. While there were no direct accounts of this, using the example of Peer Supporters who are pro-breastfeeding, even if they are non-judgmental the fact that they promote breastfeeding as normal may challenge the identities of clients who are considering stopping, and this may lead to disengagement with the service.

9.6.4.3) Past associative learning, wants and needs, and client engagement

In PRIME theory, West states that motivation to engage in behaviour is unconsciously influenced by 'past associative learning' about the behaviour. In other words, if past experiences of a behaviour addressed our wants and needs, we are more motivated to engage in the behaviour again. Similarly, if past experiences were associated with discomfort or pain, we are less inclined to engage. The active, reflective process of evaluating past CHW engagement experience has already been described in section 9.6.1. In reality, it may be difficult to cleanly separate the reflective (conscious) and automatic (subconscious) decision-making processes impacting on our motivation, and there may be significant overlap with active reflection and natural emotional responses. West and Michie acknowledge that on occasion the boundaries between processes are somewhat blurred.(246)

In terms of client engagement with CHWs, participants described how CHWs might be at a specific advantage to traditional professionals in terms of past associative learning as a

result of their *similarity*, or non-professional status. POWs in particular related how many of their clients had previous negative experiences with professional workers, and described the POWs' ability to disassociate themselves from midwives and social workers, and to say "I am not a professional." The *similarity* between client and worker, namely their shared non-professional status, was perceived to negate barriers to motivation caused by past associative learning. However, some clients were reported not to make the distinction between CHWs and other professionals. This was most notable in the POW Service, arguably because workers undertook a role that was nearer to the paraprofessional end of Eng's support spectrum (described earlier on page 32), and the behaviour of workers was 'more professional'.

CHW role characteristics may have an influence on the level of past associative learning, and subsequent willingness of clients to engage with them. The fact that CHW services frequently offer *continuity* of worker means that there is more scope for building positive past associations. *Time* affords similar opportunities, in that workers may provide many points of contact over a lengthy duration during which to form positive associations.

9.7) Summary of engagement

The previous discussions on client engagement with CHWs identify the importance of client behaviour in delivering effective social support. Use of the COM-B framework, and PRIME motivation theory has provided insights into why CHW services may be successful in reaching clients where traditional services may not, and how person and role characteristics

may function in this process. Furthermore the application of AUM theory suggests that CHWs may have clear advantages over other workers in establishing relationships with clients as a result of these characteristics. However, relevant characteristics were not consistently present in all workers, and in some cases this was reported to impact on engagement. In addition, even where favourable characteristics were present, difficulties in engaging some clients was still described. It appears that while certain characteristics improve engagement behaviour, there are some client groups who are particularly hard to engage. The application of COM-B, PRIME and AUM theories in this context is a potential route to understanding the underlying reasons in specific 'hard to reach' populations, and addressing barriers to engagement.

CHAPTER 10) SUMMARY OF FINDINGS

Due to the complexity of the analysis, it was deemed to be worthwhile bringing together the key findings in one chapter before embarking on discussion. What follows is a summary of the results of the work in relation to the original aims and objectives.

The aim of this work was to explore the mechanism/s by which CHWs aim to bring health gain to service users in England. The objectives of the study were, by reviewing the literature, and from the accounts of CHWs and other stakeholders, to:

- i. Identify the key characteristics of CHWs
- ii. Describe the key components of the mechanism by which CHWs aim to deliver health improvement across a range of CHW approaches/services
- iii. Identify how CHW characteristics in i) relate to the intended mechanism of health improvement in ii)
- iv. Compare and contrast the CHW characteristics and mechanism across a range of CHW approaches / services
- v. Synthesise the published findings and empirical work to build a theoretical perspective which accounts for the mechanism by which CHWs aim to deliver health improvement

The first research objective concerned the identification of the key characteristics of CHWs, and CHW roles that enable them to improve health and wellbeing. They were explored in a range of contexts, and in this sense research objective iv), 'compare and contrast

characteristics and implementation across a range of CHW interventions/services' was also addressed. The literature review provided insights into the range of characteristics that might influence CHW support, and the empirical work with CHWs and other stakeholders provided rich, nuanced accounts which were consistent with, but added value to existing conceptualisations of CHW interventions. The relevant person and role characteristics of CHWs are repeated below.

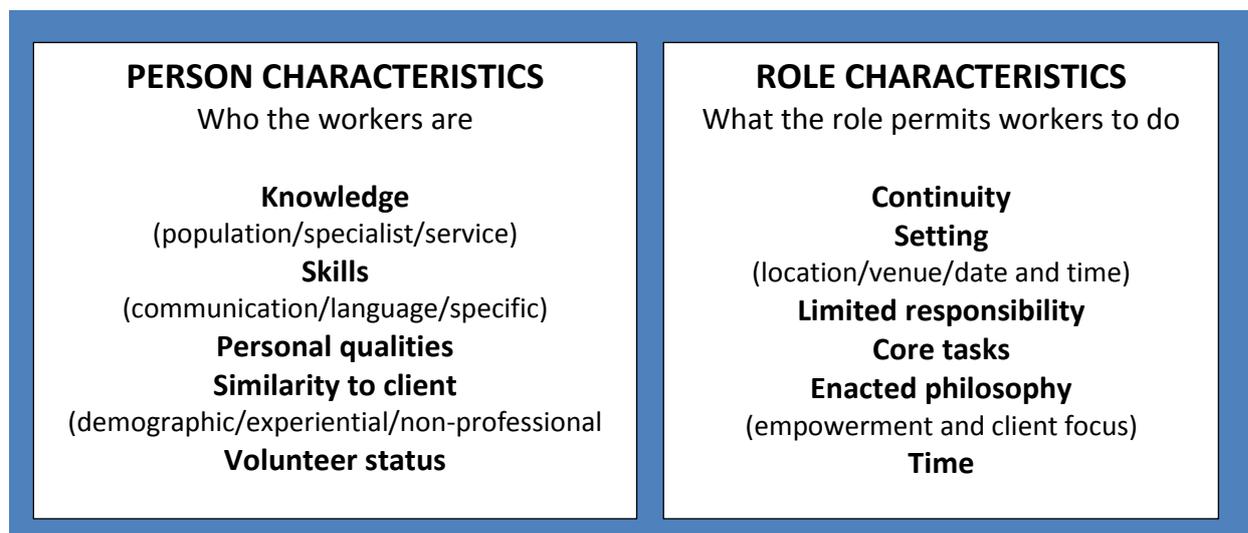


Figure 17: Revisiting CHW person and role characteristics that influence health improvement

The next objective of this work was to describe the key components of the mechanism by which CHWs aim to deliver health improvement across a range of CHW approaches/services. The range of support activities undertaken by CHWs in the services sampled was explored, and found to predominantly tally with Langford's conceptual analysis of social support, with its discrete domains of informational, instrumental, appraisal or emotional support. In other words, the mechanism by which CHWs aim to deliver health improvement appeared to be the delivery of social support. During the initial stages of analysis, a largely descriptive 'shopping list' of CHW activities was derived from

the data. However, further scrutiny of each individual characteristic suggested that there were three discrete elements in the intended CHW health improvement mechanism: appropriate needs assessment, appropriate support provision, and client engagement with the support provided. CHW characteristics were reported to variably influence these three processes. For ease, the relationship between these three elements is repeated in Figure 18 below.

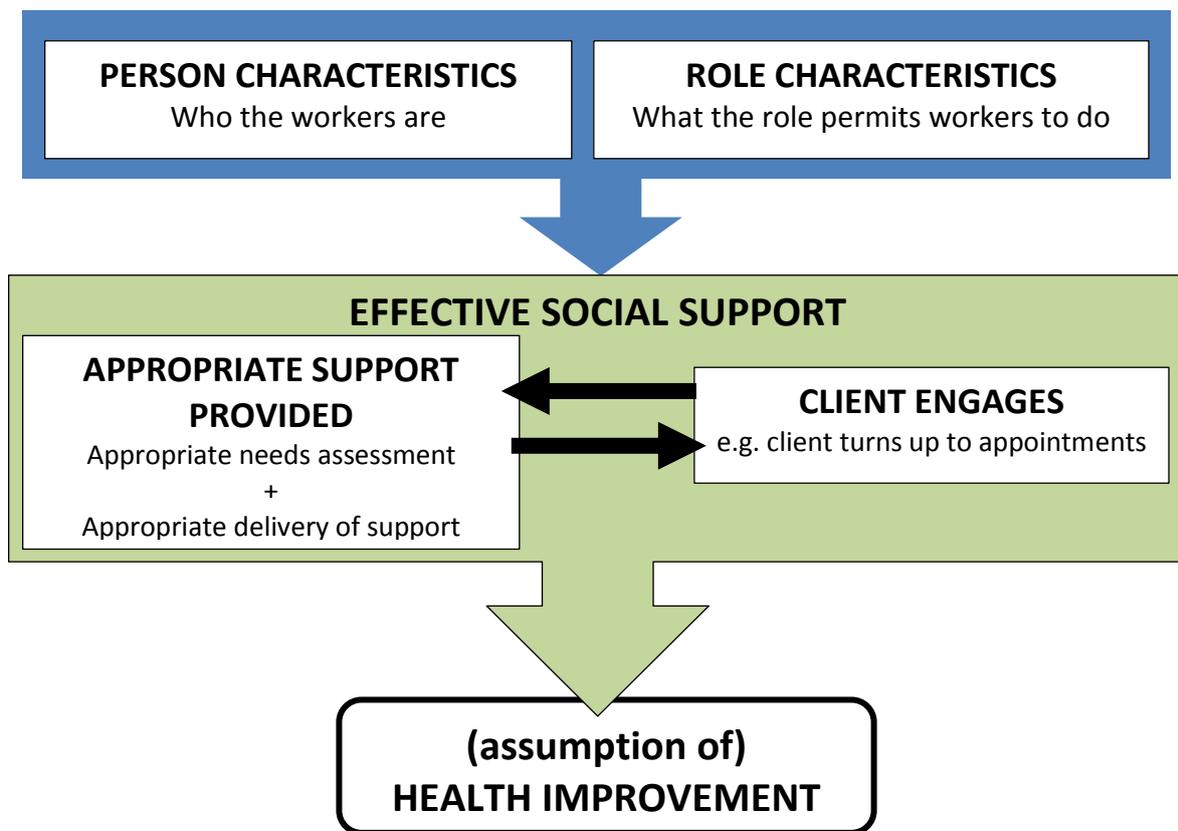


Figure 18: Revisiting the mechanism: how CHWs aim to improve health through social support

Participants in the study did not differentiate between needs assessment, service provision and engagement, perhaps illustrating the often subconscious, iterative and interdependent nature of all three processes. However, it became clear that the three aspects of the mechanism were separate, and all appeared necessary for the intervention to function as a whole. The person and role characteristics that were often cited as so important by

research participants (and in the literature) appeared to perform different functions across the mechanism, and mattered to a greater or lesser extent in different circumstances.

What follows is a summary of these characteristics, and the ways in which they were reported to impact on the intended needs assessment, support and engagement processes (research objective iii)), thus providing a theoretical perspective which accounts for my proposed mechanism (research objective v)). I will not revisit the role of external theories (in particular AUM and COM-B theory), though of course they were pivotal in reaching many of the findings.

CHW knowledge was reported to impact on workers' ability to assess client needs, to provide support that met them, and to appear sufficiently credible for clients to engage. Knowledge was an important factor across the mechanism, though the nature of the knowledge deemed to be required was dependent upon the client, their situation, and the issue being addressed. Where knowledge reportedly impacts on the quality of social support given, it may also improve client engagement with workers by reducing anxiety, and avoiding challenging client identity. Worker knowledge may also help clients to overcome physical limitations to behaviour change.

Different types of knowledge were described (population, service and specialist), and all three played a role depending on the context. Often knowledge was acquired through training or work experience, rather than through direct experience as a member of a demographic, experiential or non-professional group. However, there was a suggestion that where client support required knowledge of their lived experience, it was superior when it had been acquired through similarity, rather than in a classroom or from work

experience, as the quality and depth of understanding was greater. Similarity appeared to improve the degree of cultural competence in workers (where individuals routinely apply cultural knowledge in practice). Cultural competence was not necessarily required to perform CHW functions (for example a worker can transport a client to an appointment without it), and was context dependent, but in some cases it was associated with more appropriate support, and increased credibility with clients.

Communication skills were perceived as important across all contexts. 'Community' language and specialist skills (such as breastfeeding) were deemed important where the client group or intervention required them. All of these skills were reported to improve the information-gathering process involved in needs assessment. They also facilitated all aspects of social support provision. In particular, the quality of emotional support appears to be influenced by the communication skills of the worker. In terms of client engagement, skills may overcome communication barriers, lend credibility to the worker, and reduce client anxiety through mindful communication or shared language.

The range of skills in the services sampled were acquired in a variety of ways. While it was suggested that some individuals in particular had naturally strong communication skills, there were also clear accounts of training enhancing communication skills. Some skills, such as breastfeeding, were associated with similarity to the client, and these workers had specific advantages such as the ability to model the skill (provided they were still doing it) and to provide detailed advice and assessment informed by direct experience of breastfeeding. Similarity was also reported to impact on communication skills in that non-professional status, and shared socioeconomic or geographical community identity might

impact on accent, and use of language that clients could comprehend. A further skill that was only observed in individuals with shared ethnic background was language. While theoretically other workers could have learned a minority language, this was not the case in practice.

Personal qualities such as empathy, and non-judgmentalism were reported to improve the quality of needs assessment. In some cases this was related to similarity between worker and client, with participants suggesting that similarity is a natural route to these qualities, though it was by no means essential, and some workers described becoming more empathic and less judgmental as a result of their exposure to their client group. Empathy and compassion motivated workers to provide appropriate social support. Where workers were unencumbered by fixed values, or where they were non-judgmental, they were perceived as providing social support that was right for the client, rather than 'right' according to the worker. While similarity was seen as one route to empathy and compassion, there was also a suggestion that CHWs who were naturally empathic and compassionate people might compensate for a lack of similarity between worker and client, in that the CHW was still able to understand and respond appropriately despite a lack of direct knowledge of their situation. In terms of client engagement, a positive disposition (being warm or friendly) was reported to promote client attendance, and, along with compassion, persistence, and going the extra mile, may reduce client anxiety about engagement. Overall, these qualities appeared to facilitate a bond between worker and client, improving engagement.

The use of volunteers, rather than paid workers, was reported to result in passionate, motivated CHWs who arguably might deliver better support as a result. Volunteers can choose to leave at any time, and are not compelled to work in order to pay the bills, so this may maintain enthusiasm and commitment in the workforce. However, volunteer status was potentially associated with less credibility where clients perceived a need for expert help for acute or serious issues. A final plus point of using volunteer workers was that they were described as being less bound by organisational targets, and more free to support clients without needing to steer them in a particular behavioural direction. However, interviewees suggested that there was a limit to how much volunteers can and should be asked to take on (reducing their flexibility and reach), potentially constraining how volunteers can be used in practice.

Similarity between worker and client has already been discussed in terms of knowledge, skills and personal qualities, and its association with these other characteristics was reported to impact on needs assessment, support provision, and client engagement.

Similarity between worker and client also facilitated the provision of appropriate instrumental support in some cases, as workers had access to networks that non-similar workers did not. However, some professionals were reported to be less willing to engage with (non-professional) CHWs, which at times had created challenges in providing instrumental support. Similarity was a route to appropriate provision of informational support and appraisal support, where workers were able to share stories about their own experiences, or act as role models or social comparators to similar clients (though only if similarity was disclosed). Similar CHWs also reported being able to pass as members of a client's social network, and performing a naturalistic companionship emotional support

role. In terms of client engagement, disclosed similarity was associated with increased credibility in some circumstances, as workers were perceived as knowing what they were talking about, though where clients were looking for credible 'expert' support, being perceived as similar was sometimes a disadvantage (i.e. professional advice was preferred). Similarity was also described as avoiding risks associated with engaging with workers (primarily the removal of children), and reducing anxiety about engagement, most often in the context of non-professional status (i.e. clients were anxious around professionals). However, some clients in excluded groups were reported to make little distinction between CHWs and professionals, and as a result CHWs still faced similar engagement challenges to traditional workers. Where similarity was based on shared experience, the recency of the CHW's experience was reported to impact on her ability to provide support, and upon the credibility of the worker, with subsequent impacts on engagement.

A key reflection around similarity is that it is challenging to define, and has many facets. Individuals may also have different approaches to defining their own similarity to another person. While this study has defined a number of broad categories of similarity, the fact is that there is considerable overlap among them (such as where an ethnic group tends to speak the same language, have the same religion, and live in the same neighbourhood). Also, individuals may have a range of identities that they inhabit, which are compiled of a range of characteristics that apply to a greater or lesser extent in different situations. While categories (for example ethnicity) have been used to define groups in this research, it is important to recognise their limitations, in that they risk objectification of individuals and can never account for the richness of human experience.⁽⁶⁰⁾ However, the use of defined categories in this work is a pragmatic solution to the hitherto vague pattern of

implementation and reporting of CHW interventions, and can aid understanding, despite it being necessary to view in context.

The empirical work for this study has reinforced my position that the 'lay', 'peer' and 'community' labels used in the literature are unhelpful in understanding CHW interventions. Peer Support Workers were previously unknown to the majority of their clients, and cannot truly be regarded as 'peers', though their status is still consistent with the definition of 'peer' supporters as part of a 'created' social network. M&T Workers referred to themselves as 'lay people', but often had qualifications and experience that set them apart from their clients. POWs were recruited for their 'community experience' but the 'community' served by the Service was vast and diverse, and workers were usually deployed outside of their own areas of experience. Overall, the communities being served were epidemiologically defined, rather than neighbourhoods or other groupings that clients would recognise. This is why I propose moving away from these ambiguous labels, and instead clearly defining the dimensions of similarity in CHW interventions in terms of demographics (age, ethnicity, religion, socioeconomic status, locality of residence), shared experience, and non-professional status.

A further important issue is that of the process of professionalisation of CHWs through training and socialisation into the role, and how this might impact on their ability to operate in their target communities. The level of training that some CHWs in this study received could be construed as significantly separating them from their client group. Similarly, many were seeking further training opportunities, thus moving them further away from a non-professional identity. This study did not provide coherent accounts of this issue, though

this is perhaps due to the fact that the data was derived predominantly from workers (who did not perceive a problem with training), not client interviews or observational data.

The overarching theme with respect to similarity is that it appears to be of variable importance. While the CHW literature often relates, usually in vague terms, the advantages of recruiting workers who are similar to their clients, this study provides examples of where similarity was not realised, yet interventions appeared to be functioning well. Knowledge, communication skills, and personal qualities such as empathy and being non-judgmental were all reported to compensate for a lack of similarity in many situations.

Continuity was reported to deliver better needs assessment as workers could build their understanding of the client over a number of contacts. It was reported to enable workers to provide appropriate instrumental bridging support between clients and other agencies, as they were a continuous presence. It was also seen to improve consistency of informational support. It was perceived as enhancing emotional support indirectly through better needs assessment and client engagement. Continuity also enabled appraisal support to be given in an iterative, longitudinal way, which was described as more effective, particularly in complex client situations. In terms of client engagement, continuity was seen to allow workers to demonstrate their credibility and build trust over time. The increased quantity of contact, and lower unpredictability delivered where continuity was present may have reduced client anxiety, and encouraged ongoing engagement. Continuity also provided an opportunity for clients to build memories of positive experiences with CHWs, which may additionally improve their motivation to engage.

The setting was reported to impact on the health improvement process in a number of ways. Where the geographical location was adjacent to other services, it was cited to facilitate relationships with other stakeholders and improve instrumental support. Where services were delivered in a location that was adjacent to the client (for example in their home) it could overcome psychological barriers to engagement, for example if they lacked the self-esteem to attempt to make a journey to services, or the organisational skills to get there. This could also overcome barriers in the physical environment, such as a lack of transport or money to pay for public transport. On the other hand, where services were provided some within reasonable proximity but not adjacent to the client, and necessitated travelling to reach them, this was associated with improvements in mood and self-esteem due to the sense of achievement and participation in society that it entailed. It was suggested that services would still need to be local in order that clients could reach them easily.

The venues used to deliver interventions were varied. Where services were located alongside others in the same venue it facilitated service knowledge and instrumental and informational support of clients. Where support was given in clients' homes, the opportunity to see the client in a naturalistic setting was stated to provide additional information regarding their needs. Some venues, such as Children's Centres, provided instrumental support in the form of facilities (for children, or for activities), privacy (in which to receive personal support) or somewhere to go (for clients who wished to get out of the home). Where venues were flexible, such as in the POW service, this facilitated the provision of all kinds of instrumental support, in that workers could take clients to any place where the support that was deemed necessary could be provided, such as a charity shop.

Certain venues may have made adjustments that permit individuals with physical limitations to engage, though this was not reported in the data. Where the venue was the clients own home, as already described in the last paragraph, this can overcome psychological and physical environmental barriers to engagement. Venues with positive reputations may confer credibility upon CHWs who are based there, increasing engagement, though this will depend on how the specific client group views the venue. Where venues are pleasant places, or where they provide opportunity for social contact, they may in themselves evoke positive emotional responses, improving motivation to engage with services. They may also reduce client anxiety or uncertainty about engaging by being safe places that maintain dignity and do not have any hidden surprises. Where clients have dependent children, the provision of childcare at venues may overcome a major barrier to engagement.

Where CHW interventions were delivered in group settings, clients were reported to receive additional informational support from other group members. Similarly, others in the group were stated to deliver emotional and appraisal support to their fellow members, the latter often as a result of their ability to act as credible social comparators. It must be noted that the lack of accounts of groups not working well does not necessarily mean that this does not occur, or that some individuals may not behave positively in groups (for example by being difficult, disruptive or unsupportive).

Furthermore, group settings provided clients with an opportunity to observe their worker in practice, potentially enhancing their perception of the worker's credibility, increasing engagement. Engagement may also be improved due to the attractive and pleasurable experience of social contact with other group members. Anxiety about engagement may

be reduced by the provision of a group of similar others, where there is no shame in disclosing personal difficulties, and one's identity is reinforced, or at least not challenged (which in itself enhances motivation to engage). This anxiety may also be mitigated through the cooperation of members with one another, the lack of power differential between members, the convergence of group members towards others in need, the intimacy (disclosure) between group members, the sense of reciprocity that may be developed in groups, and the sense of belonging that members derive from participation. In terms of engagement in healthy behaviours, group members may also demonstrate activities, or give accounts that reshape clients' perceptions about how pleasant or uncomfortable a behaviour can be, potentially increasing willingness to attempt it.

Date and time flexibility had a number of impacts across the mechanism, though of course some interventions were more flexible than others. It was not reported to have an impact on needs assessment (though the stated positive impact on client engagement may improve needs assessment opportunity indirectly). However, it was stated to make workers available to provide instrumental support when it was required, overcoming physical environmental barriers such as a lack of transport to doctors' appointments. The ability to provide emotional support outside of traditional working hours was seen as valuable, particularly for those who had little or no support in their own social network. It was suggested that date and time flexibility made clients respond more positively to CHWs compared with professionals, potentially improving engagement. Such flexibility demonstrates reciprocity, predictability, and cooperation with the client, all of which have been shown to influence individuals' anxiety around engaging with others. Where such flexibility was not offered, workers had observed a negative impact on clients' ability to

engage with support. Finally, in cases where there were social barriers to engagement (such as coercive family), flexibility in time and place enabled workers to provide support away from these influences.

The limited responsibility of CHW interventions was reported to confer a number of advantages. It was suggested that CHWs' relative lack of conflicting priorities gave them more capacity to assess client need and provide social support in all its forms, improving its quality, and with potential subsequent impacts on outcomes and client engagement. It was also described as permitting workers to become expert at social support, while traditional professionals had to balance it with other areas of expertise (for example clinical care) that were often more important in their role. In some circumstances, limited responsibility was related to a lack of legal or surveillance responsibilities, which was reported to make CHWs less intimidating or risky, encouraging better engagement. Theory suggests that CHWs' relative lack of conflicting priorities may also reduce any anxiety that clients have around engaging (and 'bothering' the worker), thus improving participation. Where limited responsibility improved the delivery of social support this was also reported to encourage engagement, as good support increased credibility and evoked a positive emotional reaction in clients.

The enacted philosophies of some CHW services were cited as part of the reason they were effective in health improvement. The client-focused, empowerment approach of interventions was reported to improve the quality of needs assessment, as CHW activity was, by definition orientated around what the client needed. It was also suggested that the quality and style of informational and appraisal support was positively impacted by the

client-focused way of working, in that clients were not told what to do, were supported to work out what was best for them, and were not encouraged down an externally determined 'right' path. This in turn was reported to reinforce rather than challenge client identity, encouraging ongoing engagement with the service. The incremental self-esteem-building aspect of client-focused empowerment support was cited as avoiding disengagement due to feelings of failure. Where clients could see workers operating in a client-focused way, they were reported to see CHWs as more credible sources of support for their self-defined needs, also improving engagement. It also impacted on some of the determinants of client anxiety and uncertainty; fostering a sense of reciprocity, working cooperatively with clients, and building their self-esteem. Finally, client-focused empowerment support was viewed as encouraging further engagement with, and overcoming barriers to behaviours and services beyond the CHW intervention, as clients were incrementally encouraged and developed to become more competent, self-efficacious individuals.

The core tasks falling under the banner of social support are the central focus of this entire study. The data suggests that where CHW services are commissioned, designed and delivered to undertake core tasks which fall within the definition of social support (despite not being explicitly articulated as 'social support'), that they are more likely to be delivered. In other words, workers specifically assess clients' need for aspects of social support, and are recruited and trained to have the right characteristics to do so (rather than doing this on an *ad hoc* basis). Also, workers are officially sanctioned to devote their capacity to providing these activities: it is their job to deliver it, rather than an 'add on' or extra task as it was often reported to be for professional staff. The fact that CHWs were seen by their

clients to be 'there' to deliver socially supportive activities was also related to improved client motivation to engage through increased CHW credibility, reduced client anxiety, by evoking positive emotional responses, and by reinforcing (or not challenging) client identity. Improvements in clients' engagement with other services, and healthy behaviours (for example healthy eating) was also often reported to be delivered as a result of the support tasks that were part of the CHW role.

Time was one of the most commonly cited reasons for CHWs being able to deliver effective health improvement. It was often suggested that health professionals might be able to perform elements of the CHW role if only they had the same amount of time to spend with clients. More time was related to CHWs' ability to conduct adequate needs assessment, and to the quantity and quality of all aspects of social support. However, time could only facilitate professionals to provide social support if they had the specific person characteristics to do it adequately, and if their role permitted them to undertake the relevant social support tasks. This was not perceived to be the case in many situations.

The important message with respect to the CHW person and role characteristics, is that they will be of varying importance depending on the context of the service. All of the characteristics identified can affect the process, with one exception in the case of volunteer status, which was not described as having any impact on needs assessment

SECTION C)

DISCUSSION AND CONCLUDING REMARKS

CHAPTER 11) DISCUSSION

This section covers a number of areas. First, the key findings are summarised (11.1). Next, the strengths and limitations of the literature review (11.2) and empirical methodology (11.3), and my personal reflections on the process are explored (11.4). Then the findings will be discussed in the context of the existing literature (11.5), and recommendations for further research provided (11.6). Finally, implications for policy and practice are described (11.7).

11.1) Summary of key findings

A detailed summary of the results is provided in Chapter 10. This section distils these, to provide 'headline' findings of the doctoral work. This work has found gaps in current theory and conceptualisation of CHW approaches, in particular limited understanding of the mechanism by which CHWs aim to bring about health improvement, heterogeneity in accounts of CHW approaches, and limitations in three common terms used to describe CHWs 'lay', 'peer' and 'community'. It has subsequently explored the mechanism by which CHWs aim to bring health gain in English settings, the overarching aim of this study.

Through synthesis of the literature, in conjunction with empirical work in practice settings, and drawing on theory previously not applied in CHW research, I have proposed that the primary mechanism by which CHWs aim to deliver health gain in the services studied is

social support, and the main influences upon this mechanism are ‘who’ the CHW is, and ‘what’ the CHW role does. These characteristics are repeated for reference in box 16.

<p>PERSON CHARACTERISTICS Who the workers are</p> <p>Knowledge (population/specialist/service)</p> <p>Skills (communication/language/specific)</p> <p>Personal qualities Similarity to client (demographic/experiential/non-professional)</p> <p>Volunteer status</p>	<p>ROLE CHARACTERISTICS What the role permits workers to do</p> <p>Continuity Setting (location/venue/date and time)</p> <p>Limited responsibility Core tasks Enacted philosophy (empowerment and client focus)</p> <p>Time</p>
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Box 16: Person and role characteristics

Accounts of CHW activities with clients illustrated the heterogeneous and complex range of social support functions that this group of workers can deliver. However, the large majority of CHW activities in the data could be attributed to one of the four domains in Langford et al’s conceptual analysis of social support (see Chapter 7, Table 10).

The participants’ descriptions of this social support process suggest that there are two interdependent processes required for the delivery of effective social support: appropriate support provision (the support given is ‘good’) and client engagement (the client willingly receives the support given). Appropriate support appears to encourage engagement, and engagement appears to improve the appropriateness of the support provided.

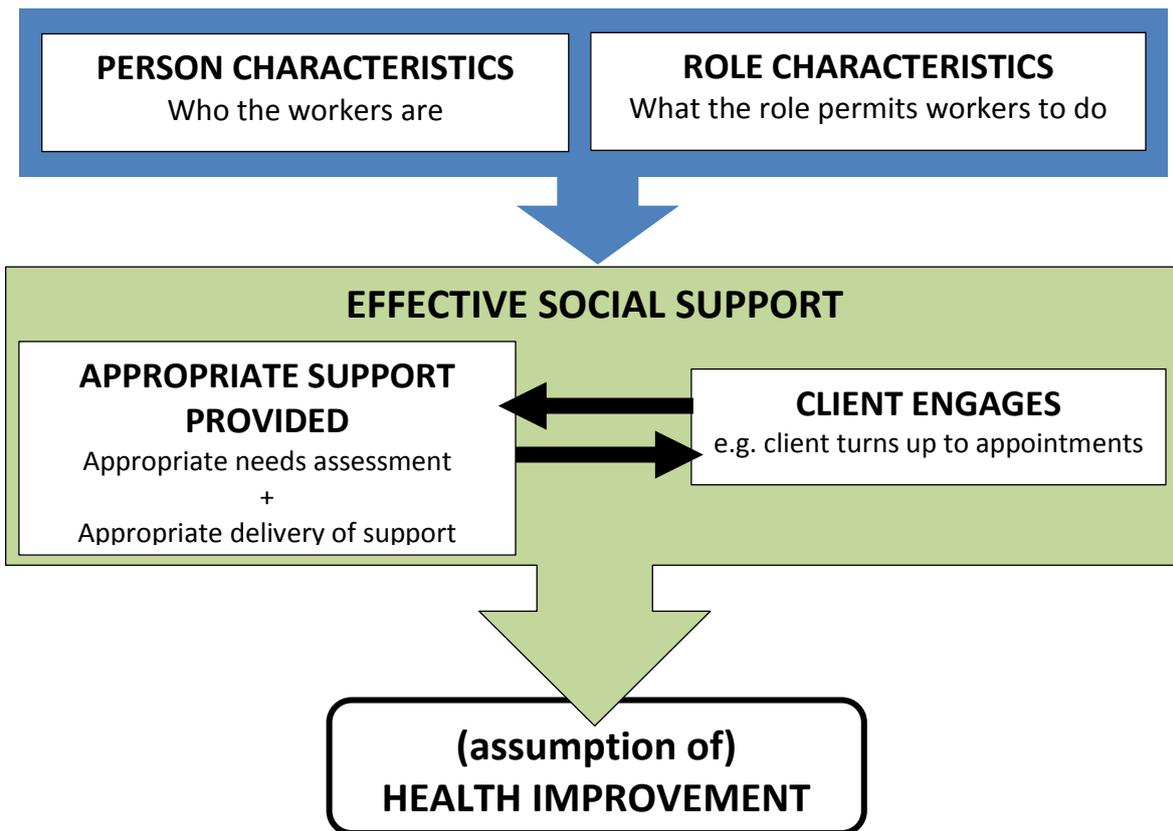


Figure 19: Effective social support

The processes of ‘appropriate support’ and ‘engagement’ can be broken down further.

Appropriate support seems to have two discrete elements: needs assessment and provision of support. The CHW needs to know what to provide (assess the need for social support), and then to provide it. Both steps are required in order that there is no mismatch between what the client needs, and what is delivered.

The second aspect of effective social support provision is engagement. In every case, the client must engage with the CHW, and she may also have to engage with other agencies or professionals, or with healthy ideas or behaviours to achieve health and wellbeing improvement. Regardless of the quality of the support provided, it is unlikely to be

effective unless the client engages with it. The analysis draws on behaviour change and communications theory to explain why CHWs may or may not encourage clients to engage.

The data suggests that the quality of the support provided, and client engagement with support, are susceptible to influence by all of the 'person' and 'role' characteristics of CHWs identified in the earlier analysis. It appears that there may be a number of routes by which different combinations of CHW characteristics can optimise effective social support, and all have their potential benefits. In particular, the similarity between client and worker seems to be an important influence on the process, and also a determinant of other CHW characteristics which in turn influence the quality of support. It also appears that the different characteristics may be of variable importance, depending on the client group, and the health issue to be addressed.

11.2) Literature review: limitations

CHW programmes, in their many incarnations, include a diverse range of individuals and roles, in a huge range of contexts. In 2010, when I embarked on my doctoral study, I quickly became aware of this fact, and recognised the need to make sense of the heterogeneity in the field. It is important to adopt a systematic and replicable process in conducting and reporting reviews of the literature in order to minimise bias in the findings and interpretation, and I have attempted to do this. Over the past five years, since embarking on my research programme, approaches to reviewing literature have developed rapidly, with overlap between approaches, and at times a lack of consensus.(253) I have described my approach as a scoping review, but I am aware that scoping review methodology varies, has evolved, and has become more widely used, in the time between my literature review.(254, 255)

Here I will explore the limitations of my approach, as I have described it, in the context of the scoping review literature. One of the challenges in reflecting on my approach to a scoping review is the lack of agreed reporting standards for this kind of review.

Whittemore et al, in their 2014 overview of methods for knowledge synthesis, identified that no reporting criteria had been developed, and I have not been able to retrieve any examples published since this time.(256) Instead I draw on the work of Arksey and O'Malley, Levac et al, and the 2014 'Scoping Review of Scoping Reviews' conducted by Pham et al, which identified 344 scoping reviews published between 1999 and 2012 (68.9% of which were published after 2009).(53, 254, 255) Pham and colleagues explored the reporting of scoping reviews in the literature, listing a range of characteristics, and the proportion of the studies they reviewed reporting each, against which I have compared my

own review (presented in Table 16). I will also draw on Arksey and O'Malley's Framework for scoping reviews(53) and the recommendations for clarification or additional steps by Levac and colleagues(255) in the following discussion of the limitations of my review.

Pham and colleagues found that only 44% of health-sector scoping reviews reported using a formal framework, for example Arksey and O'Malley's framework(53), to inform the review design and conduct. I was unaware of such frameworks when I designed and conducted my study, and therefore I was not able to use them: instead my approach was informed by my knowledge of systematic review methodology, adapted to address my own review questions. This is a limitation and using a formal scoping review framework may have helped me to design and conduct the review. Arksey and O'Malley's 2005 framework (which still appears to be the basis for scoping studies in the literature)(53) has five stages: 1 identifying the research question; 2 identifying relevant studies, 3 study selection, 4 charting the data, 5 collating, summarising and reporting the results.

Stage 1 relates the benefits and challenges in using broad or narrow definitions, and recommends a wide search if possible (while acknowledging that time and budget may not permit it): broad searches may reap an overwhelming volume of studies, but narrow searches may miss important papers. This is something I wrestled with, resulting in some compromises to enable me to review a large amount of research within my available capacity as the sole reviewer, for example I excluded papers before 2005, and those describing CHW programmes in low and middle income countries. Where key papers cited by others were pre-2005, I made an exception and included them, in an attempt to ensure important work was not excluded. Levac et al offer enhancements to the research question stage: in particular, they recommend "envisio[n]g the intended outcome" of the review, which I did not explicitly do, which may have impacted on data charting and reporting.(255)

Stage 2 of the Framework involves identifying relevant studies. This includes searching electronic databases, reference lists, hand-searching of key journals, and contacting existing networks, relevant organisations and conferences (the consultation element is considered later in this section on review limitations).(53) I did search databases and reference lists of included papers. I did not engage in manual searching of select journals. A major challenge in this review was the overwhelming volume of studies, and while there is a risk that I have missed some studies, I hope that my searching of reference lists, and reviewing lists of articles citing key papers in electronic databases, enabled me to identify the majority of relevant literature.

Arksey and O'Malley also recommend seeking expert support in the development and conduct of searches.(53) In addition to informing my search terms in light of a major recent systematic review (Lewin et al(55)), I consulted a librarian to advise on search terms, databases, and support my searching. They also recommend using reference software to manage the process, and I used Endnote to do this. Levac et al advise that a skilled team should be assembled for the conduct of stage 2: as I was the only available researcher to conduct the work this was not possible.(255)

Stage 3 of the Framework is selection of relevant studies. It was reassuring to discover that inclusion and exclusion criteria are refined and applied post-hoc in scoping reviews(53), as I also found it necessary to refine my criteria, e.g. by excluding studies describing CHW programmes working with children. Selection and review of studies by two or more researchers is advised in scoping reviews.(53, 255) However, I was the only reviewer screening titles, abstracts and full text articles. I was also the sole researcher extracting data, and I did not verify my interpretation with a colleague (something also common in the studies reviewed by Pham). This was a result of availability and capacity of colleagues to

engage in this activity. It limits the review quality as there is the possibility of error (accidentally missing/misinterpreting data) and bias (interpreting data to fit with my underlying theories and perceptions).

I chose to include all sources, including non-research papers and reports. This was the result of my concern about rejecting papers with useful information about the characteristics of CHWs or theories and concepts underpinning their work, because they were not 'high quality' effectiveness research: I was not exploring effectiveness, but breadth of descriptions of CHW approaches. This arguably made the review more labour intensive, but there are many examples of studies describing interesting criteria which would not have been included if I had focused on randomised controlled trials, for example, Kennedy's 2008 work on Lay Food Workers(144).

The thesis reports search terms used, and the outcomes of searches, screening and review in the form of flow diagrams and tables of included studies, to provide transparency regarding the process.

Stage 4 of Arksey and O'Malley's Framework involves charting the data (akin to data extraction in systematic reviews). A key limitation in my approach is the lack of testing and refinement of the data extraction form with a second independent researcher.(255)

Stage 5 of the Framework involves collating, summarising and reporting results. Arksey and O'Malley suggest that scoping reviews do not involve synthesis of data, instead focusing on narrative descriptions of the literature, and without any attempt to quantify the spread of phenomena described in the papers reviewed. I took a narrative approach to summarising and reporting my results,(57) however, there are some additional approaches detailed in

the the methodological literature on scoping reviews which would have been advantageous.

Authors in the field describe presenting descriptive numerical summary analysis, a quantitative description of the frequency of particular study characteristics.(53, 255) I did not conduct quantitative analysis, relying on being embedded in the data to understand patterns of characteristics, perhaps because my focus was on describing the full breadth of accounts of CHW characteristics and theory use in the available literature. Quantitative reporting of the findings may have enhanced the review by illustrating in numbers how researchers and practitioners were currently using and interpreting CHW approaches.

Similarly, authors report conducting formal thematic analysis of data in scoping reviews.(53, 255) My own narrative approach involved reviewing and re-reviewing charted data and assembling the report (my literature review chapter), rather than coding the data and analysing it thematically in an approach similar to my empirical work. Pham et al suggest that a minority of scoping reviews conduct formal qualitative analysis (or at least they do not report it – see Table 16)(254) However, not doing so may mean that I missed or misinterpreted data, with a risk of error or bias in the resulting report.

Levac and colleagues also recommend reporting the results in the context of the research question (in my case the literature review chapter), and then considering their meaning in relation to the purpose of the overall study (in this case the doctoral work, presented in the discussion).(255)

Table 16: Methodological characteristics of scoping reviews, adapted from Pham et al (254)

Characteristics of reported studies in Pham et al	% Pham et al studies demonstrating characteristic	Characteristic demonstrated in my CHW review
Used a published framework	50.6	NO
Consulted stakeholders	47.7	NO
Conducted quality assessment	22.4	NO
Searched electronic database(s)	96.5	YES
Searched reference list of relevant articles	49.4	YES
Manual searching of select journals	27.3	NO
Search in Internet search engines or specific websites	43.3	YES
Consulted experts	28.8	NO
Performed an updated search	7.0	YES
Study selection Used defined inclusion/exclusion criteria	79.7	YES
Screening of titles and abstracts by ≥ 2 reviewers	25.6	NO
Screening of full-text articles by ≥ 2 reviewers	19.8	NO
No limits on study design	73.3	YES
Limited to controlled trials only	2.9	NO
No limits on publication type	58.4	YES
Limited to peer-reviewed articles	12.2	NO
Limited to journal articles (peer and non-peer-reviewed)	24.1	NO
Data charting Data extraction by one reviewer	9.0	YES
Data extraction one reviewer, verified by another reviewer	11.9	NO
Data extraction by ≥ 2 reviewers	18.0	NO
Use of a standardized form	70.6	YES
Descriptive narrative summary	100	YES
Formal qualitative analysis	5.8	NO
Meta-analysis	0	NO

Quality assessment is an area of debate in scoping reviews. Pham et al report that a minority of scoping studies conducted quality assessment, and I similarly did not do so. While Arksey and O'Malley suggested that quality assessment was not required in scoping reviews, Levac et al recommend continuing debate. Daudt et al later suggested assessment should be undertaken, and Pham et al related how it can be a useful tool in identifying evidence gaps and areas for systematic review, but that it is not required to identify the breadth of the field (the overarching purpose of a scoping review). (53, 254, 255, 257) I feel that quality assessment was not required for my own review, primarily

because I was, as Pham states, scoping the breadth of the CHW field, rather than exploring effectiveness evidence gaps to inform a systematic review. I would not have included or excluded any studies on the basis of poor quality.

Pham et al report a final characteristic of scoping studies: the repeat of searches. I performed updated searches later in the doctoral process (beyond Phase 1). However, these were iterative, ongoing searches, as part of my day to day work keeping up with the field, alongside periods of maternity leave and data collection and analysis, and as such there is no clear record of the studies screened and excluded. This is a limitation of my review beyond Phase 1, and a key learning point for me as a fledgling reviewer, as it occurred by accident rather than by design, and on reflection if I were to repeat the exercise I would conduct a specific set of searches at a defined time point which could be replicated by others. The later phases of the review would be challenging to replicate, and bias and error is a possibility.

Levac et al advise that scoping searches should include consultation with relevant stakeholders, while Arksey and O'Malley's older work advises contacting experts at stage 2, and that subsequent stakeholder engagement is optional.(53, 255) I did not extensively consult stakeholders or experts, though I did have contacts working in the same research field and I identified some literature through awareness of their work (e.g. the evidence review by Visram et al(119)). While I am not alone in in this (see table 16), doing so may have highlighted additional considerations in the design (e.g. search terms, databases to search, changes to the inclusion criteria), and identified additional literature, particularly grey literature. It may also have aided my interpretation and reporting of the findings. As my academic career progresses, I am increasingly aware of the importance of the

involvement of others in informing the research process, and am actively engaging in them in my current work.

To summarise, the scoping review presented in this thesis reflects a steep learning curve in evidence review methodology, where a doctoral programme prolonged by periods of absence was perhaps outpaced by the development and adoption of emerging methodology. It has been an invaluable development experience, both in the design and conduct and later reflection, particularly during and following the *viva voce* examination of the thesis. It is reassuring that others' research outputs display similar limitations to my own evidence review, though unfortunately they still impact on the replicability and credibility of the findings. However, this experience has highlighted the importance and relevance of emerging review methods in building knowledge in complex research areas, and I am keen to expand my knowledge and skills in this area, and engage in high quality 'non-systematic' evidence review.

11.3) Methodological strengths and limitations in the empirical work

This research represents a turning point in my understanding of knowledge beyond the boundaries of my positivist, quantitative professional background. This has necessitated the reshaping of my attitudes to validity in research, and challenged core concepts such as bias. Before, I judged 'good' research as that which came as close as possible to the scientific 'truth', and aimed to create standardised conditions through which it could be measured. I have instead arrived at a subtle realist position, in that I believe there is a reality to be understood, but we only access it through the accounts of others, and the way in which that reality is presented will depend on the approach to understanding it. In other words, we are not looking for 'accurate' findings, but rather for 'trustworthy' findings in qualitative research. Where results are shaped by the research environment, including the researcher, this is not perceived as bias, but as an additional contextual layer that must be acknowledged and unpicked. Lincoln and Guba(221) provide a set of evaluative criteria that are parallel with more conventional scientific approaches to quality, but are more consistent with this philosophical stance. While it has been suggested that the conventional criteria could be adapted to apply to qualitative work (provided the researcher does not reject the notion of 'reality'), this idea has not been fully developed, and therefore Lincoln and Guba's criteria (Figure 20) will be applied to critique the methodological approach in this thesis.(221)

Traditional Criteria for Judging Quantitative Research	Alternative Criteria for Judging Qualitative Research
internal validity	credibility
external validity	transferability
reliability	dependability
objectivity	confirmability

Figure 20: Lincoln and Guba’s comparison of criteria for assessing quality in quantitative and qualitative research.(221)

Credibility refers to whether the research findings faithfully represent the ‘reality’ under investigation. Lincoln and Guba present a range of techniques that can be employed to increase the credibility of results. These include prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis, referential adequacy, and member checking.(221)

Prolonged engagement involves being present at the research site for a sufficient period of time to establish trust with participants, to be exposed to the variation in the phenomena being studied (to appreciate the breadth of phenomena), and to become embedded to the extent that distortion of the data by the researcher is minimised (while acknowledging that the findings are co-produced, and will always be influenced by the researcher). This was only partially realised in this study. I was a presence for varying periods across the services sampled. In some contexts I was able to attend team meetings and be seen in the workplaces of the participants in the run up to interviews, sharing refreshments and small talk, and answering questions about myself and the research. In the POW service I was already known and trusted as I had previously collaborated with the Service. Before formal

interviews I spent time building rapport with participants where possible. On the few occasions where participants had limited time (due to external factors) and it was necessary to cut short this rapport-building, it seemed to impact on the quality of the interaction and the data collected. While I felt as if many of the participants trusted me, and they often disclosed sensitive or 'off-message' information, I cannot pretend to have been fully embedded in the field. An ethnographic or longitudinal approach may have reaped rewards in terms of data, but time and resources did not permit it. Furthermore, it was perceived to be a greater priority to explore the breadth of perspectives across a range of CHW contexts rather than to dig deep in one setting, as the research questions concerned CHW interventions as a whole.

Persistent observation involves the focused exploration of important phenomena, and relates to the depth of the inquiry. It requires the researcher to be able to identify what is, and is not relevant, and to make extensive efforts to tease out the subtleties of the phenomena. In this research, attempts were made to achieve this during interviews, and Chapter 3 has already related how techniques such as active listening,(218) 'mental note-taking' and revisiting of key points, content mapping and mining questions, and deep, iterative probing questions were employed.(201) As important phenomena became apparent, participants in subsequent interviews were also asked to explore them if they did not do so spontaneously.

Triangulation can increase credibility by drawing on multiple data sources to build understanding of phenomena. According to Denzin(217) and Patton(222) there are four types. First is methods triangulation (use of a range of methods), which was not

employed in this study. The priority in this research was to explore and develop hypotheses of CHW function where there were none. The in-depth work that this required and the limited capacity of the researcher meant that it was not feasible to conduct additional work using alternative methods to confirm or refute these hypotheses, though this does form part of the recommendations for further work in the field.

The second approach is triangulation of sources, where data is gathered from a range of sources using the same method. This work explored the CHW context in different settings (group, one-to-one), locations (cities, towns and rural areas), client populations (diverse, deprived, affluent), health contexts (social risk, pregnancy, breastfeeding, parenting, diet and weight reduction), market environments (public, private and third sector) and worker types (volunteer, independent business, employee, sessional worker). While this represents only a fraction of the available contexts to explore in the CHW landscape, it does increase the credibility, as many of the findings were observed across the range of services sampled.

The third method of triangulation is analyst triangulation. This refers to the involvement of multiple researchers to either conduct the research process, or review it. Resource constraints dictated that it was not practicable to involve others in the collection, coding and analysis of data, and this is something that others have observed.(258) However, the supervisors were involved throughout the research process, and were involved in reviewing selected transcripts, the analytical framework, and the interpretations being made to identify areas that had not been

fully exploited. The “*devil’s advocate*” function(259) of reviewers in this context, where my assumptions were challenged and explored, was valuable from both a pedagogical and academic perspective.

Finally, theoretical triangulation concerns the use of multiple theories to interpret the data. This has been achieved in this research through the application of a range of theories from the fields of psychology, communications and sociology. Though the findings are presented with respect to several discrete theories, a much broader range was explored during the research process, with the most appropriate being selected for presentation.

A further approach to enhancing credibility is peer debriefing. This involves the researcher discussing interpretation with another individual in order to challenge assumptions, explore the plausibility of hypotheses, and encourage the researcher to become more aware of her relationship with the data and analysis.(221) The doctoral supervisors were the primary sources of peer debrief in this work, throughout data collection, analysis and interpretation, though of course they cannot be considered to be entirely “*disinterested*,” as stipulated by Lincoln and Guba. Further debrief was conducted on an *ad hoc* basis with other colleagues, though to a lesser extent.

Negative case, or deviant case analysis is an additional strategy to improve credibility. In this research, accounts which seemed to refute emergent theories

were explored in depth until they could be explained and incorporated into the interpretation of the data.

Member-checking, or respondent validation, can be used to establish the credibility of findings. This involves asking participants to review data and interpretation. At the outset, it was challenging to communicate the purpose of this research to the participants, and substantial efforts had to be made at the consent stage to ensure that individuals understood the purpose of the work. There was a high level of expectation that the findings would illustrate whether the interventions studied 'worked' or not, as this appeared to be the common perspective of the function of research, and there was limited acknowledgement of the importance of identifying theory and mechanism. This is not to say that consent was not informed, more to say that participants were quite happy to participate, but viewed me with mild curiosity as to why I was so interested in the particular research questions.

Ultimately, the level of abstraction involved in building the mechanism and related interpretation was felt to make respondent validation highly unlikely to be worthwhile in this instance. A further consideration was the considerable time and effort that would be involved on the part of both researcher and participants, which has led others to question whether this approach is worth it in research that involves one-off interviews.(259)

A final approach to enhance credibility is referential adequacy,(221) whereby a segment of data is set to one side without analysis, and later used as a resource to check the interpretations made from the remainder of the data. This was not

conducted in this research, due to the diversity of the contexts and participants studied, with the expectation that each of the interviews might provide a valuable and important contribution to the primary analysis.

Additional approaches to deliver credibility include using well-established research methods (see Chapter 3), employing approaches that encourage honesty in participants, building a reflective commentary (see page 91), acknowledging and reporting researcher's background, qualifications and experience(see page 93), and exploring findings in the context of previous research (see Section 11.5). (260)

Random sampling, and the decision not to use it is worth exploring here. This approach is advocated by some as it is perceived as offering the best chance of capturing the breadth of perspectives in the population of interest. This approach was rejected as the aim of the research was to gather the variety of perspectives in different contexts, and therefore a purposive sampling approach was selected in order that each context could be explored until data saturation was reached (see section 11.4) in each set of circumstances. In addition, the small available population for study did not permit a random sampling approach.

Transferability is the qualitative researcher's equivalent of external validity. It concerns the extent to which the research findings can be understood and applied elsewhere. It can be enhanced by providing a full, or as Lincoln and Guba state, 'thick' description of the context in dissemination of research in order that others can decide whether findings are 'transferrable' to their situation. I have attempted to provide such a description in this thesis, and will do so in any further

dissemination. One of the key findings of this research is that different CHW characteristics may be more or less important in different contexts, and it is essential that anybody reading this research understands this message. In other words, it is unlikely that there is a 'one size fits all' approach to CHW implementation. It is, however, possible for others to apply the findings in their own environment where it is appropriate. For example, if a reader of the research is working with excluded minority groups the research suggests that recruiting ethnically matched workers may increase engagement, but it may not be necessary where groups are more integrated.

Dependability is the equivalent of reliability. Reliability refers to the ability to repeat the research and derive the same results. The context-dependent nature, and the co-production of findings in the naturalistic qualitative research setting mean that it would be virtually impossible to achieve this. Instead, Lincoln and Guba advocated *"accurate and adequate documentation of changes, surprise occurrences, and the like, in the phenomena being studied,"* to determine the dependability of the results.(221) In response, Shenton suggested three criteria that research reports should meet in order to deliver dependability, and this work has attempted to meet them.(261) First, text should be devoted to the research design and implementation process, along with any changes (see Section 3). Second, operational detail about the data gathering process should be provided (also Section 3). Finally, there should be reflective appraisal of the work, which explores the effectiveness of the approach to inquiry (considered in the current section, and on page 93).

Confirmability is akin to objectivity in positive research. Objectivity is not possible in the qualitative research context, as the reliance on human perception and skill in measuring phenomena means that the researcher will inevitably have an influence on the data that is gathered.(222) In this sense, the task is not necessarily to eliminate bias, but to minimise it by attempting to separate the researcher's own attitudes and contextual influences from the data. Miles and Huberman recommend that researchers explicitly acknowledge, engage with and report their own predispositions in order to achieve this.(200) To this end, as part of the 'audit trail' (as advocated by Lincoln and Guba) for this research, I have maintained a reflective diary throughout the process, recording my rationale for my approach, scrutinising and challenging any decisions or inferences, and reflecting on the research relationships and emerging findings. The relevant outputs from this are documented in the methods section of the thesis, and in the current chapter. Analyst triangulation and peer debriefing (defined earlier) were also employed as approaches to enhance confirmability in this work.

11.4) Reflections on the research process

Alvesson and Skoldberg describe two elements to reflexive research practice: interpretation and reflection.(223) 'Interpretation' acknowledges that any reporting of research findings is based on an interpretation of results by the researcher, and as such cannot be taken as unequivocally related to the original source of the findings. In other words, this rejects the notion that findings are facts. The 'reflection' element of the process is an introspective activity that requires the researcher to

examine her psychological, sociocultural, professional and intellectual influences, and to conduct an “*interpretation of interpretation*” in the research. A systematic approach to the reflexive process is an important approach to enhancing research validity and rigour. The following pages explore my personal reflections on the doctoral work.

Reflections on sampling

The methods section details how the initial approach to sampling CHWs and other stakeholders was purposive, until the point of data saturation was reached.

However, for the most part in practice every member of a CHW team was invited to participate (with the exception of the POWs, where there were 34 possible participants), due to relatively small numbers of potential participants. The fact that a more pragmatic, convenience sampling approach was not anticipated perhaps reflects my lack of experience in qualitative methods at the beginning of this research, and a lack of scrutiny of how a purposive approach would play out in the field, though I feel my response to these constraints was appropriate.

A further consideration was my intention to sample until data saturation was reached. I have already related that true data saturation was not established in this work (see page 312). This was predominantly due to selecting a heterogeneous range of services and subjects with relatively small team sizes, where the available sampling frame arguably did not permit thematic saturation before the pool of willing participants was exhausted. This is not a unique experience, and resource

and context limitations are known to constrain the attainment of saturation in this way.(262)

A related issue is that of theoretical saturation. A key concept, borrowed from Grounded Theory,(263) and separate to thematic saturation, theoretical saturation involves reaching a point where the theory that has been developed is fully accounted for by the data. Despite the discussion of challenges in achieving data and thematic saturation, I believe the data fully accounts for the core mechanism proposed in the thesis, and that theoretical saturation has been reached.

Overall, with respect to saturation, it is key to acknowledge the limitations within this work. As Morse has pointed out, this does not render the findings invalid, but rather it sets out where phenomena require further exploration.(264) I have attempted to do this throughout this report, and will do so in any further dissemination, in order that others can understand that limits of explanations provided here, and build upon them in future work.

It is also necessary to consider sample size here. As stated earlier, the governance bodies for this research requested a prediction of sample size (perhaps betraying their quantitative methodological leanings), and the services requested an estimate of how many participants I wished to interview. In truth, it was not possible to predict, yet I complied with this process and provided estimates. Reflecting on this imperfect approach, I note that this gap between research design and reality is not unique. PhD students conducting qualitative research across a variety of disciplines have been found to recruit relatively 'tidy' numbers of participants while at the same

time claiming to be in pursuit of data saturation.(265) Had I not come up against local challenges in meeting my estimates I may have delivered a similarly tidy sample.

While few clients were recruited to interview (of which more shortly), and the client sampling strategy is therefore somewhat academic, there are some reflections on the original approach. The research focused on the perspectives of CHWs, and interviews with clients and other stakeholders were sought for triangulation, rather than to provide complete accounts of the range of manager and client experiences . This was because it was not deemed feasible to fully explore the perspectives of all possible stakeholders within the time and resources available. On reflection, a more appropriate approach may have been to use the data from the worker and other stakeholder interviews to sample clients. If workers spoke about particular kinds of clients perceiving the worker or role in a certain way, then client participants could be selected to explore this for example if data suggested that young people 'connected with' younger workers, then some younger clients could be sampled.

Reflections on recruitment of participants

I experienced a number of challenges in recruiting participants. I expected recruitment to be the most difficult aspect of data collection, but despite this I underestimated the scale of the issue. At all study sites, recruitment of workers took more effort than anticipated (repeated meetings, reminders about the project and redistribution of invitation letters). I employed a range of strategies to maximise CHW participant recruitment. I worked through 'gatekeepers', who were service

managers.(266-269) I also provided face-to-face contact by attending team meetings to introduce myself.(266, 269) During these meetings I attempted to build trust(266, 270) and rapport, answering questions, showing enthusiasm for the services, and engaging in general chit chat with workers. However, the opportunity to do this was relatively limited, and spending more time in the field establishing a relationship with the workers and services may have improved recruitment rates. Unfortunately there did not appear to be any feasible non-intrusive ways to achieve this in the time available, particularly as most workers were spread over multiple sites, many of whom were usually based at home. Despite these difficulties, overall the strategies employed were sufficient to obtain an adequate sample of workers and managers.

It is worth focusing briefly on the service where no workers came forward following initial efforts to recruit, despite a number of face-to-face contacts, during which CHWs present seemed enthusiastic about the research. Through repeated reminders by service managers (the 'gatekeepers'), two did eventually arrange an interview, but despite consent being given, I felt uneasy during these interviews, and made a judgment that there may have been an element of coercion to participate at this site, and, under the guidance of my supervisors, I took the decision to terminate research at this location. It seemed that there was an underlying organisational reason for the lack of engagement at this site, though I have not explored this with the service managers as I perceived that raising this issue may have further impacted on the workers. This experience caused me to reflect on the role of the researcher, and how research activities, including a lack of participation, may have unforeseen

and possibly detrimental impacts on the individuals involved. Others have suggested that recruitment of research participants via managers is a coercion risk.(271) However, it is a common approach to recruitment, and I am satisfied that it was an appropriate method, and that my vigilance for ethical issues enabled me to intervene and prevent harm to research subjects. There is a tension between using managers as trusted gatekeepers, and the risk of coercion that I sensed in this service. I perceive that the local power differential in the pre-existing relationship between workers and managers may have had an impact in this case. The experience has made me even more mindful of the importance of research ethics and governance, and of the need for individual researchers to adhere to good practice and reflect on the implications of their actions in the field.

My difficulties in recruiting clients to the study have already been described on page 89. Looking back at the process, and in light of my new understanding of behaviour change theory, it is perhaps unsurprising that service clients did not come forward, in particular it was difficult to motivate them (as per PRIME theory) to participate via a letter delivered by a third party. In the future, I would put a case to ethical review bodies for the need to be permitted to contact clients directly, in order to establish some sort of relationship from the outset rather than being an anonymous name on an invitation letter. This would also overcome the need for CHWs to act as gatekeepers. I had doubts as to the enthusiasm of the CHWs who passed recruitment information on to their clients. This is not to criticise them, however; I have already related how I perceived CHW participants and managers to grasp the theoretical, rather than effectiveness-based aims of the project, and I believe that

this is related to popular perspectives on the function of research in health and social care. Asking these individuals to communicate the nature of the research to their clients was perhaps too ambitious an aim.

In addition to the lack of direct contact with clients, and the conceptual challenges I perceived, it is a fact that many of the client populations concerned came from disadvantaged or minority groups. These populations have traditionally been challenging to recruit to research, just as they have often displayed lower engagement in healthcare.(272) Involving the client group in the project may have improved recruitment in this research, but as the findings demonstrate the population was diverse and spread across four services, so this task was deemed beyond the scope of this project. A further strategy to improve recruitment is the offer of incentives, and with hindsight this could have been incorporated into the programme, though no specific funding was available to deliver it. Incentives, provided they are not so large as to be coercive, have been shown to improve participation, in particular in deprived populations.(273) In terms of the underlying reasons for low recruitment, the COM-B framework that has been used to explore the data from this research provides insights into why clients did not choose to participate, mirroring many of the issues raised around engagement in support from professionals. This has led me to reflect on my role as a researcher, and to consider whether my characteristics (for example white, affluent, professional) might negatively impact on recruitment and engagement in the interview process. It may be, just as it appears with CHWs, that sometimes more similar, or less powerful researchers are necessary. This issue is discussed further shortly.

This has been my first experience of attempting to independently recruit members of the public to research, and I naively assumed that there would be a greater willingness to participate. I suspect that this is due to my previous experience as a doctor, where there was much greater reciprocity with patients (they participated in the consultation, I provided treatment), and the power relationships were quite different (I was the gatekeeper to treatment). I had decided not to highlight my medical background in the research materials (though not concealing it) for fear of creating a power differential in any subsequent interviews, as others have noted that a power differential can impact on the research relationship.(274) Even if I had advertised the fact that I was a medical professional, I suspect that it would not have made any real difference to recruitment levels (I was not offering any care in return), and I deemed the potential negative impact on interview rapport more costly.

Reflections on data collection

The findings of this research have brought my role as a researcher into sharp focus, as many of the requirements of a competent qualitative interviewer relate to the characteristics that appear to improve CHW quality. Research interviews, just like CHW support, are unusual, created social interactions that most individuals do not encounter regularly. As such subjects and clients will experience uncertainty regarding what is expected of them, and what might occur. It is the job of the CHW or researcher to communicate the role, and the expectations of the client.(201) This was easier in some situations than others. A particular challenge was explaining the theory-building nature of the work, and the fact that outputs would not provide

information about the effectiveness of the interventions studied. Past experience working on the Scoping Study of the Health Trainers Initiative had made me very aware of the need to manage expectations of effectiveness outcomes, and to emphasise the intended product of the research.

A key aspect of conducting qualitative interviews is rapport building. This is described in the methodological literature as involving the establishment of trust by demonstrating respect, empathy, humour, interest in the participant's story, avoiding exerting power, and exhibiting humility.(201) I feel that my attempts to do this were largely effective, though they certainly grew in competence over the course of the data collection period. Certainly many participants appeared open in their communication, with a number sharing deeply personal or distressing experiences, or showing emotion. I feel that I handled these situations sensitively, and my medical training and experience had allowed me to develop skills in dealing with emotion and responding appropriately to others' distress. One limiting factor in building trust was time. For some participants, only an hour was available to meet, discuss the project, gain consent, and conduct the interview. I found this caused me to devote less time to the initial rapport-building process due to concerns about finishing promptly. On reflection this had a negative impact on the quality of the relationship, and thus on the data collected. In retrospect, it would have been more fruitful to spend the time on building the relationship and gathering less data of a better quality. Similarly, in a minority of interviews the venue proved a barrier to rapport-building. In particular, one interview was conducted in a supermarket cafeteria, and background noise, interruptions by other individuals, and the general

activity in the environment proved a significant distraction for myself and the subject, and I feel prevented us from giving one another our full attention. I had been hesitant about this venue, but had agreed as the service manager had made every effort to secure an alternative and there was none. In future I would attempt to reschedule in this situation, as on reflection it was an inappropriate setting.

Throughout this research I have been conscious of my own roles and identity. Chapter 3 touched on the questions raised by my medical professional status, and I worried that this may influence the perceived power differential during interviews, making participants anxious or less likely to fully engage. I wanted to place the participant at the centre of the interaction as an expert in their own experience. Qualitative researchers, regardless of background, face challenges in establishing and maintaining an equal relationship(274), and my qualifications were another potential barrier. I was also concerned about the feasibility of encouraging subjects to describe their attitudes to professionals when I myself was one. I discussed this with my supervisors, and made the decision not to actively disclose my background, and instead to present myself as a 'researcher', though I did provide detail if participants asked.

A further consideration was my socio-demographic characteristics (income, education, ethnicity, regional identity), which were obvious, and often quite different to those of participants. This led me to reflect on how this might influence the power balance, particularly with the two service users whom I interviewed. It has been suggested that it may be appropriate to match researchers with their

subjects along more sophisticated socio-demographic lines.(275) The parallels between my research, and health improvement in practice (the subject of my research) were not lost on me. It has been said to me that all too often in health promotion, white middle class women work with people who are, on average, less white and less middle class. Here I am a white, middle class, female conducting research with (on average) more diverse, less affluent CHWs. One strategy to address this is akin to the CHW approach; some academic teams have recruited and trained what they refer to as 'lay' researchers who share characteristics with the research subjects.(276) This is not without its own challenges, and was not a possibility due to the resource constraints in this work, but it is certainly worthy of consideration for conducting further work in this field, particularly where the perspectives of service users are sought. One caveat to this is that, in parallel with the findings of this research, matching researchers and subjects can result in concerns about confidentiality and social acceptability of behaviour, along with assumptions being made about the amount of information that subjects need to give to ensure comprehension.(275)

My changing private identity was also a consideration over the course of data collection. As mentioned earlier, I became a mother during this study, and had new experience of two pregnancies, births, breastfeeding and other aspects of parenting. These experiences were often closely related to the aims and activities of the CHW services studied. I intuitively felt that disclosing elements of my experience might facilitate rapport building and trust with participants, particularly where my experience was relevant, and others have noted its value in demonstrating

reciprocity and developing intimacy. (277, 278) In addition, in the Peer Support service I frequently interviewed participants in the presence of their children, who (understandably) interrupted proceedings to have their own needs met. I perceived my own disclosed experience of motherhood assisted in communicating my understanding and acceptance of this. However, this was a significant departure from my previous professional behaviour, where I avoided intimacy with patients, much as some of the professional participants in this research described. This is something I have since explored further in the context of CHW engagement with their clients and AUM theory. During the research I was mindful of the fact that self-disclosure can lead research subjects to assume knowledge on the part of the interviewer, and it can also result in participants' responses being tailored to fit with the imagined attitudes of the researcher.(201) I made decisions about self-disclosure on an individual basis, balancing the benefits of relationship-building with the risks of unduly influencing the data.

A final point of reflection on the data collection was my communication style. As an inexperienced qualitative researcher, I found putting guidance into practice challenging. For example, many advocate avoiding extraneous remarks (such as 'yes, I see', or 'okay') which may close down the discourse, and lead the participant to perceive the researcher's question to have been answered.(201) In practice I found this difficult, as my motivation to provide reassurance and build rapport with participants was subconsciously influencing me to demonstrate that I understood their perspective too early. I identified this issue along with my supervisors by scrutinising early interview transcripts. I then made concerted efforts to minimise

this behaviour on my part, and kept the issue under constant review. I feel that my interview conduct has improved, though there is still some way to go to eliminate these limitations entirely.

Reflections on data analysis and theory development

My first challenge in the analytical process was managing the huge quantity of data produced. I had amassed over one thousand pages of transcripts, field notes and reflective notes, and managing and synthesising was a somewhat intimidating task. However, by immersing myself in the data and taking a rigorous, systematic approach to coding and sorting it, I was able to appreciate and enjoy the unique insights that qualitative research affords.

I selected to construct my framework in a Microsoft Excel spreadsheet. While my choice was relatively unusual among my postgraduate student cohort, I felt that it was appropriate. A key reason for this was the fact that my supervisory team was experienced in using Excel to perform Framework Analysis. The team had a track record of producing high quality research in this way, and I aimed to learn key skills from them. I also perceived that introducing software that my supervisors did not use may present a barrier when it came to analyst triangulation. My reading of the literature around the use of computer packages for analysis has led me to perceive them as merely tools, and while they may simplify the process, their absence does not hinder the production of quality research.(279) While I plan to explore their use in future projects, the priority in this research was to build high quality research skills

under the supervision of experienced seniors, which did not require the use of computer-assisted qualitative data analysis software (CAQDAS).

A further reason that I decided not to use data management software relates to my learning style. During my previous research experience with Health Trainers, I found that I preferred to revisit content *in situ*, as a hard copy with notes, each time I was exploring a particular theme, helping me to retain the sense for the extracts of interest in their original context. On reflection, I believe that this is due to my preference for visual learning,(280) and the ability with a hard copy to form a 'picture' of the content in my mind's eye, allowing me to navigate a physical document and any handwritten notes with relative ease.

In chapter 3, I mentioned how I adopted two of Richie and Lewis' essential requirements for Framework Analysis, namely using *ad verbatim* text and including everything in the analysis, even if it appears irrelevant. However, I found that I rejected their third essential requirement', that interpretation should be kept to a minimum at the data management stage (in order that subsequent analysis always returns to the original data). I found that I was intuitively reflecting on the data throughout the research process, and I feared that if I did not make note of these reflections they would be lost when I returned to the data. While I recognised the rationale behind minimal interpretation, I felt that it was important to acknowledge and record what was going on, rather than ignore or attempt to suppress it. I also felt that being candid about my emerging thoughts would enable me to separate them from the data. However, I was clear with myself that any subsequent analysis

should always return to the original content in context, and within the framework spreadsheet I colour coded data according to whether it was *ad verbatim* quote, summary or interpretation.

Building descriptive accounts, and particularly developing typologies, was challenging due to the sheer heterogeneity in the accounts in the data. A further challenge here was the fact that data collection and formal analysis were not performed in the iterative way I had imagined, and it was not possible to theoretically sample new subjects, and explore emerging phenomena on an ongoing basis. This meant that there were some incompletely explored concepts, though it is perhaps naïve to assume that this project alone could ever have fully accounted for the range of perspectives and experiences in the services due to resource and time constraints. The data still provided a very rich picture of the breadth and depth of CHW characteristics and functions.

The final stage in analysis, the building of explanatory accounts, was more time-consuming than had been anticipated, and drove home the level of personal, reflexive involvement of researchers in the production of qualitative study findings. The role of the supervisory team in this process was crucial, and without it I may not have reached the level of abstraction that enabled me to really see 'what was going on' across the services studied. Others have noted the need to have skilled, experienced researchers overseeing qualitative work,(215, 279) and now my own experiences have demonstrated to me that intellectual rigour and skill is of paramount importance in the production of high quality findings.

11.5) Revisiting the literature: what this study adds

This section revisits the findings of the earlier literature review, and explains how this doctoral research builds upon existing knowledge.

Defining and describing CHW interventions:

CHWs are heterogeneous, and there are many terms used to define and describe them. The dimensions of CHW roles are not well-described or understood.

Furthermore, the heterogeneity and insufficient description has hindered the development of our academic understanding and evaluation of this group of workers.(8, 56) This is a particularly acute challenge in England, where the adoption of the common international term 'community health worker' is patchy at best.(56)

While there is heterogeneity, there are common threads running throughout these interventions, and to aid understanding it is necessary to move beyond ambiguous labels and come to a common definition that can be used to define and describe any CHW intervention, much as others have done to describe heterogeneous psychological approaches to behaviour change. This study proposes consistent use of the term 'community health worker', along with a taxonomy of CHW characteristics (see Appendix 13) that can be used in the design, evaluation and reporting of this group of workers. In particular, with respect to client-worker similarity, it presents a set of terms that are far more objective and less open to interpretation, and suggests that they are adopted in place of confusing terms such

as 'peer', 'lay', or 'community' (while acknowledging the compromise of the presence of 'community' in the CHW moniker).

CHW health improvement mechanisms in the literature:

The mechanism of action of CHW interventions is not well-understood. Services are often evaluated and reported in terms of behaviour change and health endpoints, without in-depth scrutiny of the route by which they were achieved. In the literature some authors refer to CHWs as delivering 'social support' and improving client engagement, but the fine details regarding what these processes involve is lacking. An example is the paper by Durant et al, published subsequent to Phases 1 and 2 of the literature review for this thesis, which reports that CHWs provide social support, but not why CHWs may be well-placed to do so.(236) This research has provided supplementary evidence that CHW activities fall under the banner of 'social support', and there is a well-established theoretical and empirical research base from the field of social psychology upon which exploration of CHW mechanisms can be based. While other authors have described CHWs as providing social support, and some have explored the discrete aspects of this concept, this research adds a new dimension, in that it identifies three discrete elements in a generic social support-mediated health improvement mechanism that can apply to any CHW intervention: needs assessment, social support provision, and client engagement. CHWs appear to be undertaking work that is parallel and complementary to the activities of traditional professionals and other workers. It often mirrors natural social support processes that many individuals enjoy within their social network, and

also frequently delivers a formal role that has never been provided to the population before.

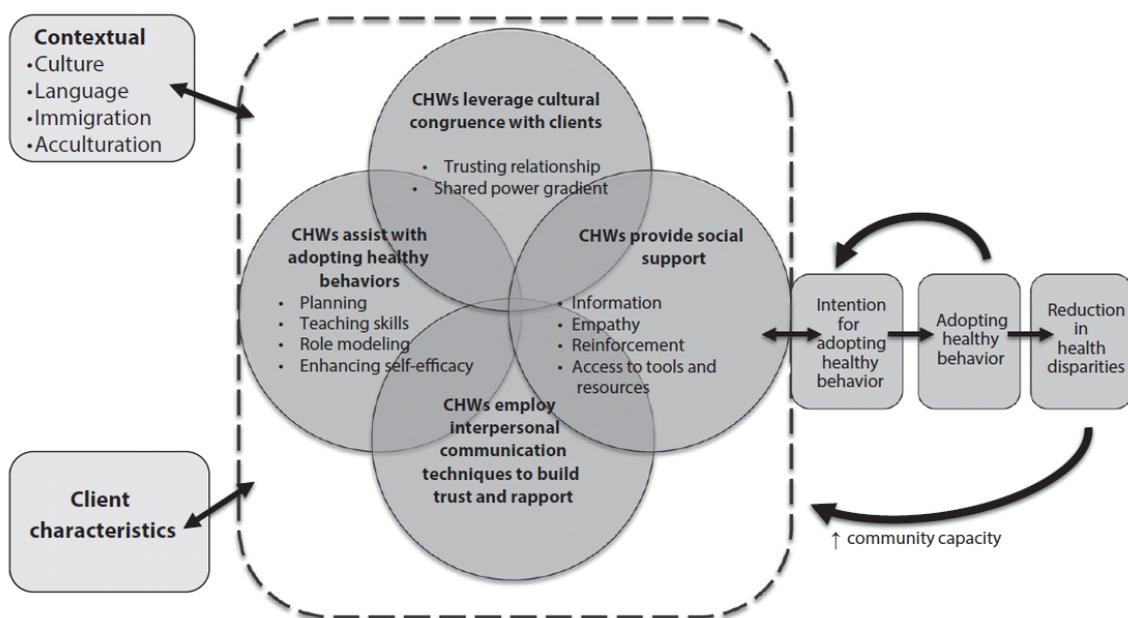
An important recent paper by Katigbak et al, published in the American Journal of Public Health, is worth exploring further in this context. Their work is based on 23 interviews with CHWs, CHW managers and clients in a US CHW service for the Filipino community, and it presents a proposed mechanism for health improvement mediated by social support.(281) Katigbak's work was published at the end of my doctoral study (May 2015): as it appeared once my primary analysis and write up was complete, it was deemed appropriate to include and reflect upon it in the discussion chapter of the thesis. This work demonstrates how researchers are still working to identify how and why CHWs deliver health improvement, and how social support is seen as a key element. The authors' mechanism is presented in Figure 21. It suggests that the key mediator of health improvement is the adoption of healthy behaviours by clients (Katigbak refers to them as 'patients'). This behaviour change is mediated by four aspects of CHW activity: direct behaviour change assistance, leveraging of 'cultural congruence' by CHWs, provision of social support, and the employment of interpersonal communication techniques. Client characteristics and wider contextual factors (culture, language, immigration and acculturation) influence this process, though the authors do not specify how. There is some overlap between this recent work and my own proposed mechanism for CHW health improvement, and it is reassuring that others' findings chime with my own. However, I feel that the mechanism presented in this thesis provides a more complete picture of the potential CHW health improvement mechanism. The mechanism, and CHW 'person'

and 'role' categories presented in this thesis can be contrasted with the four elements of Katigbak et al's framework as follows:

- "Provision of social support" aligns with my 'core task' of social support. It is presented by Katigbak et al as one of four dimensions of the worker's activities. However, the mechanism presented in this thesis posits that social support is the primary mechanism. Of the three other dimensions presented by Katigbak, I posit that two concern worker characteristics (similarity and communication skills) and the third can be classified as a form of social support (behaviour change). This is explained further below.
- Katigbak et al describe how CHWs "leverage cultural congruence", and this aligns with my CHW characteristic of 'similarity to client'. Katigbak et al describe how CHWs can use their cultural congruence (including "A shared set of common values, beliefs, language and cultural identity, as well as a shared immigrant experience") and how it was associated with increased, trust, comfort, a sense that clients could relate, and an ability to incorporate cultural values into support of clients. The findings presented in this thesis also demonstrate how aspects of 'culture' (language, ethnic background, age, socioeconomic status etc.) and shared experience (as in Katigbak's shared immigrant experience) appear to play a part in the support mechanism, but the thesis presents a more granular exploration of worker characteristics (beyond cultural congruence) and of their role in the mechanism.
- Katigbak's "assistance with adopting healthy behaviours" is encompassed within social support in my analysis. This incorporation of behaviour change support into social support is a key concept within this doctoral work, and a key point of

departure from the general CHW literature. The Katigbak mechanism centres around behaviour change outcomes, and other potential outcomes of social support (e.g. change in client psychological wellbeing, material resources or environment) and this thesis argues that focusing primarily on behaviour change may result in missed opportunities in research and practice.

- Interpersonal communication techniques aligns with my own ‘communication skills’ category within the person characteristics domain: CHWs are recruited to have, or are trained in communication skills. Katigbak et al relate how this builds trust and rapport, concepts which align with the ‘client engagement’ aspect of my own mechanism. The doctoral work takes this further by making engagement a central feature of the mechanism, and relating how communication skills (whether naturally acquired or taught) can improve engagement with the social support mechanism. It also provides additional exploration of a much wider range of CHW characteristics impact on engagement, beyond ‘cultural congruence’ or communication skills.



**Figure 21: Conceptual framework of CHWs and patients as partners in health
proposed by Katigbak et al(281)**

CHW mechanisms – ‘needs’ versus ‘assets’

As stated earlier, no existing examples have been identified which separate CHW social support into its constituent parts as presented in this thesis (needs assessment, support provision, client engagement). The mechanism presented in this work implies that clients have a ‘need’, or deficit on the client’s part, and that services’ primary function is to determine and address needs. Similarly, CHW approaches described in the literature focus on needs (for treatment adherence, for lifestyle change, for help to access services etc.). However, there are alternative approaches to addressing health and wellbeing in populations. In particular, assets, or capability-based approaches focus on what a population has, rather than what it lacks.(282) It is grounded in the theory of salutogenesis, which explores factors which generate and enhance individual and community health and wellbeing,(283) which can be contrasted with epidemiology, the study of patterns of disease and the factors which cause it. Here I will explore what assets-based approaches are, and reflect on why an assets-based dimension was not identified, and potential solutions going forward. ^a

^a Acknowledgement and thanks to Professors Hoddinott and Proctor, who examined the thesis and highlighted the deficit-focused analysis and stimulated this reflection on the place of assets-based approaches in CHW programmes.

Assets-based approaches focus on the existing capabilities and resources of an individual or a population. Foot and Hopkins describe assets as including the following:(282)

- *“The practical skills, capacity and knowledge of local residents*
- *The passions and interests of local residents that give them energy for change*
- *The networks and connections – known as ‘social capital’ – in a community, including friendships and neighbourliness*
- *The effectiveness of local community and voluntary associations*
- *The resources of public, private and third sector organisations that are available to support a community*
- *The physical and economic resources of a place that enhance well-being.”*

Foot and Hopkins also provide a simple comparison of deficits- versus assets-based approaches, adapted in Table 17. Their 2010 report, and subsequent 2012 report by Foot(284) suggests that health and wellbeing promotion is in transition, from the ‘old way’ of doing things, a deficits approach, to a more enlightened assets-based approach. It has been suggested that the evidence of effectiveness for this approach is as yet *“anecdotal”*, that it does not address society’s inequalities and wider determinants of health.(285) However, it is an emerging and increasingly used approach, and assets-based theory provides a very useful lens through which CHW approaches might be explored.

Deficit approach	Asset approach
Start with community deficiencies/needs	Start with community assets
Respond to problems	Identify opportunities/strengths
Provide services to users	Invest in people as citizens
Emphasise the role of agencies	Emphasise the role of civil society
Focus on individuals	Focus on community/neighbourhood/common good
People are clients/consumers receiving services	People are citizens and coproducers with something to offer
Treats people as passive, 'does to'	Assist people to take control over lives
'Fix people'	Support to develop potential
Implementing programmes is seen as the solution	People are seen as the solution

Table 17 Defecit and assets-based approaches, adapted from Foot and Hopkinson(282)

I have been aware of assets-based approaches as a result of my former training in public health practice, yet during the course of the doctoral study I did not make the connection with CHW research and practice, and this has led to some soul-searching. Revisiting the literature I could not identify descriptions of assets-based approaches, and this may be due to differences in the terms used in published work. Indeed, MacLean(286) relates how often the nomenclature does not include the words 'assets-based', but does demonstrate the concept, citing examples including Paulo Friere's work, " 'community engagement', 'community development', 'enablement', 'recovery', 'self-management', 'community empowerment' and 'mutuality'" – some of which were reported in the studies reviewed as part of the current study, for example, Lhussier, Mock and Cornell. (75, 105, 120). It is also the case that studies are not assets-capability-focused, even when nomenclature is taken into account. For example, a 2014 paper by Ingram et al presents a model which focuses on 'problems' and 'solutions' in the community.(186)

There are some other reasons why I may not have explored assets alongside needs. My background as a doctor, trained in public health in the era of focused inequalities action, and where formal needs assessment was prioritised, and disease outcomes the focus, no doubt makes me more likely to home in on deficits, and 'doing to' communities, despite my own sense that I was not so paternalistic in my thinking. Similarly, my research participants, working within the same system, and employed to address perceived needs, tended to talk about client needs and problems rather than their existing resources and networks. Had I selected different services for study, assets-based approaches may have emerged.

Neglecting the concept of assets brings some potential limitations in the current study. Neither the study design nor my research activity (both literature review and empirical work) considered assets-based approaches, and opportunities to gather, analyse and present relevant data may have been missed. This in turn may mean missed opportunities to contribute to the knowledge base in this area, and potentially benefit service users and providers.

In terms of the work presented here, a simple adjustment to the terminology in the mechanism may improve matters: the 'needs assessment' aspect of the mechanism could be broadened to 'assets and needs assessment'. I do feel that assessment of needs is still justified, as the clients of the services studied, particularly the more vulnerable individuals, had immediate needs to which CHWs could respond, though the parallel assessment of assets would provide a more positive focus, and uncover opportunities to support and empower clients and communities. Beyond the current

study, this issue could be explored further through secondary analysis of the original data to identify whether there are in fact accounts of assets-based work by CHWs, and further work designed to explicitly consider assets from the outset. I will most certainly be engaging further with the emerging policy and evidence base in this area of research and practice.

The impact of CHW similarity to the client on the intended health improvement mechanism:

The published research frequently describes CHWs as sharing characteristics with clients. Similarity has been reported to improve social support provision by making workers more culturally competent, in that they understand the lives and situations of their clients. There are some examples where the function similarity is well-described, such as where workers with shared experience can act as role models or share stories.(92-94, 281) However, statements are frequently made without evidence to support them, such as where shared characteristics are assumed to lend credibility to, or increase cultural competence in workers.(56, 137, 138, 287, 288) Others have warned of the inappropriateness of making assumptions about the nature, and relevance of similarity.(82, 107)

This thesis has examined dimensions of similarity in detail, and has provided the first theory-based hypothesis for the mechanism of CHW social support and client engagement that encompasses the full range of determinants of behaviour as outlined by West and Michie.(243) It offers insight into why, and when similarity might be important, and when it may not be so essential. It reiterates the findings of

others' work, which demonstrated that, despite apparent similarities, clients and workers are often different. It has also shown that in some circumstances CHWs may require few if any shared characteristics with their clients in order to deliver appropriate support, supporting Durantini et al's findings around experts sometimes delivering better behaviour change than CHWs despite differences.(83) It has also suggested that similarity may be a disadvantage in specific circumstances. This work provides insights into how services can respond to a lack of similarity where it is deemed advantageous.

The findings of this research suggest that where similarity is deemed unnecessary, it may be because it has no specific function in the particular mechanism being delivered (for example POWs do not need to be similar to their clients to deliver welfare benefits advice), building on Simoni et al's previous work on 'peers'.(82) However, this research also suggests that the lack of need for similar workers may be because CHWs have other characteristics that compensate for a lack of similarity to the client (even though, if present, similarity may be of use). It may also be that workers have acquired sufficient knowledge about the client group to provide culturally competent support, as is frequently reported as an aim in the literature with respect to the cultural competence of health professionals.(135) Similarity appears to be one approach to acquiring knowledge, skills and personal qualities that enable a CHW to assess need and provide support. In some cases it provides a support opportunity that would not be available to others, such as the sharing of personal stories and role modelling (also observed elsewhere in the literature).(92-94, 281) It also appears to be a route to improving engagement, as it may enhance

credibility, provide a more positive experience for the client, reduce client fear, discomfort, and awkwardness, and reinforce client identity. This finding builds on Shiner's research on 'perceived personal similarity' and engagement in doctor patient relationships,(78) Kreuter and McClure's work on culturally matched health education,(111) and Lhuisser and Carr's work on power in health promotion(75), along with Katigbak et al's recent work with Filipino CHWs in the US(281).

The impact of other CHW person characteristics on health improvement

Many authors have explored the characteristics that assist CHWs in improving health beyond client-worker similarity.(37, 73, 95, 108, 129, 141, 289) Knowledge, skills, personal qualities have all been described in this context, but their direct impact on the mechanism was unclear. There was some insight into the role of volunteer status in terms of service delivery and client engagement. The function of characteristics such as empathy, or good communication skills, had never been unpicked in detail, and the relevance of workers' values had not been scrutinised.

This work indicates that characteristics of CHW recruits may have a positive impact on the intended health improvement mechanism, even where workers and clients are not similar, as other characteristics compensate. It demonstrates how similarity is one of a number of relevant characteristics, and shows how different characteristics may be more or less important depending on the context. It shows that many relevant characteristics can be acquired through training or experience. It repeats some of the benefits and drawbacks to delivering support using volunteers.

It also raises the issue of workers' moral stance on their work, and emphasises how health promoting activities are not a value-free zone.

The impact of CHW role characteristics on health improvement

Certain aspects of CHW roles have been afforded more scrutiny than others in the academic literature. The support setting has already been described as impacting on engagement.(30, 141, 158, 159) Time was welcomed by stakeholders but its role was not clear.(45, 82, 91, 153) Client focus was seen as a positive aspect,(8), and have been associated with improved self-esteem.(60) Continuity had been observed to have an impact on client outcomes,(42) but it was not known why, though there were some insights from the doctor-patient literature.(152) The relative limited responsibility of CHWs had not been considered; limited responsibility is a novel concept arising from the doctoral research presented in this thesis. The provision of specific CHW functions, such as bridging and behaviour change is often described, though with little recognition of the overall mechanism (needs assessment, support provision, client engagement).

The empirical work presented in this thesis provides a more coherent framework for understanding the impact of CHW roles, and many insights into how these role characteristics operate to improve health. In particular, it highlights how relatively underreported factors such as setting, time, continuity and limited responsibility may be key influences on the effectiveness of the intended social support mechanism. It also stresses the often unique function of CHW services, explicitly providing social

support functions and focusing on what clients need, rather than what health leaders desire to provide.

Conceptualisation of CHWs in the health and social care landscape

In the US, the Affordable Care Act and the general policy direction is leading to more industrialised implementation of CHW interventions, yet it has been noted that the academic approach to this group of workers is to view them as interventions, rather than an occupational group, and to evaluate them as such.(8) Ingram et al have advocated that CHWs should be considered health professionals in their own right, with a specific set of qualities that give them a unique place in the healthcare landscape. In the English context, South et al have suggested a similar approach.(56)

This work reinforces the position that CHWs are not interventions, but are a group of workers with a range of possible characteristics who can be employed with the aim of delivering health improvement in a range of ways. Just as doctors and nurses perform a variety of duties, and have particular context-dependent characteristics (knowledge, skills, time, continuity etc.), so indeed do CHWs. In one notable example of the potentially wide role for CHWs, beyond the usual behaviour change focus, and published since the original literature review, Sabo et al have developed a framework for 'CHW advocacy', under the headings 'organizational advocacy' (to drive change in their own service for CHWs and CHW clients), 'civic advocacy' (to drive change in the community structures and services) and 'political advocacy' (engaging with elected officials to drive political change).(290) They recommended

that policymakers and service leads design CHW training and services to encompass these roles, to maximise their potential.

This work adds to our current understanding by providing more detailed information about how characteristics vary, and about how they may impact on the health improvement process. It also demonstrates that CHWs are often performing a function in parallel to traditional professionals, and occupy a discrete role that is of unique benefit.

Implementation of CHW services in ‘epidemiological’ communities

The literature suggests that CHW services are often implemented in ‘epidemiological’ communities that fail to recognise the differences between groups, and to conceptualise service needs in terms of population-level health problems that require solutions, and this has been highlighted most recently by Arreola et al (since the primary literature review conducted for this doctoral work). (107, 291)

This research supports this notion, and shows how recruitment of ‘community members’ to serve other ‘community members’ can be misleading (though well-meaning), and services need to be more candid about who and why they are recruiting, and explore their relevance in their specific context. This is the first time that this phenomenon has been reported in the English context.

Implementation of CHW services in superdiverse communities

Few have identified or explored the relevance of superdiversity in CHW support, and it has been highlighted more as a research agenda than an area with any sound evidence base.(107) This is perhaps because it is an emerging issue, and is most acute in the large conurbations that have experienced mass migration since the latter part of the twentieth century. The fact that one of the services studied in this research was based in such an area offered a valuable opportunity to explore the issue, and it has provided valuable insights as to how services can be delivered successfully where client groups are significantly heterogeneous. It highlights the inadequacy of viewing populations in terms of their demographic or experiential characteristics, and the impossibility of providing tailored, matched services to every client.

11.6) Recommendations for further work

This study has taken forward our conceptual understanding of how CHWs might deliver social support across a range of contexts. However, the accounts gathered to produce these findings were almost exclusively from workers and managers in these services, and there is a need for further empirical data to triangulate and expand on the mechanisms that this research has suggested, and identify whether the CHWs' aim to deliver health gain are in fact realised. A clear gap in knowledge is of client perspectives of CHW services, and how service characteristics impact on client perceptions of the quality of support received, and upon client willingness to engage. This issue would lend itself to qualitative inquiry with the client group. Following on from the reflections on the research process in this work, careful consideration would need to be given on the most appropriate approach to recruitment and data collection with this group.

Recommendation: Qualitative exploration of client perspectives of support and willingness to engage to confirm or refute the findings of this study

In addition, it is necessary to verify whether the kinds of social support that workers describe providing are actually delivered in practice. Direct observation of the process, along with collection of process and outcome data relevant to the social support functions would address this. As has been achieved in this research, any further work should consider a range of contexts, with a view to testing hypotheses concerning the mechanism of action and the influence of service characteristics. It

may also be possible to measure outcomes of the social support process. Along with straightforward outcome measures such as client attendance or weight loss, it is likely that empirical methods of measuring perceived and received social support such as those reviewed by Cohen et al may be applied here.(172)

Recommendation: Observational studies of the social support process and outcomes in practice, to confirm or refute the findings of this study

CHW interventions perform other *functions* in addition to social support, including community outreach and participation approaches, activism on behalf of the population, clinical care, and building other stakeholders' knowledge and skills in meeting population needs. These functions were not core elements of the services selected in this study. This does not mean that they are unimportant, and require similar treatment to that which social support has received here. It is likely that three elements of the social support mechanism (needs assessment, support provision, client engagement) can be applied to other aspects of CHW work, and it may provide a useful framework for further analysis. The diagram below indicates how the mechanism proposed in this thesis might be developed to encompass the full range of CHW functions.

Recommendation: Work to define the mechanism and determinants of CHW health improvement through routes other than social support (community development, activism, clinical care, and service development).

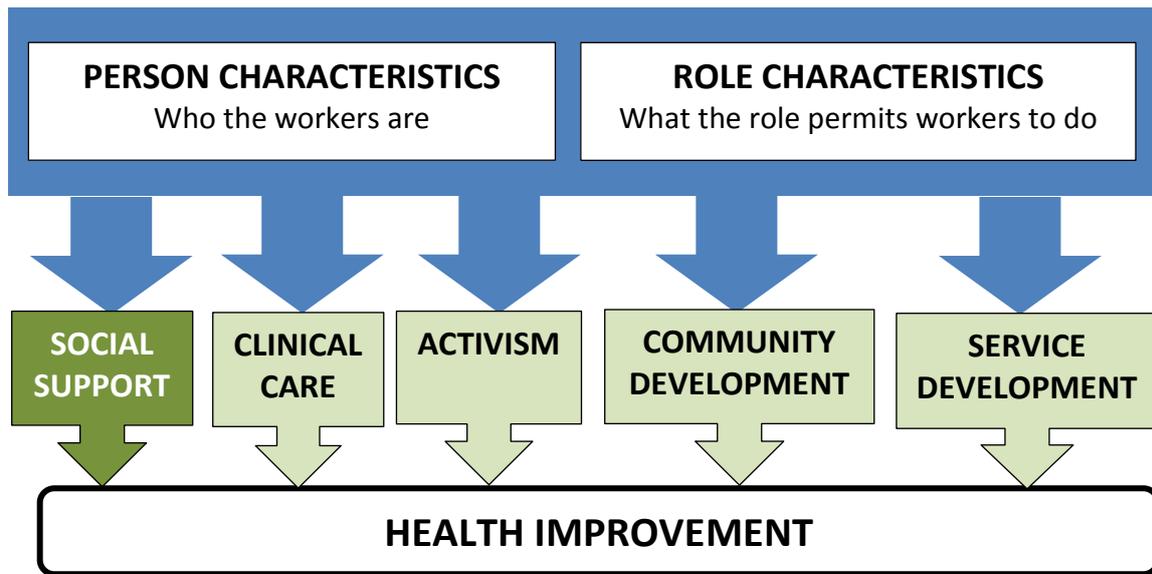


Figure 22: A proposed mechanism for the full range of CHW health improvement approaches

The work presented here could not encompass the full range of populations or health issues and CHW models due to local availability of suitable services, and limited capacity. The mechanisms and influential characteristics constructed from the data in this project should be used to explore other contexts, and further develop the theory, as it is likely that there are undetected phenomena yet to be discovered. In terms of the target groups and issues, this work focused on interventions in England, with largely young, female populations, and many of the interventions concerned pregnancy and parenting support.

Recommendation: Exploration and development of the proposed health improvement mechanism in different populations and tackling different health issues.

In terms of models, the services studied predominantly adopted group settings (the POWs being the clear exception, with a mostly 1:1 model). Despite this each – perhaps less so M&T – also offered the opportunity for one to one interaction, and it is possible that this dual approach may offer more benefit than one to one alone. Most workers were paid, and they were not ‘embedded’ in their target populations (i.e. they were not working within their social network). Further examination of alternative approaches of CHW delivery are necessary to build upon the findings in this research.

Recommendation: Exploration and development of the proposed health improvement mechanism with other CHW delivery models.

11.7) Implications for policy and practice

This section of the thesis provides recommendations across the service policy, design, implementation and evaluation contexts

Designing and implementing CHW services

This study has shown that the apparent needs of populations do not always match with the expressed need in practice, and service aims can be interpreted variably by different stakeholders. It reinforces the requirement to conduct adequate needs assessment before design and implementation of services in order to maximise effectiveness and prevent surprises. This is a central element of public health service function in modern-day English health services.(292) Stakeholders should be agreed on the aims of the service, to ensure the ultimate design addresses all parties' expectations. Flexibility in organisations is advantageous where needs are complex and emerging, permitting iterative service development to respond accordingly. CHWs can be a key resource, and may contribute to the needs assessment process, and their knowledge of the client group should be valued.

Defining the target population for CHW services can be challenging in environments where organisations are expected to deliver services along administrative boundaries that are unrecognisable to the client group. It is important that practitioners are wary of 'epidemiological community' issue, and to scrutinise whether the service is meeting the needs of all those targeted. It is likely that in

diverse communities it will not be possible to deliver services that are tailored to all potential clients.

There is a wealth of literature on CHW interventions, and it can be challenging to make sense of the evidence and understand the key characteristics of effective interventions. A key recommendation from this work, is that 'off the shelf' interventions will rarely be suitable, and that CHW services need to be designed with their specific context in mind. Services should take their population needs and organisational aims as a starting point, and build a context-specific service, rather than replicating others' approaches directly.

This work has identified that much if not all of the functions by which CHWs aim to deliver health improvement in the services studied can be defined as social support. When designing services, it is suggested that an intended mechanism of health improvement is defined at the outset. While this study can only explore the social support mechanism in detail, services should consider the wider range of possible CHW functions, for example those set out in the 'further work' section of this chapter, which includes community development, activism, clinical care and service development functions as appropriate.

Organisations need to consider the worker's capacity to needs assess and deliver support, along with the client's likely capacity to engage with the service. Barriers to support delivery and client engagement should be considered and 'designed out' as far as possible before implementation. Engagement barriers go beyond intuitive

environmental constraints and social attitudes, and West and Michie's COM-B Framework could prove highly effective in identifying threats to engagement. It is possible that the full potential of CHW services is not being reached. The characteristics of CHWs and roles should be actively considered at the design stage, to give the greatest chance of producing a service that is fit for purpose. In short, practitioners should draw on theory to design and define CHW services.

Choosing, recruiting and developing workers

Organisations should be explicit regarding the relevance of 'similarity' of workers and clients. Where it is deemed to be important, it should be explored fully, with consideration of potential differences between apparently similar groups, and whether the client group will concur with perceptions of similarity. It should also be noted that similarity is not fixed, and may change over time. Similarity is by no means required to deliver a quality service, and its function should be justified; other worker characteristics such as empathy or communication skills might compensate for low similarity. Indeed, in some situations characteristics other than similarity may be more important. However, it is likely that similarity is particularly important in delivering support to, and engaging with excluded communities, or where experiential knowledge impacts significantly on credibility of CHWs and their messages (such as in breastfeeding). Where it is not possible (or even desirable) to universally match workers and clients, it may be possible to develop a service that fosters cultural competence in CHWs. This can be achieved through training, recruiting a diverse group, recruiting individuals who have been raised in a diverse environment (and have 'naturally' acquired cultural competence), encouraging team

members to actively develop colleagues' cultural competence, and deploying workers in a range of cultural environments to build their knowledge and experience.

Knowledge, skills, personal qualities and volunteer/paid status should all be considered alongside similarity. These characteristics can be considered in the context of needs assessment findings to determine the most important aspects to implement. Often, characteristics can be enhanced through training or experience.

Policy

There is much potential for CHWs to be a force for good in English health and social care. However, there are important lessons from the international context that have not translated into English policy and practice. The visibility, power and collective voice of CHWs in England is low, not least because they have no shared identity in policy. Strategic level input could begin to address this, in much the same way as is being achieved in the US. There are two important recommendations that arise from the work presented here. The first is that workers in the English setting should be defined as 'community health workers' in addition to their context-specific names. The second is that services should cease to be conceptualised as interventions, and CHWs should be viewed as a discrete occupational group.

CHAPTER 12) CONCLUDING REMARKS

This work had an overarching aim of examining exactly what it is about CHWs that enables them to deliver health improvement. Following exposure to CHW models during clinical public health practice and academic research, I was confronted by vague assumptions about functions of CHWs, and a dearth of programme theory. I was thus compelled to explore how CHWs were described in the literature, and how they were operating in practice in England. In particular, the specific characteristics of CHW recruits, and role designs required in depth scrutiny.

This thesis has found current definitions used to define CHWs subjective, heterogeneous, and confusing. This hinders the development of the evidence base, and the integration of CHWs into the healthcare landscape and wider population. I posit a rejection of commonly used terms, or at least a consistent use of the 'community health worker' moniker alongside existing worker titles, in order to address these issues.

The findings of this research demonstrated that many CHW services aim to deliver functions which can be described as social support, and this has a comprehensive theory and evidence base, though to-date it has largely been in a naturalistic rather than health service setting. Encompassing the disparate theories, models and aims of CHW programmes from research and practice within the social support definition offers an opportunity to simplify understanding, and build evidence and practice, with the aim of improving the effectiveness of this approach to health improvement.

This thesis has unpicked the intended social support process, and suggests that needs assessment, effective service provision and client engagement are required in order to achieve successful programme delivery. In short, CHWs, under the appropriate conditions, have potential to become 'experts' in social support, and to make a unique contribution to health improvement, complementing other services.

In addition, the empirical work conducted for this study has indicated a wide range of characteristics that may be key in delivering effective social support. It employs a range of academic theories to hypothesise the function of CHW characteristics suggested by research participants. It takes understanding of the value of CHW approaches beyond intuitive ideas related to similarity, credibility, and shared identity, and suggests that there is much more going on inside the 'black box' of CHW services. While there are many insights into these ideas in the existing literature, this work organises and interrogates the concepts in more detail than has been attempted before. Going forward, the theory generated from these findings must now be rigorously tested.

The body of work is a valuable contribution to the CHW field, adding another piece to the complex jigsaw that is CHW theory, evidence and practice. It is a deep dive into the social support role of CHWs, and provides a framework that might be applied to other domains of CHW work to understand the unique contribution that CHWs can make to health, and health inequalities. CHWs are an increasingly important, but underutilised resource in England and beyond, but the more we

understand them, the more we can harness their capacity to deliver an engaged, healthy population.

APPENDICES

Appendix 1: Data extraction form

Data Extraction Form
Authors: Cornell CE, Littleton MA, Greene PG, Pulley L, Brownstein JN, Sanderson BK, Stalker VG, Matson-Koffman D, Struempfer B, Raczynski JM.
Title: A Community Health Advisor Program to reduce cardiovascular risk among rural African-American women.
Reference: Health Educ Res. 2009 Aug;24(4):622-33. doi: 10.1093/her/cyn063.
Publication Date: 2009
Confirm Eligible for Inclusion: <ul style="list-style-type: none"> • Describes/discusses the use of CHWs/lay/peer/paraprofessional individuals • Workers target adults • Workers seek to improve client health as primary outcome • Workers are community-based (not hospital) • Setting: in the UK/US/Australia/Canada/New Zealand
Aim: To conduct a theory-based CHW intervention designed to reduce the risk for cardiovascular disease (CVD) among rural African-American women
Study Design: Description of intervention development (quantitative and qualitative)
Setting and population: Rural Alabama African American women
Country of study: US
Findings: Describes four phases of project development: formative evaluation (identified high-priority issues as well as needs and resources for training and intervention), worker recruitment/training (characteristics described below), intervention (activities described below), and maintenance (activities continued with increases and decreases in participation, workers raised funds for project continuation, local jobs created).
Definitions and descriptions of CHWs and CHW activities: <u>CHWs:</u> Previous experiences as natural helpers including community and church leadership positions. CHWs saw themselves as trusted and good listeners and because they gave good advice Live in community Matched ethnicity (African American) Community's natural helpers (those to whom community members already turn for support and advice) shared language, culture and values and extensive knowledge of local resources and health issues Volunteers <u>Activities:</u> Education/information/advice Events and classes (nutrition, physical activity and smoking cessation) Address community knowledge, adherence to screening/treatment, give behaviour change support Community development (e.g. set up of farmers' market) Church, clinic, school, street settings Group and 1:1 work Environmental activities (neighbourhood cleanup, improving provision in libraries/shops) Compile resource directory (to facilitate access to services?) Screening (BP) Access to NRT
Theory or evidence addressing the mechanism by which CHWs improve health: Community Health Advisor Model – "grounded in" Community Empowerment and Diffusion of Innovations Theories

CVD risk reduction intervention – “guided by Social Cognitive Theory” – social context key

Other:

Reference to other relevant studies:

Brownstein JN, Bone LR, Dennison CR et al. Community health workers as interventionists in the prevention and control of heart disease and stroke. Am J Prev Med 2005; 29(5 Suppl. 1):128–33.

Brownstein JN, Chowdhury FM, Norris SL et al. Effectiveness of community health workers in the care of persons with hypertension. Am J Prev Med 2007; 32: 435–47. 24.

Norris SL, Chowdhury FM, Van Le K et al. Effectiveness of community health workers in the care of persons with diabetes. Diabet Med 2006; 23: 544–56.

Witmer A, Seifer SD, Finocchio L et al. Community health workers: integral members of the health care work force. Am J Public Health 1995; 85: 1055–8

Love MB, Gardner K, Legion V. Community health workers: who they are and what they do. Health Educ Behav 1997; 24: 510–22.

Eng E, Young W. Lay health advisors as community change agents. Fam Community Health 1992; 15: 24–40.

Appendix 2: Table of included studies Phase 1 of literature review Tables of studies included in phase 1 2005-10

2005-2010 literature

	Author	Title	Country	Population	Methods	Key findings	Person	Role	Theory
1.	Andrews(293)	The Effect of a Multi-Component Smoking Cessation Intervention in African American Women Residing in Public Housing	US	African American women smokers	Quasi-experimental design, intervention and control group	Abstinence 6 months 27.5% v 5.7%. Social support and self efficacy scores predicted success.	CHWs ethnic, gender and smoking matched	Group sessions	Social support Eng & Ypung Flax and Earp Friere Motivational strategies
2.	Arcury (294)	Reducing Farmworker Residential Pesticide Exposure: Evaluation of a Lay Health Advisor Intervention	US	Latina women in farmworker families, in and out of social network of CHWs	Before and after study, survey and interview evaluation	Good penetration of intervention but little change in knowledge in target group	Women from community, same language, 'well-connected', volunteers	1:1	Theory of reasoned action
3.	Babamoto (295)	Improving Diabetes Care and Health Measures Among Hispanics Using Community Health Workers: Results From a Randomized Controlled Trial	US	Newly diagnosed type 2 diabetic Hispanics	RCT	Significant improvements in health status, emergency department utilization, dietary habits, physical activity, and medication adherence. BMI reduction OR 2.9.	Ethnic and language match. CHW or family member had DM, local, paid	1:1	Transtheoretical model
4.	Baksi(296)	Experiences in peer-to-peer training in diabetes mellitus: challenges and implications	UK	Type 2 diabetics	Description of intervention	Workers are effective psychosocial supporters, advocates, committee members, and self-management advisors and teachers (qualitative judgement)	Matched by disease	Psychosocial support, education, advocacy	None
5.	Balcázar(297)	A Randomized Community Intervention to	US	High CVD risk Hispanic population	RCT	Client-perceived benefits, self-reported salt/sodium intake, and cholesterol/fat intake	None	Education group sessions	Promotoral model Social marketing Stages of change

		Improve Hypertension Control among Mexican Americans: Using the Promotoras de Salud Community Outreach Model				significantly different but not clinical measurements.			Social learning Self efficacy Planned behaviour (theory from prev. paper)
6.	Balcázar(298)	<i>A Promotora de Salud</i> Model for Addressing Cardiovascular Disease Risk Factors in the US-Mexico Border Region	US	High CVD risk Hispanic population	RCT	Significant differences in diastolic blood pressure Perceived susceptibility to CVD, benefits of behaviors that will control CVD risk. Significant improvements in weight-control practices, salt intake, and cholesterol and fat intake.	None	Education group sessions	
7.	Balcazar (299)	Salud Para Su Corazon-NCLR: A Comprehensive Promotora Outreach Program to Promote Heart-Healthy Behaviors Among Hispanics.	US	High CVD risk Hispanic population	RCT	Improvement in LDL, TG, waist circumference, diastolic BP, weight, HbA1c.	None	Education group sessions	
8.	Bancroft (300)	Self-management training for people with chronic disease: an exploratory study	UK	Chronic disease patients	Qualitative	Client satisfaction with service Goal setting key to behaviour change Improved confidence to select suitable self management techniques	Shared experience – chronic disease Trained	Group education sessions, information Sharing stories Behaviour support Coping skills Confidence-building	CDSMC model Self-efficacy (Bandura)
9.	Boulton (301)	Realising whānau ora through community action: the role of Māori community health workers.	New Zealand	Maori communities	Qualitative	Complex roles not all formal Differing stakeholder expectations Need for more training	Ethnically matched worker Cultural knowledge, skills	Medical tasks Advocacy Health promotion Liaison 'Cultural tasks' Flexible setting	None
10.	Brown (302)	A tri-level HIV-prevention educational intervention	US	African American population	Before and after	Increases in group participant knowledge	Shared ethnicity and community – credibility Relevant experience – some had been involved in drug use or criminal justice	Group session Education/knowledge Community venues Convenient times	None

							system Trained		
11.	Brownstein(34)	Effectiveness of community health workers in the care of people with hypertension	US	Individuals with hypertension	Systematic review	14 studies, 8 RCTs. CHW characteristics not well-described. Some studies showed significant improvement in health behaviours (e.g. treatment adherence), service outcomes (e.g. service utilisation)and health outcomes (e.g. cardiovascular risk). Heterogeneity across studies, no meta analysis.	Trained No formal professional/paraprofessional designation Relationship with target community Shared socioeconomic status and ethnicity No prior experience in healthcare Community work experience Community knowledge (networks, organisations)	Advocacy Bridge cultural social gaps between clients/services, translation (language) Education and information Counselling Social support Clinical services (BP) Improve access to, continuity of, appropriate use of care Facilitating groups Behaviour change (self care, treatment adherence) Health and community settings (home, church, community centre, jail, food bank) Instrumental support (transport)	None
12.	Burhanstipanov (303)	Breast screening navigator programs within three settings that assist underserved women	US	Several discrete 'underserved' populations of women who had not attended mammography within 18 months	Controlled study	Increased screening	Community language skills	Culturally appropriate education Assistance in scheduling mammogram Follow up Support with results Accompany to appointments Translation of jargon Family support Accessing spiritual/social support networks	Social Cognitive Theory
13.	Calhoun(304)	A national patient navigator training program	US	Medically underserved cancer patients	Before and after evaluation of a training	Post-test scores higher than pre-	Knowledge/skills	Referral/signposting Advocacy/bridging Administration Attendance at appointments Emotional support	Social Cognitive Theory

					programme			Data collection	
14.	Campbell(305)	Process Evaluation of an Effective Church-Based Diet Intervention: Body & Soul	US	African American Churchgoers	Implementation evaluation	Participation improved fruit and vegetable consumption and reduced fat intake (self report) There were implementation and sustainability issues	Churchgoers with degree and counselling experience nominated by their community Often female, educated, married Volunteers	Running events Individual counselling for behaviour change	Motivational interviewing
15.	Carter(306)	Implementing a standardized community-based cardiovascular risk assessment program in 20 Ontario communities	Canada	'Seniors'	Implementation evaluation	Local expertise, support, professional engagement and model flexibility were important determinants of success	Volunteers	Pharmacy based Health education Blood pressure screening One-to -one	None
16.	Cherrington (9)	Recognizing the diverse roles of community health workers in the elimination of health disparities: from paid staff to volunteers.	US/ Indonesia	Latino/a, African American and Indonesian populations	Commentary	Differences between paid worker and volunteer programmes: Activities and perceived allegiance: Assigned defined tasks (P)Choose own tasks (V) Required to complete assigned tasks (P) Encouraged to completed assigned tasks (V) Agenda set primarily by the employer (P) Agenda set primarily by the community or collaboratively (V) Commitment to the job/organization (P) Commitment to the community (V) Scope of work and flexibility: Restricted schedule (P) Flexible schedule (V) Required number of hours (P) No required hours (V) Intervention fidelity (P) Autonomy/creativity in intervention delivery (V) Support and compensation: Paid by the hour or task (P) Incentives and non-monetary reward system (V) Sustainability based on	Volunteers or paid workers – differences explored	Education Social support Connection to services Community events Screening Advocacy Exercise classes Telephone calls Group and 1:1	None

						availability of funds (P) Sustainability based on the community resources and will of the volunteers (V). Both approaches valid, relevant in different contexts.			
17.	Chiu(307)	Health intervention in social context: Understanding social networks and neighbourhood	UK	A range of hard to reach groups in UK settings	Mixed methods	'Community' and 'network' not fixed concepts CHWs don't know they are recruited for their hard to reach networks Non-matched CHWs can struggle to recruit some ethnic groups Different groups have larger/smaller networks Networks do not fit with geographical boundaries	CHWs recruited to exploit networks but need to be well-connected and trusted Embedded and/or proximal to community but difficult to define Ethnic matching used Recruited from neighbourhoods/communities hard to reach	Behaviour change Community capacity building Accessing services Information-giving	Social networks Social embeddedness Social capital (Bonding/bridging) Strength of weak ties Natural networks
18.	Comellas (308)	Training community health promoters to implement diabetes self-management support programs for urban minority adults	US	Urban minority diabetics	Pre-post survey, pilot study	Improvements in lifestyle behaviours. Acceptable and feasible intervention.	Bilingual worker CHW diabetic or diabetic relative	Behaviour change Storytelling Information/education Group approach	Goal setting Problem solving
19.	Cornell (120)	A Community Health Advisor Program to reduce cardiovascular risk among rural African-American women.	US	Rural African-American women	Intervention development/implementation paper	Key aspects of intervention defined and process of implementation described	Previous role in community Natural helpers Local Matched ethnicity Shared language, culture and values, knowledge of local resources and health issues Volunteers	Education/information/advice Behaviour change Access to screening Events and classes Community development Church, clinic, school, street settings Group and 1:1 work Environmental activities Compile resource directory Screening (BP) Access to NRT	Community Health Advisor Model Community Empowerment and Diffusion of Innovations Theories Social Cognitive Theory
20.	Craig(309)	Therapeutic Group	Australia	Rural women	Before and	Reduction in anxiety/depression	Experienced in	Group approach	CBT

		Programme for Women with Postnatal Depression in Rural Victoria: A Pilot Study		with postnatal depression	after study	scores	counselling/group work	Local service for rural population (proximal) Counselling/group therapy	Group dynamics
21.	Cresswell (310)	Health Trainers: The Evidence	UK	Disadvantaged communities	Summary of review	Summary of Visram and Drinkwater evidence review 2005 (reviewed separately)	See Visram and Drinkwater	See Visram and Drinkwater	See Visram and Drinkwater
22.	Cross-Sudworth (311)	Maternity linkworkers: a Cinderella service?	UK	Pregnant women who do not speak English as a first language	Discussion article	Reviews the role of linkworkers (see right) No consensus on role scope Some women refuse them due to confidentiality concerns	Implicit that they have similar language and ethnicity to clients	Communication: translators, advocates, 'inter-cultural mediators', advocacy, Plus: health promotion, exercise classes, companionship in labour	
23.	Crump (312)	Abnormal Mammogram Follow-Up: Do Community Lay Health Advocates Make a Difference?	US	African American women with abnormal mammograms	Pilot controlled study	Increase in attendance and follow up	Retired women with post-high school education Experienced in health education, health promotion or community work Ethnic and gender matched (AA women)	Encourage compliance with post-mammogram follow up Attend appointments Remind about appointments Explore issues Support through cancer if diagnosed Give information	PRECEDE/PROCEED model
24.	Culica (189)	Effectiveness of a community health worker as sole diabetes educator: comparison of CoDE with similar culturally appropriate interventions.	US	Hispanic Americans with diabetes	Pilot controlled study	Improvements in HbA1c	Trusted Bilingual	Information Help to overcome barriers Culturally appropriate education Group education One to one work Case management BP/urine/BMI measurement	None
25.	Dennis (313)	Postpartum depression peer support: Maternal perceptions from a randomized controlled trial	Canada	Women with PPD	Cross sectional survey of trial participants	Client perceptions of peer supporters	Peer qualities included – intimacy, trust, empathy, attachment, closeness, commitment, social competence, social skills, lack of conflict	Emotional support Informational Support Appraisal support	Emotional, informational, appraisal – peer support concept CL Dennis Self efficacy Social comparison
26.	Dennis (314)	Effect of Peer	Canada	Women 2	RCT	Significant difference in	Volunteers	Telephone support	None

		Support on Prevention of Postnatal Depression among High Risk Women: Multisite Randomised Controlled Trial		weeks postpartum at high risk of depression		depression scores at 12 weeks postpartum. Women satisfied with intervention.	Matched ethnicity, gender, area of residence Shared experience – history of PND Trained Workers educated beyond high school	Minimal 1:1 Referral	
27.	Durantini (83)	Conceptualizing the Influence of Social Agents of Behavior Change: A Meta-Analysis of the Effectiveness of HIV-Prevention Interventionists for Different Groups	International	Populations at risk of HIV	Meta-analysis	Analysis supports suggestion that disempowered communities can benefit more from matched workers, power key here Some minority groups state matching not as important as other characteristics Context important Sometimes professionals may be more convincing Systematic info on matching not available – assumed to be beneficial	CHWs can share life experience, demographic characteristics, values Expert knowledge important in some contexts Trustworthiness	Access to education facilitation Behaviour change	Motivation Goal setting Influential source
28.	Ebbeling (118)	Conceptualization and Development of a Theory-Based Healthful Eating and Physical Activity Intervention for Postpartum Women Who Are Low Income.	US	Low income postpartum women	Description of intervention development	Women didn't want a worker who told them what to do or nagged them Challenging to engage potential clients, particularly in their homes (some preferred telephone)	Shared 'social context' ensures empathy and minimises barriers Trained	Behaviour change Information Social support Signposting Vouchers Decision-making support	Social ecological framework Achievement-based objectives Self efficacy Social support Motivational interviewing Social cognitive theory Behavioural choice theory Goal setting Self monitoring Problem solving
29.	Elder (315)	Evaluating Psychosocial and Behavioral Mechanisms of Change in a Tailored	US	Latinas	RCT	Reduces barriers to dietary behaviour change and improves family interactions Written resources were more important in sustained dietary change	Workers aware they were selected for particular characteristics Workers resident in target community Spanish language dominant	Home visit model plus telephone One-to-one Behaviour change focus (diet)	Social Cognitive Theory Social Support Theory Social Influence Theory

		Communication Intervention					Capable of providing social support Empathic Non-judgmental Able to build rapport A role model in the community Interested in improving others' health Trained		
30.	Farquhar (316)	"Sitting in different chairs:" roles of the community health workers in the Poder es Salud/Power for Health Project.	US	African American and Latino populations defined by church membership or specific residence (apartment block)	Qualitative	Workers valued their roles, and involvement in the strategic elements of the programme appeared to help workers build leadership skills, and sense of efficacy to effect community change	Previous experience of organisation and advocacy (not all) Worked in own community Trained in specific skills/knowledge	Community organisation focus Education, group exercise, community organising Advocacy	Popular Education, based on Paulo Friere – for training of CHWs, not the intervention itself
31.	Faulkner (317)	Social support in the healthcare setting: the role of volunteers	UK	General practice patients with psychosocial issues Older hospital patients	Qualitative	Activities consistent with social support model	Empathy Knowledge about local services Trained to be non-judgmental Volunteers	Time important Counselling techniques Social support (4 domains) Signposting and referral Assistance with complex tasks, material resources, chores, grooming	Social support
32.	Fernandez (318)	Using intervention mapping to develop a breast and cervical cancer screening program for Hispanic farmworkers: Cultivando La Salud	US	Hispanic farmworker women >50eligible for breast and cervical screening	Description of intervention development	Describes steps in developing lay intervention	Current/former farmworkers (shared experience) Implicit that they were female	Modelling, information transmission, persuasion, facilitation, skills training, vicarious reinforcement, and entertainment education Role modelling Sharing stories Encouragement Assistance with access and attendance	Social cognitive theory, theory of reasoned action/planned behavior, and the health belief model PRECEDE/PROCEED
33.	Fowler(319)	Collaborative	US	African	Before and	Increased screening uptake and	Paid workers	1:1 contact at home or	None

		breast health intervention for African American women of lower socioeconomic status		American women	after study	knowledge about health and screening		telephone	
34.	Funnell(320)	Peer-based behavioural strategies to improve chronic disease self-management and clinical outcomes: evidence, logistics, evaluation considerations and needs for future research	US	Chronic disease patients	Review	Many authors do not describe behavioural strategies employed We do not know about the qualities or qualifications needed to be an effective peer supporter Goal setting and problem solving, "multilevel support", effective in moderating lifestyle behaviour. Motivational interviewing improves BMI, cholesterol, blood alcohol, blood pressure. MI appears to be more effective if delivered by lay people.	Concludes we do not know about the training, qualities or qualifications needed to be an effective peer supporter Communication skills Shared disease experience	Behaviour change focus Strategies include goal setting, problem solving, social support, patient-centred communication and exploration of feelings Group programmes Pairing/buddy peer approaches	Goal setting Problem solving Social support theory
35.	Griffiths (321)	How Effective are Expert Patient (Lay Led) Education Programmes for Chronic Disease?	UK	Chronic disease patients	Review	Programmes improve self-efficacy and in some psychological health. Self-rated health and use of health care not significantly influenced by programmes.	Lay educators cheap	Behaviour change focus Modelling behaviours	Social Cognitive Theory
36.	Great Britain Department of Health British Psychological Society. (322)	Improving health: changing behaviour: NHS health trainer handbook.	UK	Deprived individuals with unhealthy lifestyles (smoking, diet, weight, exercise, alcohol)	Training document		From local communities Communication skills Trained in psychological techniques	Behaviour change Psychological techniques Information- giving Signposting and referral	Psychological techniques: goal setting, self-monitoring, creating action plans and building social support, motivational interviewing Control theory Social Cognitive Theory
37.	Halliday. (323)	Young, vulnerable and pregnant: family support in practice.	UK	Vulnerable young mothers	Pilot study evaluation (mixed methods,	Observed improvements in various health-related behaviour, wellbeing and support in small sample of clients.	Paid workers Specific training in behaviour change and attachment Existing workers (MA/HVA)	1:1 model Practical support Emotional support, listening More time than	None

					before and after)			professionals Referral Behaviour change support	
38.	Han (324)	Tailored lay health worker intervention improves breast cancer screening outcomes in non-adherent Korean-American women.	US	Korean-American women eligible for breast screening	Before and after	Increase in screening, clinical and self-examination of breasts, no change in knowledge or beliefs	Bilingual Dedicated, flexible Recruit clients from own social network	Education Follow up counselling Health system navigation Education and behaviour change focus	Transtheoretical model Health Belief Model
39.	Hazard (86)	Hispanic Labor Friends Initiative: supporting vulnerable women	US	Hispanic American pregnant women	Qualitative	Women feel more supported Professionals perceive that they understand women better, give better care	Matched language, ethnicity, gender, experience (mothers) Educated, "oriented to the initiative"	Social support (not defined in detail) Assisted communication with health care providers	Social support
40.	Heisler (325)	Overview of Peer Support Models to Improve Diabetes Self-Management and Clinical Outcomes	International	Diabetic patients	Review (not systematic)	Peer support has delivered improvements in lifestyle behaviours, medication adherence, and blood glucose Shared experience and non-hierarchical relationship appear to be important Volunteers save resources Shared experiences associated with empathy and mutual help Empowerment approaches used in most successful evaluated programmes (glycaemic control, self efficacy, wellbeing) Minority communities prefer trusted peers rather than health professionals Cost reduction Emergency care use reduction	Shared experience – disease, able to role model Volunteers – more flexible schedule Shared language/culture/ community	Group settings Information/education Behaviour change support Empowerment Convenient locations/venues Bridging between health providers and clients Case management, care coordination Identifying resources Education Social support Prevention of disease Management of disease	Chronic disease self management program (CDSMP) Empowerment Theory
41.	Heisler (326)	Participants' assessments of the effects of a community health worker intervention on	US	African American and Latino diabetic patients	Qualitative	Patient knowledge improved Time and depth of information appreciated, though some concerns about worker knowledge level Workers not diabetic and clients	Non-judgmental Workers were not diabetic	Behaviour change System navigation Education (knowledge/skills) lifestyle and health service interaction Group sessions	None

		their diabetes self-management and interactions with healthcare providers.				said this impacted on their understanding of them Valued emotional support Improved confidence and reduced fear talking to doctors		One-to-one Spending time Emotional support	
42.	Hiatt (327)	Cancer screening for underserved women: The Breast and Cervical Cancer Intervention Study	US	Multiethnic underserved women	RCT	No significant improvement in screening	Ethnic matching Paid workers	Group and 1:1 Education/information Behaviour change (screening behaviour) Events	None
43.	Hoddinott (328)	Why do interventions work in some places and not others: a breastfeeding support group trial.	UK	Breastfeeding women	Realist evaluation	Model constructed which explained variation in implementation and outcomes. Quantity of intervention not explanatory. Place-related issues, and management focus upon them, hindered implementation in sites where BF declined. Where BF increased stronger leadership, partnership working, policy focus and reflective action cycles was observed.	Volunteer and paid	Group work Behaviour change Administration	None
44.	Hodnett(329)	Support during pregnancy for women at increased risk of low birthweight babies	Int'l	Pregnant women at high risk of preterm birth or low birth weight	Systematic review	2 of 18 trials involved 'lay' workers No significant improvement in perinatal outcomes. Reductions in antenatal admission and caesarean section. NB not just lay workers	Review looked at professional and 'lay' interventions The lay women were specially trained	Emotional support (counselling, reassurance, listening) Tangible support (transport, childcare) Information Home visits, clinic appointments, telephone	None
45.	Jandorf(330)	Breast and cervical cancer screening among Latinas attending culturally specific educational programs	US	Latinas	RCT	Significant increases in clinical and self breast examination and cervical screening No significant increase in breast screening	Volunteers Ethnically matched Language matched Some involved in the community/willing to serve community Local Shared experience/relevant experience (cancer)	Education	None

46.	Kaczorowski (331)	Cardiovascular Health Awareness Program (CHAP): A community cluster-randomised trial among elderly Canadians	Canada	Over 65s	RCT protocol	Study design only reported	Volunteers	Blood pressure measurement CVD risk assessment Sharing information with professionals	None
47.	Kennedy (332)	Benefits arising from lay involvement in community-based public health initiatives: The experience from community nutrition.	UK	Deprived communities	Qualitative	Benefits of lay people – reach hard to reach, cost efficiency, better engagement related to shared experience and social/cultural proximity breaking down barriers Workers benefit personally from involvement Professionals did not fully recognise potential for social support	Shared life experience Social and cultural proximity to clients Paid and volunteer models Reduced cost	Individualistic behaviour change focus Behaviour change (diet, cooking) Education Time Social support Community capacity building Group interventions	None
48.	Kobetz (333)	Taking the transtheoretical model into the field: a curriculum for lay health advisors.	US	Rural African American women	Description of intervention development	Description of a training curriculum for lay health advisors	“indigenous” Paid staff Natural helping Empathic	Listening Information Social support	Transtheoretical model Natural helpers
49.	Layne(334)	Successful dissemination of a community-based strength training program for older adults by peer and professional leaders: the people exercising program	US	>50s	Feasibility study	Majority of leaders established feasible intervention, with no significant difference between ‘peer’ and professional group leaders.	Not professional No shared experience despite being called peers Demographically different to clients	Group exercise classes Community venues including churches	None
50.	Lewin (55)	Lay health workers in primary and community health care	International	Any	Systematic review	Heterogeneity in aims, content and outcomes of programmes. Evidence of effectiveness in promoting immunisation uptake, breastfeeding, breast screening uptake and infectious disease outcomes.	Paid or voluntary Shared demographics Shared community Shared experience – disease sufferers Trained Not professional	Health care delivery/treatment Screening Settings – homes, clinical, community Education Outreach Home visits Telephone contact	None

								Group and individual Behaviour change Disease management Psycho-social support Practical support Emotional support	
51.	Lewin (47)	Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases.	International	Women and children	Systematic review	In high income countries, exclusive breastfeeding promotion to 6 months and promoting any breastfeeding – some low quality evidence	'Familiarity with target community' Shared experience of health condition	Deliver health care to minorities Behaviour change Health centres, homes, community meetings, telephone	None
52.	Lhussier (75)	Health-related lifestyle advice: critical insights.	UK context	'Hard to reach' populations at increased health risk (Health Trainer clients)	Critical analysis of concept	Describes challenges: Geographical community definition Viewing health problems as rooted in behaviour Making the 'right' lifestyle choice Empowerment and disempowerment Ethics of interventions	Members of community they work in, potential to understand need as a result, reduce power imbalance with clients Cost effective	Empowerment Behaviour change (lifestyle) Education/knowledge, translation of messages Community development	None
53.	Lujan(39)	Promotora diabetes intervention for Mexican Americans	US	Mexican American diabetes patients	RCT	Significant differences in HbA1C and diabetes knowledge at 6 months	Shared language Paid staff	Group classes and telephone follow up Education Information – translated into context Self-management	"Middle range theory of community empowerment"
54.	Luque(131)	Implementation evaluation of a culturally competent eye injury prevention program for citrus workers in a Florida migrant community	US	Mexican migrant citrus workers	Pilot study	Intervention potentially effective	Volunteers Shared experience – citrus workers Shared language, ethnic group	Information and attitude change focus	None
55.	MacArthur (335)	Antenatal Peer Support Workers and Initiation of Breast Feeding: Cluster Randomised	UK	Multiethnic deprived pregnant women	RCT	No significant difference in breastfeeding initiation	Shared ethnicity and language as far as possible Personal success in behaviour (breastfeeding)	Contact in health care settings and client homes Advice, information, overcoming cultural barriers	None

		Controlled Trial							
56.	Mack (336)	People Improving the Community's Health: community health workers as agents of change.	US	Low income high-need multi-ethnic community	Description of intervention	Method not formally described, but increase in enrolment in health coverage and participation in community involvement schemes,	Paid workers Community members, most live where they work Trained Care, want to help	Community development Individual health support Encourage community participation One-to-one Outreach Listening Care Assistance to enrol in health coverage plan Link/signpost to services (financial, behaviour change) Community venues Holistic approach (person, not problem)	None
57.	Mackenzie (337)	Benefit or burden: introducing paraprofessional support staff to health visiting teams: the case of Starting Well.	UK	Families and children	Process evaluation (qualitative)	The deployment of staff who are potentially vulnerable, and paraprofessional comanagement by health and voluntary sector managers were key issues. New role implementation into Health Visiting Teams was not a major issue.	Paid staff Community knowledge, shared life experience, e.g. excursions (can relate to clients) Local people	Task shifting from health professionals Social, emotional, practical services Cultural bridge between clients and professionals Identifying family support needs Advice Advocacy Home care, e.g. chores Signposting Childcare Community work Befriending Emotional/social support	None
58.	Marin(338)	Ethnographic evaluation of a lay health promoter program to reduce occupational injuries among Latino poultry	US	Latino poultry workers	Ethnographic evaluation	Population change in attitudes and behaviour. Workers had improved self esteem and independence.	Sessional paid workers Shared language Some shared experience (poultry worker past/present)	Individual and group approaches Information/education about health risks, behaviour, rights, responsibilities, sources of support	None

		processing workers							
59.	Martin(339)	The Evaluation of a Latino Community Health Worker HIV Prevention Program	US	Urban immigrant Latinos	Before and after study	Target community was reached. Improvements in knowledge and perceived risk of HIV.	Members of the community Trained in health promotion Volunteer and paid Shared language and ethnic group Range of education and experience	Education Advocacy Street outreach Group sessions In homes, community venues, churches	Empowerment Transtheoretical Model
60.	Martínez-Donate(340)	Using lay health advisors to promote breast and cervical cancer screening among Latinas: a review.	US	Latina women	Review	Interventions can improve screening rates	Natural helpers – work within social network, chosen by the community Knowledge of community behaviour, beliefs, attitudes Trained (but brief) churches) Group and 1:1 Community events, presentations Role play	Emotional support Tangible aid Culturally appropriate, spontaneous, informal support Individual/community capacity building Counselling Social support Direct services (transport) Culturally appropriate education Ensure delivery of services to individuals Cultural mediation Advocacy for themselves and communities Home visits, community venues (beauty salons,	None
61.	Matthews (341)	A Qualitative Evaluation of a Faith-Based Breast and Cervical Cancer Screening Intervention for African American Women	US	African American female churchgoers	Qualitative	Church-based cancer education is acceptable to clients Such interventions benefit from pastoral involvement. Accounts of workers and pastors appear to be important, plus the use of scripture	Volunteers Shared ethnic background Shared faith	Education Group Signposting to services Groups, events, promotional activities	None
62.	McCloskey (342)	Promotores as partners in a community-based diabetes intervention program targeting Hispanics	US	Hispanics at risk of diabetes	Qualitative	Description of key features of intervention (see right)	Shared community Understand culture Know clients	Facilitate access to services Signpost/enrol in activities (education/physical) Support behaviour change (lifestyle) Advocacy System navigation	None

								Support for personal/family issues Community development	
63.	McElmurry (343)	Implementation, Outcomes, and Lessons Learned From a Collaborative Primary Health Care Program to Improve Diabetes Care Among Urban Latino Populations.	US	Urban latino diabetic patients with limited English	Mixed methods implementation evaluation	Improvements in HbA1c Health providers reported better communication and understanding of patient culture/health interaction Collaboration important in intervention implementation	Trusted Respected Specific training Paid or volunteer Shared community leads to knowledge of health beliefs and practices, seen as similar by clients, may enhance influencing capacity	Education – disease, lifestyle, self-care, service use Case finding Case management Transport Interpreting 'Cultural brokers' between client and service Educate health providers in culturally sensitive service provision Outreach Assist access to health services Individual behaviour change – medication compliance, lifestyle behaviour, service use Organisational change Community change Community mobilisation	None
64.	Minore(344)	Realistic expectations: the changing role of paraprofessional health workers in First Nation communities in Canada	Canada	First Nations Communities	Review (not systematic)	Discusses changes over time, challenges and concerns for First Nations paraprofessional workers	Member of target community Knowledge of culture, beliefs, language Counselling and communication skills	Counselling Case management Clinical care Education Advocacy Empowerment Home visits Emergency care Administration	None
65.	Mock (345)	Effective lay health worker outreach and media-based education for promoting cervical	US	Vietnamese American women eligible for cervical	RCT	Self-reported pap smear testing, first smear, and repeat smear rates significantly better in lay worker intervention group.	Shared ethnicity Paid Shared social network with clients	Education/knowledge (causes of cancer, testing procedure, accessing services) Help scheduling	None

		cancer screening among Vietnamese American women.		cancer screening				appointments Group sessions plus follow up contact	
66.	Mock (105)	Processes and Capacity-Building Benefits of Lay Health Worker Outreach Focused on Preventing Cervical Cancer Among Vietnamese.	US	Vietnamese American women eligible for cervical cancer screening	Qualitative	Descriptions of organisational and staff roles, implementation processes, CHW activities and experiences. Presentation of conceptual framework outlining the role of context in process and capacity-building of the programme: sociocultural, organisational, programmatic and structural.	Shared ethnicity Paid workers Trained Willing to learn Motivated, committed, Shared/relevant experience of pap testing/cancer in some , sharing stories Communication skills Less emphasis on experience/education	Outreach Group work Follow up contact, ad hoc, flexible (due to social network clients) In homes or community venues Administration Advocacy Fundraising Community empowerment Social support	Friere
67.	Molloy (346)	Volunteering as a community mother--a pathway to lifelong learning.	Ireland	Deprived parents	Cross sectional study (survey)	Volunteers reported acquiring new knowledge, seemingly through training, and many went on to further education.	Shared experience (motherhood) Shared gender Volunteers	"Support and encouragement"	None
68.	Newbould (347)	Lay-led Self-Management in Chronic Illness: A Review of the Evidence	International	Chronic disease patients	Review	Describes a range of programmes and challenges in implementation	Volunteers Shared disease experience	Self management support, lifestyle behaviour, confidence, self-efficacy-building Diagnostic testing/ monitoring Group	None
69.	Nguyen(130)	Breast Cancer Screening Among Vietnamese Americans: A Randomized Controlled Trial of Lay Health Worker Outreach	US	Vietnamese American women eligible for cervical cancer screening	RCT	Significantly more mammography and clinical breast examination ever, and within the past two years for intervention group.	Live in community Selected by community, accountable to community Receive training "Natural cultural and linguistic competence" "Culturally competent educators" Shared ethnicity Paid workers	Group sessions plus telephone follow up In homes and community organisation office Information Behaviour change (breast screening)	None
70.	Nguyen(348)	A pilot study of lay health worker	US	Chinese American	Pilot study (before and	Increase in knowledge of cancer, screening, and in uptake of	Communication skills Shared language and	Group sessions plus telephone follow up	None

		outreach and colorectal cancer screening among Chinese Americans		men and women >50	after)	screening,	ethnicity Workers in target age group Interest and commitment Size of social network important Paid workers	Information/education Problem-solving Behaviour change focus (screening)	
71.	Nguyen(349)	Community Health Navigators for Breast- and Cervical-Cancer Screening Among Cambodian and Laotian Women: Intervention Strategies and Relationship-Building Processes	US	Cambodian and Laotian American women	Qualitative	Explores CHW perspectives on their role. Training plus knowledge about the community. Well-placed to reach excluded communities. Looks at social support roles and strategies and how CHWs work to improve access to care and health behaviours.	Community knowledge Knowledge and skills – language, cultural values, structural needs, resources	Emotional support Advocacy Accompany clients to appointments Bridging, “cultural broker” between health system and clients Education Capacity building Social support (4 domains) Behaviour change Group and 1:1 Outreach events Community venues Convenient times for clients	Social support Social network theory
72.	O’Brien(11)	Role development of community health workers: an examination of selection and training processes in the intervention literature	US	CHWs in the US	Review (not systematic)	Selection and training processes are inconsistently reported. Personal qualities were common selection criteria (all criteria listed right). Lots of variation in training processes. Conceptual model for role development presented.	Personal qualities(interest in programme, willingness to learn, compassion) Geographic location Shared culture Shared diagnosis Shared language Educational level Previous experience	Teaching/reinforcement Access to services Community outreach Social support Behaviour change	Role development theory
73.	Parra-Medina(350)	The partnership for cancer prevention: addressing access to cervical cancer screening among Latinas in South Carolina	US	Latinas	Qualitative	Latinas’ resources and needs around screening were explored. Key concerns access to screening. There were information needs. Participants preferred social contacts and outreach workers to health professionals.	Bilingual – clients expressed preference for this Shared culture – clients expressed how they felt “on a level” as a result System navigation	Outreach Education Access to services	None
74.	Peel (117)	Using senior volunteers as peer educators: What is	International	Older adults	Review (not systematic)	Senior peers are being used but there has been little formal evaluation	Shared characteristics and experience with clients Similar age associated with	Change behaviour, attitudes, knowledge (lifestyle, self-care)	“Rarely stated” Social Learning Theory

		the evidence of effectiveness in falls prevention?				Theory is described, but difficult to identify examples of how it is used are “difficult to identify” Senior peers are used to improve communication, access hard to reach, change behaviour (including role modelling) and deliver cost-effective sustainable services. Trial evidence to support the approach is lacking, though quasi-experimental studies suggest they may increase knowledge about falls and risk.	better rapport, credible, less biased, acceptance of advice Shared 'lay' language – better communication Information-giving Influential members of social group Volunteers Not professionals – clients more comfortable, less threatening, more likely to ask questions Knowledge – related to shared culture, age, locality. Cost effective	Role modelling	Social identity Theory Diffusion of Innovation Theory Empowerment Behaviour change
75.	Perez (62)	The impact of community health worker training and programs in NYC	US	Underserved American populations	Mixed method evaluation of pilot programmes	Training increased CHW competency CHWs were effective in delivering health insurance enrolment, childhood vaccination and asthma management programmes The authors determine that the training was effective in delivering CHW-mediated health promotion	Live in community Shared culture/ethnicity Shared experience of program People skills Commitment to community development Paid workers	Disease management (asthma) Health care access (insurance enrolment) Health promotion (vaccination) Street outreach Education Community advocacy/organisation Referral Case management Social support Counselling Education Follow up System navigation	Paulo Friere
76.	Powell (351)	Increasing Mammography Screening among African American Women in Rural Areas	US	Rural African American women churchgoers >40	Quasi-experimental	Intervention improved mammography attainment and reduced barriers to mammography	Workers church members Outgoing, happy, positive, communication skills, professional demeanour	Church setting Group intervention Information/education Follow up home visit Transport provided	None
77.	Ramos(352)	Pasa la voz (spread the word): using	US	Latinas	Group comparison	Increase in HIV testing rate, reduction in staff hours per test,	Use of social network Recruited within social	Referral Knowledge/education	None

		women's social networks for HIV education and testing			study	reduced cost of testing.	network Shared gender, ethnicity	HIV testing and counselling Behaviour change (lifestyle, service use) Referral Group and 1:1 Client homes	
78.	Ramos (353)	Pasa la Voz: using peer driven interventions to increase Latinas' access to and utilization of HIV prevention and testing services.	US	Latinas	Description of intervention	Describes a process of implementing and evaluating a programme where CHWs recruit a second tranche of 'seeds' – CHWs embedded in the social network. The programme effectively reached the target population. Barriers included multiple provider organisations, and need for training of partner providers, need for transportation in clients, concerns about confidentiality, .	Shared recent experience (migration from Latin America Ability to maintain confidentiality Shared language Community members Shared gender Knowledge of community resources Cultural knowledge	Flexibility in schedule Bridge gap between community and clients Decode/interpret messages	None
79.	Ramos(354)	Promovision: designing a capacity-building program to strengthen and expand the role of promotores in HIV prevention	US	Recently migrated and less acculturated Latinos	Description of intervention	Workers reduce costs, facilitate networking of community based organisations. The intervention is appropriate for improving HIV prevention in the target community.	Natural leaders Embedded in community Shared ethnicity Shared language – some monolingual (Spanish) and many Spanish first language Shared religion	Community/social network development Bridging Testing Group sessions Behaviour change Case management Clinical care Clinical and community settings Education/information	None
80.	Releford(355)	Cardiovascular disease control through barbershops: design of a nationwide outreach program	US	African American men	Description of intervention	The model was successful in screening 7000 men in 20 cities across 6 states	Volunteers Trained Existing role – workers were barbers	Community venues (barbershops) – credible forum, hard to reach community Disease screening Education/information Empowerment Behaviour change Referral to health services Community capacity building	Social Ecological Model Social Marketing

81.	Rhodes (138)	Lay Health Advisor Interventions Among Hispanics/Latinos: A Qualitative Systematic Review.	US	Hispanics/Latinos	Qualitative review	37 studies included. Workers predominantly female. Roles listed right. Wide range of training intensity. 14/37 showed evidence of effectiveness. More empirical evidence needed and evidence base lacking. 12 studies didn't describe any theoretical basis. There is a need to systematically report CHW characteristics in research. Research is needed to link theory to actions and impacts.	Shared community (geography, apartment block, , ethnicity, socioeconomic status, experience – “assumed” that this means they understand community needs, strengths, networks, language, and provide culturally appropriate care) Work within social network	Recruitment of participants Gathering data Health advice/information Referral/connection to other services Information distribution Role modelling Advocacy for community Emotional support Tangible aid 1:1 and group Behaviour change	Social support Social influence Social networks Social learning theory Empowerment Diffusion of innovations Transtheoretical model Health belief model
82.	Robinson(356)	Bridging the communication gap through implementation of a Patient Navigator program	US	Health service patients	Description of intervention	The programme was valued by strategic and frontline staff, and the workers themselves.	Volunteers Workers were often professional students	Patient education Non-clinical tasks Build relationships between health services and patients Assessing patient satisfaction Promote positive patient experience Welcome and assist patients	None
83.	Schoenberg (357)	Faith Moves Mountains: an Appalachian cervical cancer prevention program	US	Socioeconomically deprived female churchgoers	Participatory research project report	Describes the project: underlying theory, process, evaluation and implications.	Shared faith Local workers Shared gender (female)	Church-based – “culturally acceptable environments” Follow up home visits and telephone calls Behaviour change, changing knowledge, self-efficacy, attitudes Social support Information-giving, tailored	PRECEDE-PROCEED Social cognitive theory
84.	Scorer(358)	Health trainers implementing a new public health role	UK	Disadvantaged communities	Description of intervention	Describes local implementation of national CHW policy	Trained Some from target communities (shared characteristics)	Advice Motivation Practical support Lifestyle behaviour change Information, health literacy	None
85.	Scott(359)	Falls prevention training for community health	Canada	Older adults, clients of home	Quasi-experimental study	Overall reduction in falls post-intervention. No reduction in overall injury rate but fractures	Paid workers	Partnership working Behaviour change (falls risk) Information/education	None

		workers: Strategies and Actions for Independent Living		support services		reduced.		Referral Opportunistic intervention alongside routine home care work	
86.	Smith(360)	A research evaluation of health support workers in a Sure Start project	UK	Families using Sure Start services	Qualitative	Professionals and clients saw value in the service, but training and supervision issues were reported.	Formal qualifications 'desirable' Trained	Task shifting from professionals 1:1 and group	None
87.	Swider(361)	Project MATCH: training for a promotora intervention	US	Mexican Americans with diabetes	Before and after evaluation of training	Training improved knowledge and skills. Ongoing support was required to equip workers to face ongoing challenges. Mechanism for CHWs remains unclear. Literature is generally descriptive.	Members of community they serve – to reach effectively Paid workers	Education/training (self-management skills) Behaviour change (self-management) Community empowerment Home visits	CDSMP
88.	Taylor(362)	Evaluation of a hepatitis B lay health worker intervention for Chinese Americans and Canadians	US and Canada	Chinese Americans and Canadians	RCT	Limited impact on testing rates and knowledge in the intervention group.	Bicultural Trilingual Gender matched Shared ethnicity	Home visits Role modelling Social support Addressing barriers to behaviour Distribute information resources	None
89.	Taylor (363)	Evaluation of a cervical cancer control intervention using lay health workers for Vietnamese American women	US	Vietnamese American women	RCT	Increased testing (self report and record-verified) in women who had previous screening. No change in women who had never been screened before.	Community members Trained Bicultural Bilingual Shared ethnicity Not professional Gender match	Education Role modelling Home visits with telephone follow up Social support Address barriers to behaviour Distributing information resources	None
90.	Thompson (364)	Advancing diabetes self-management in the Mexican American population: a community health	US	Mexican American diabetics	Before and after study	Significant reduction in HbA1c. Apparent dose-response relationship for intensity of contact.	Diabetic/family member diabetic Community members Interpersonal skills Willingness to help community	1:1 and group Face to face and telephone Counselling 'Psychoeducation' for depression Education (diabetes)	Transtheoretical model

		worker model in a primary care setting.					Trained	Support and empowerment Outreach (events) Exercise (walking) groups Behaviour change support Information sharing with professionals Accompanying clients to appointments	
91.	Trayers(365)	Bridging the gap in health inequalities with the help of health trainers: a realistic task in hostile environments?: a short report for debate	UK	Deprived communities	Discussion paper	Makes the case for focus on individual and area-based initiatives, and critiques the Health Trainer model for its individual focus.		Behaviour change Access community and service support	None
92.	Victor(366)	A barber-based intervention for hypertension in African American men: design of a group randomized trial	US	African American men	RCT protocol	Describes intervention and study design	Volunteers Existing community role (barber) Shared gender and ethnic group	Community venue (barbershop) Social support Behaviour change Clinical observations (BP) Referral and access to services	CDC AIDS Community Demonstration Projects "Behaviour theory"
93.	Villablanca (367)	Outcomes of national community organization cardiovascular prevention programs for high-risk women	US	High risk women (ethnic minority and >40 focus)	Before and after study	No significant improvement in primary outcomes (obesity and physical activity) Significant improvements in secondary outcomes (knowledge, controlled hypertension,	Existing community role (faith/community leader) – some were health professionals	Faith, community and clinical venues Group work Education/knowledge Exercise Goal setting Screening (BP, BMI, glucose, cholesterol) 1:1 Field trips to grocery stores, fitness centres, restaurants) Community engagement	Stages of change
94.	Viswanathan (32, 33)	Outcomes and costs of community health worker interventions: a systematic review	International	Any population	Systematic review	53 studies on CHW characteristics, 6 on cost, 9 on training. CHWs improve knowledge, mixed evidence of effectiveness (some showing	Trained – not professional training Some work in own social networks – specialist knowledge and expertise	Telephone, clinic, community (church, street), home, workplace settings 1:1 and group Education (culturally	Natural helper model Outreach model Behaviour change Social learning

						effect others none) in behaviour change and health outcomes. Low to moderate evidence of improved health care use. Significant differences in outcomes in asthma, cervical and breast cancer screening, but none for breast examination, colorectal cancer screening, chronic disease management or maternal/child health. Economic data insufficient to determine cost effectiveness. No evidence of CHW training on health outcomes.	Shared language, ethnicity, geography, race, disease Trusted community members	competent) Support and assistance Transport Information Appointment reminders Part of healthcare team Community navigation Outreach Bridge to healthcare system, remove barriers Behaviour change Community change (less common) Access to care Counselling Health care (less often)	theory Social cognitive theory Health belief model Community organising model Community building model
95.	Walker (368)	How do we determine whether community health workers are cost-effective? Some core methodological issues.	Developed countries	Various	Review of cost effectiveness	There is a lack of cost effectiveness evidence. Explores how cost effectiveness could be measured.	"Accessible and accessible to clients in their communities" Cheaper Volunteer and paid	Behaviour change Community empowerment	None
96.	Walkup(369)	Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers	US	Young American Indian mothers	RCT	Improved parenting knowledge at 6 and 12 months. Lower self-reported scores for infant externalising, separation distress at 12 months. No difference in social support, depression, substance use, maternal involvement, home environment.	Shared experience (parenting) Bilingual Sensitive and empathic Shared ethnicity and culture	Behaviour change focus Education/information Home visit 1:1	Patterson's Developmental Model Theory of Planned Behaviour
97.	Wasserman (370)	Social support among Latina immigrant women: bridge persons as mediators in cervical cancer	US	Latina immigrant churchgoers	Cohort study	Knowing a bridge person was associated with significantly increased probability of screening, though the probability was higher for knowing a promotora (different role), but	From the community Bilingual More educated than promotoras Not all shared ethnicity Natural helpers	Outreach Case finding Behaviour change (health service use) Health education Translation	Strength of weak ties Social support

		screening				fewer women knew them.	Trained	Transportation Case management Social support Brokering between clients and services “instrumental aid”	
98.	Whitley (371)	Measuring return on investment of outreach by community health workers.	US	Underserved men	Economic analysis	CHW programme reduced urgent care, inpatient and outpatient use and overall costs.	Members of the community, trusted	Education Behaviour change Care management System navigation Insurance enrolment	None
99.	Williams(372)	Learning from successful interventions: A culturally congruent HIV risk-reduction intervention for African American men who have sex with men and women	US	African American men who have sex with men and women	Description of intervention development	Describes intervention and how important components include shared gender, a specified population, theoretical base, “cultural and historical congruence”, skill-building elements, and specific intervention goals.	Ethnic matching Gender matched Rapport building skills	Group sessions Exploring past and present behaviour – behaviour change Education/information (client knowledge/skills) Non-stigmatising community venues	“Elements of” Theory of Reasoned Action and Planned Behaviour Empowerment theory Critical thinking Cultural affirmation
100.	Williams(373)	Breast cancer and cervical cancer control program enrollees inform the kin keeper curriculum	US	Black, Latina and Arab women	Participatory intervention development, before and after study	Women’s views were used to develop the curriculum. CHW knowledge scores significantly improved following training.	Some shared ethnicity Matched gender Workers rebadged – recruited from other CHW programmes	Education/information Behaviour change Empowerment	‘Kin Keeper’ model
101.	Williams(374)	Moving from theory to practice: implementing the Kin Keeper Cancer Prevention Model	US	African American women	Feasibility study	Before and after breast cancer literacy scores significantly different. Clients valued the intervention and planned to make changes.	Trained Willingness to work on project Volunteer or paid Shared ethnicity Shared gender	Worker’s home setting Clinic setting Home visits Referrals Behaviour change Family approach Connect clients with providers Education/knowledge/skills (incl sdlf-examination)	‘Kin Keeper’ model

								Access to services House parties	
102.	Wilson(375)	Hair Salon Stylists as Breast Cancer Prevention Lay Health Advisors for African American and Afro-Caribbean Women	US	African American and Afro-Caribbean Women	RCT	Significantly increased odds of self-reported exposure to breast health messages in intervention group. Significantly improved odds of self-reported self-reported BSE and intention to attend clinical breast examination in those who were exposed to messages.	Culturally sensitive Existing role in community (beauty professional) – trusted, “opens up communication” Rebadged existing workers bvfShared ethnicity (though a mix of African American and Afro-Caribbean) Willing to deliver intervention Trained staff	Behaviour change Community setting (beauty salon) Counselling	Social Cognitive Theory
103.	Woodruff (376)	Recruitment, training outcomes, retention, and performance of community health advisors in two tobacco control interventions for Latinos	US	Latino community	Before and after study	Characteristics, recruitment, training, retention and performance of two different programmes are described. Training significantly impacted on knowledge and psychosocial constructs e.g self-efficacy, of workers. Post-intervention improvements in measures indicating client behaviour change.	“Indigenous” Shared ethnicity and immigrant status Members of existing social networks (e.g. church, seniors) Leadership qualities Compassion Familiarity with the community Natural caregivers (natural helpers?) Strong sense of community Information/education Trained workers	Behaviour change Empowerment Social support Role modelling Home visits plus phone calls Social support, modelling, stimulus control, problem solving, practical skills/techniques, motivational interviewing, role playing, teaching, skills development, goal setting plus other behaviour change techniques	Social cognitive theory Social learning theory
104.	Yu(377)	Culturally Competent Training Program: A Key to Training Lay Health Advisors for Promoting Breast Cancer Screening	US	Chinese American women	Before and after study	Significant increase in worker knowledge and self-efficacy post-training. Younger, employed workers with a positive perception of the training had higher self-efficacy.	People whom others naturally turn to Trained – including training in cultural competence, understand client group Bilingual Enthusiasm for helping others Educated – at least high school diploma	Behaviour change Access to care Link services to communities	Bandura Social Learning Theory

Additional studies identified from Google searches, reference lists 2005-10

	Author	Title	Country	Population	Methods	Key findings	Person	Role	Theory
1.	South(97)	People in public health. Expert hearings: a summary report.	UK	CHW service users in the UK	Not stated: report of 'expert hearing' engagement events	Participants reported qualities of lay people in public health roles (see right), benefits to lay people who take on these roles (employment, enjoyment, confidence, skills) and the barriers and challenges in implementing these roles.	Committed to their communities Known and trusted by communities Knowledge of what life is like for community, "street intellect", local cultures (means can present information in appropriate way) Shared experience Down to earth attitude Not professional – people more confident to approach them Trained Volunteers	Information Educating professionals	None
2.	Brownstein(103)	Community health workers as interventionists in the prevention and control of heart disease and stroke	US	Individuals with hypertension	Review (not systematic)	CHWs have improved access, continuity and treatment adherence significantly in hypertension. Describes CHW roles (see right). Translating research into practice challenging, makes recommendations for doing so. Published evidence does not give full descriptions of CHW roles, training and experience.	Trusted respected members of community Paid Selected by community Trained	Behaviour change (self-care) Bridging culture/language/literacy gap with services Social support Education (individual and community) Access to services, navigation Monitor and promote treatment adherence Clinical monitoring (BP) Advocacy for patient/community Group and 1:1 Home and clinic settings	None
3.	De Jesus(378)	HIV/AIDS and immigrant Cape Verdean women: Contextualized	US	Cape Verdean immigrant women	Qualitative study	Participants challenged perceptions of institutional/community reality, gender relations, and traditional	Similar experiences to clients – credibility Most were migrants (shared	Informational, emotional and concrete support Outreach	None

		perspectives of Cape Verdean community advocates				thought processes. Analysis suggests HIV/AIDS is not an individual, but community level problem, requiring community-level intervention.	experience) Findings suggest understanding/knowledge of target population		
4.	Dickson-Gomez(113)	Times and places: Process evaluation of a peerled HIV prevention intervention.	US	Injecting drug users	Mixed methods process evaluation	Peer Health Advocates delivered outreach activities alongside paid staff and independently. Most outreach was in public places but some was behind closed doors in high risk settings. Drug users sought them out and considered them credible. This model reaches individuals beyond the reach of traditional paid staff.	Shared experience (drug use, homelessness) Work within social network Volunteers Trained Selected to be central to the drug user network, opinion leaders, credible, socially/physically/temporally close to users – thought to influence power of persuasion When known to client reduced fear and appeared to increase engagement	Behaviour change, information, education, role modelling – harm reduction practices Health advocacy Settings – on street, in situ where drugs being used (in place and time) Work alone, with staff or with each other Provide resources (e.g. safe injecting kit, condoms) Data collection Facilitate engagement with paid staff	Persuasive communication Diffusion theory Dynamic Social Impact Theory
5.	Ingram(379)	Breastfeeding peer supporters and a community support group: evaluating their effectiveness	UK	Breastfeeding women	Before and after study	Training increased peers' knowledge and confidence. Attendance increased from 3 to 10 per week. Mothers appreciated consistent advice and ability to talk about breastfeeding. 7% increase in BF rates in intervention area (3% in rest of locality).	Local Shared experience (successfully breastfed children) Trained Skills and knowledge Paid workers	Group and 1:1 Telephone Accompany to group Encourage, support Information-giving Behaviour support (breastfeeding) Demonstrate breastfeeding (not clear if this is CHW or client) Cost saving	None
6.	Kennedy(144)	Lay food and health worker involvement in community nutrition and dietetics in England: definitions from the field.	UK	Hard to reach neighbourhoods	Qualitative	Variation in nomenclature and lack of definition of role is a barrier to development of the role. Participants suggested two terms: Community Food Worker and Community Nutrition Assistant, but no consensus in this or the role definition.	Familiar with local culture and organisations in community – enables them to reach clients Able to provide culturally appropriate advice Share social/cultural/ethnic background Local Shared experience – women-	Semi- or unskilled work Cost effective Credible and culturally appropriate advice Bridge socio-cultural differences to improve health access Behaviour change Groups Demonstration/facilitation	Lay helping, natural helping, paraprofessional (though used interchangeably in the literature)

							homemakers	(cook and taste), awareness-raising Community needs assessment and development Running food cooperatives Education Time to do the work (unlike professionals) Task shifting	
7.	Plescia (380)	A Lay Health Advisor Program to Promote Community Capacity and Change Among Change Agents	US	Deprived, predominantly African American population	Qualitative	LHAs internalise community advocate role, make health behaviour changes. In understanding wider determinants of health LHAs began to focus more on advocacy for change in society and institutions	Natural helpers in the community Trained People who assume responsibility for community improvement, seek new knowledge/skills, actively recruit others,	Outreach Education Referral Advocacy Behaviour change – change attitudes and willingness Empowerment Community capacity building Home visits, groups, house parties, walking groups Homes, community venues, street-based Running farmer’s market Media campaigns, campaigning Health promotion in schools and restaurants	Community empowerment models
8.	Springett (60)	The challenge of combining 'lay' knowledge with 'evidenced-based' practice in health promotion: Fag Ends Smoking Cessation Service	UK	Smokers in deprived communities	Qualitative	Case study of how CHWs integrated national policy and local intervention. Social model. Describes characteristics (see right) and highlights the tension between medical model and consumer driven community health promotion.	Volunteer and paid Not professionals – an “asset” Shared experience – ex smokers successfully quit – know what clients are going through “Real people” Trained at diploma level – gives credibility and skills	Group, 1:1 Face to face and telephone Flexible, convenient location and method of support – driven by client need Individual focus Social support Monitoring (CO monitor) Information (verbal and written) Behaviour change support	Stages of change (but more experience- than theory-informed) Eng’s spectrum Similar to motivational interviewing
9.	Visram (119)	Health Trainers a Review of the	UK	Various lay service user	Review	Presents models and theories underpinning health promotion	From local communities Understand	Group and 1:1 Behaviour change –	Motivational interviewing

		Evidence.		populations		(not specifically CHWs). Outlines key models of LHA, Peer Educator, Advocate from US. Outlines examples of good practice from UK, defined as targeted and generic community and individual approaches. Implementation challenges and approaches to evaluation discussed.	concerns/experiences of clients Existing role/job in community Volunteer or paid Trained Natural helpers Bilingual – can advocate/mediate Share language, beliefs, social and cultural characteristics – messages more likely to be heard, personalised, credible role model	motivate, set goals, practical support, treatment adherence, disease management, cooking and shopping, oral health, lifestyle Translation of messages between professionals and clients, cultural brokers, advocacy Connect community and health services Social support Practical support Emotional support Community development/engagement Facilitate access to care and appropriate use of resources Reduce costs Provide health care Education Counselling Role modelling Support family/friends of client	LHA model
10.	Lehmann (381)	Community Health Workers: What do we know about them?	International	All CHW clients	Review (not systematic)	Wide-ranging report exploring feasibility, effectiveness, roles, characteristics, contribution to health and wellbeing, support needs, sustainability, implementation and cost of CHWs across the full range of international contexts. Developing world focus though some information on middle and high-income countries.	Selected by communities – not the case in practice Work in community Answerable to community Trained (shorter than professional) Not professionals Volunteer and paid	Bridge community and services Community development Referral Data collection Home visits Basic health care Sanitation, disease control Education Health surveillance Behaviour change (service use, health behaviours) Reduced cost Fill gaps where no professionals	None

Key pre-2005 literature included in phase 1

	Author	Title	Country	Population	Methods	Key findings	Person	Role	Theory
1.	Dennis(73)	Peer support within a healthcare context: a concept analysis	Non-specific	Non-specific	Concept analysis	<p>Defines peer support</p> <p>PS models address transitional, chronic and acute stressors, plus health promotion</p> <p>Emotional/informational/appraisal support key attributes(these are defined) – instrumental not a central feature</p> <p>Presents conceptual model of PS</p> <p>Presents direct, buffering and mediating effects in peer context, and adverse outcomes of the PS model</p> <p>Conceptual discrepancies exist of natural helping and paraprofessional support</p> <p>Lay to paraprofessional spectrum presented</p>	<p>Volunteer and paid workers</p> <p>Internal to community</p> <p>Similarities (demographics, experience) – homogeneity</p> <p>ass'd with understanding, empathy and mutual help, effective role modelling</p> <p>Specific, experience-derived knowledge</p> <p>Self-selected or health professional selected</p> <p>Trained (but maintain 'peerness')</p> <p>Different understanding to naturally embedded peers</p> <p>Natural helpers distinct from peers- experiential knowledge/identification not key, natural network, not in formal programme,</p> <p>Paraprofessionals more trained, accountability to services not population</p>	<p>Behaviour change</p> <p>Case management</p> <p>Access to/uptake of services</p> <p>Advocate, leader counsellor, mediator, linking agent, or cultural translator</p> <p>Information/knowledge/skills</p> <p>Adjustment and coping</p> <p>Buffer stressors</p> <p>Augment social networks, alleviate isolation</p> <p>Group/1:1</p> <p>Home visits</p> <p>Clinics, home, hospital, community venue, telephone/computer</p> <p>Emotional, informational, appraisal support</p> <p>Informal health care</p> <p>Role modelling</p>	<p>Direct, buffering and mediating effect models</p> <p>Social Cognitive Theory</p> <p>Peer support</p>
2.	Earp(145)	What lay health advisors do: an evaluation of advisors' activities.	US	African American women eligible for breast screening	Longitudinal survey	<p>Reports activity of LHAs in North Carolina – 1 group every 3 months, 1-3 individual contacts each week.</p>	<p>Known and trusted by clients</p> <p>Volunteers</p> <p>Shared ethnicity</p> <p>Live in same county</p> <p>Trained</p> <p>Work in social network</p> <p>Knowledge, communication skills, group presentation.</p>	<p>Counselling</p> <p>Access to services – information, reminders, arrange/accompany/transport to appointments</p> <p>Community mobilisation to improve health services</p> <p>“Social support” (information, feedback, emotional support, transport)</p> <p>Behaviour change – attitudes, motivation (mammograms)</p> <p>Addressing fears</p>	None

								<p>Problem solving (payment) Group and 1:1 Education/information Presentations, distributing materials Churches, homes (advisor and client), senior centres, workplaces, family gatherings, laundromats, exercise/sewing classes, club meetings, shops, bus, street, community colleges.</p>	
3.	Eng(72)	Lay health advisor intervention strategies: a continuum from natural helping to paraprofessional helping.	US	Various	Commentary	Describes key aspects of LHA model, including natural helping to paraprofessional helping spectrum	<p>“Indigenous” Trained Paid or volunteer Embedded natural helpers or not</p>	<p>Social support Link between community and service, bridge Information, advice, referral, emotional support May perform professional tasks Community mobilisation</p>	None
4.	Eng(168)	Lay health advisors as community change agents.	US	A range of LHA service clients	Review (not systematic) and conceptual modelling	Reviews LHA programmes and research. Discusses determinants of, and outcomes of lay helping. Presents conceptual model for lay helping role in behaviour, social network, collaboration with services, community capacity and problem solving. Presents a model for planning and implementing LHA services.	<p>Clients naturally turn to Not professionals Knowledge of community resources Credibility in community Able to access community Interested in health and social issues Personal warmth Ability to role model Leadership skills Live in community “Ability to bridge” between professionals and clients culture Similar race, ethnicity, age, education</p>	<p>Bridge between culture and professionals Advice Support Tangible aid Informal, spontaneous support Mediate between professionals and patients Assist to deal with crises, life events, challenges and stresses Counselling, behaviour change (lifestyle, treatment adherence) Social support Education Mobilise for improvements in health system Complement professional</p>	Social support

								role Advocacy Role modelling	
5.	Love(7)	Community health workers: who they are and what they do.	US	Various	Cross sectional survey	No clear definition of role or skill set – a barrier to uptake. 25% of providers used CHWs, and use was increasing. Most were women and of colour. Work focuses on AIDS and maternal and child health.	Volunteer or paid “indigenous” – ethnic, language, experience, socioeconomic status similar – understand culture and strength of community Varying levels of education Trained Outreach, communication, conflict resolution skills Group management skills, self management skills	Cultural brokers between community/service Health care Information, translation, resources, access to services, referral, advocacy, case management, system navigation, reduce cultural barriers to care, Community settings Outreach	None
6.	Roman(382)	Community health workers: examining the Helper Therapy principle.				Workers benefited from being CHWs in terms of self-perception, belonging, information and skills development, work experience. ‘Helper’s Perception Measure’ may be a useful tool	Paid or volunteer Sociodemographically similar to clients – bridge differences, engage hard to reach clients	Outreach Information, guidance, psychological support, support to access resources, prenatal care, and link to services	None
7.	Shiner(78)	Defining peer education	UK	A range of individuals at risk of drug use – NB young people focus, outside eligibility criteria but included as a key paper	Literature review and qualitative study	Ambiguous term. Operational framework presented. Key elements: what=‘peeriness’; aims and methods; how peers are involved. Approaches can be about development of the peers themselves, or delivery of interventions by the peers, or both.	Friends/associates/ or strangers? Shared characteristics – roles, groups (e.g. ethnic), experiences were matched for, shared identity, one characteristic matched doesn’t constitute shared identity Peers more credible, less biased Trained	Role modelling Challenging behaviour/attitudes Information Working with not doing to Empowerment Behaviour change Informal and formal contact Setting up services Advocacy Resources – transport, childcare, making appointments Accompany to appointments Assist to access resources/services	Peer Education Theory

8.	Swider(147)	Outcome effectiveness of community health workers: an integrative literature review	US	Range of clients	Integrative literature review	Little consensus about role or effectiveness of CHW. Effectiveness inconclusive.	Live in community Selected by community Accountable to community Volunteer and paid Similar to clients (disease status, ethnicity, gender, or risk behaviour)	Health care (incl substituting for professionals) Education Cultural mediation Counseling Outreach Case finding Social support Health education, Advocacy for individuals and community Increasing access and uptake Individual and community capacity building Providing direct services Reducing costs Behaviour change	None
9.	Witmer(156)	Community health workers: integral members of the health care work force	US	CHW service client populations	Review (not systematic)	Describes ways in which CHWs can contribute to healthcare in the US focusing on roles in health care teams (see right). No accepted definition of CHW.	Work in communities Trained Member of client community/ ethnic group/ family Shared language	Outreach Empower people to identify own needs/solutions Access to care Behaviour change – appropriate services use, adherence Cultural link between community and providers, communication with and education of providers Continuity and coordination of care Reduce costs Education Clinical duties (screening, detection, emergency care)	None

Appendix 3: Table of studies included in phase 2

Studies identified from South et al

	Author	Title	Country	Population	Methods	Key findings	Person	Role	Theory
1.	Andrews(383)	Using community-based participatory research to develop a culturally sensitive smoking cessation intervention with public housing neighborhoods	US	Deprived African American smokers	Process evaluation of community participatory research and RCT	'Surface and deep structure' health promotion characteristics of programme described. Surface are materials, resources, incentives. Deep are kinships, collectivism, storytelling, spiritual expressions. Significantly increased odds of continued abstinence in intervention group.	Skills - budget cooking Shared ethnicity and gender From the community Shared experience (ex-smoker) – could share stories, participants can relate "Insider knowledge" – helps to develop intervention "Credible and influential" Able to "navigate sociocultural environment"	Developing materials and interventions Running groups Preparing food for clients Convenient times Group and 1:1 Social support Behaviour change support – empowerment, goal setting, self esteem Sharing stories Leading group prayer Cultural brokers between provider and population, translating	Surface and deep structure cultural sensitivity (Resnicow)
2.	Casiday(384)	Volunteering and health; what impact does it really have?	High income countries	Volunteer clients and volunteers	Systematic review	Benefits to volunteers: decreased mortality, improved health, life satisfaction, ADL abilities, increased social interaction and support, health behaviours, illness coping skills. Benefits to target population: self esteem, disease management/acceptance, breastfeeding, parenting, mental health, hospice patient survival, lifestyle behaviours, treatment adherence, relationships with professionals. Context was key	Former patients – expertise Local/other knowledge Volunteers – "less constrained by professional roles" – more trust and intimacy May be both volunteer and service user Empathy	Intermediaries between patients and professionals "Peer support" Behaviour change/promotion (Cancer support Tracing non-attenders Visiting, mentoring, befriending, counselling Healthcare Emotional support, psychological/mental health support Lower cost	Role theory
3.	Craine(385)	Reducing the risk of exposure to HCV	Wales	Injecting drug users	Feasibility study	No major barriers to implementation	Shared locality Shared experience (IDUs)	Education Distributing literature	None

		amongst injecting drug users: lessons from a peer intervention project in Northwest Wales				High level of risk in clients at intervention site Intervention feasible	'Peers' – enables access Volunteers	Data collection Informing intervention development	
4.	Davis Smith(386)	Active ageing in active communities: Volunteering and the transition to retirement	UK	Volunteers	Qualitative	Describes motivations for, benefits to, barriers to, and approaches to increase and support volunteering.	Local Extensive social networks Volunteers Family history/ethos of volunteering From same background – easier to access community	None reported	None
5.	Devilly(387)	Prison-based peer-education schemes.	High income countries	Prisoners	Review (not systematic)	Describes history of prison peer schemes, examples of effective programmes, and discusses barriers and recommendations for implementing peers in prisons.	Shared experience – in prison, offender Credible, role models – have changed despite difficult circumstances Specific knowledge of risks to clients and strategies to address Speak the same language Trained	Helping Teaching Role modelling Fill gaps in prison healthcare Behaviour change (reoffending, safe sex and drug use) Listening, befriending Storytelling Group facilitation Suicide prevention Counselling Group and individual Prison setting	Social learning theory Social inoculation theory Differential association theory Peer training /facilitation /counselling /modelling /helping /education
6.	Garfein(388)	A peer-education intervention to reduce injection risk behaviors for HIV and hepatitis C virus infection in young injection drug users	US	Injecting drug users	RCT	IDUs were successfully trained as peer educators. IDU peers' injecting risk behaviour reduced compared to control, but sexual risk behaviour and HCV infection rate did not.	Shared experience – IDU Work in own social network/community of IDUs	Education/information Behaviour change Outreach "information table" on street or near needle exchange	Social learning theory Information, motivation, behavioural skills model
7.	Greenhalgh (389)	Sharing stories: complex intervention for diabetes education	UK	Minority ethnic type 2 diabetics	Action research	Intervention well-evaluated. Advocates and clients needs were met. Organisations varied in adoption of approach.	Existing workers – bilingual health advocates Matched ethnicity and language	Sharing stories and facilitating sharing stories	

		in minority ethnic groups who do not speak English				Oranisation support was an important aspect of the intervention.	Trained and developed Varying skills background		
8.	Hinton(390)	The community health advisor program and the Deep South Network for Cancer Control - Health promotion programs for volunteer Community Health Advisors.	US	Underserved populations	Description of intervention	Describes how model has been adapted for this setting and population.	Natural helpers Informal leaders Trained Knowledge and skills Volunteers	Behaviour change (mammogram and cervical screening, nutrition) Information Social support Educating providers about community needs Community organisation Group and 1:1	CHA model Paulo Friere Natural helpers
9.	Kash(391)	Community health worker training and certification programs in the United States: findings from a national survey	US	CHWs	Survey	CHWs targeted at underserved/hard to reach populations. Three trends in training: community college schooling, on the job training and state-level accreditation.	Knowledge – community, culture, behaviour, needs Volunteer and paid	Health advice Access to health insurance and housing Health monitoring Informing providers on service improvement Reduced cost Outreach Healthcare Mental health support Health education Community development Social support	None
10.	Kim(392)	Using community-partnered participatory research to address health disparities in a Latino community	US	Latino population	Participatory research	Describes research process and makes recommendations for future participatory research in this community	Aware of community's history, strengths, challenges Work within social network Shared language	Link between community and health system, facilitate culturally competent care. Providing refreshments, modelling healthy choices Group work Behaviour change and education (lifestyle behaviours) Community settings (church/work/homes/schools) Data collection Child care/equipment during sessions	Lay Health Advisor model

11.	Muirhead(393)	The effect of a programme of organised and supervised peer support on the initiation and duration of breastfeeding: a randomised trial	UK	Mothers and infants	RCT	No significant differences in breastfeeding between intervention and control.	Local Trained Volunteer Shared experience – breastfeeding Knowledge and skills Uniforms	Telephone Group support Home visits Support with breastfeeding problems Referral to professional	None
12.	Neuberger (394)	Volunteering in the public services: health and social care	UK	Volunteers and their clients in public services	Political report	Outlines the state of volunteering in the UK, rationale for using volunteers, barriers to implementation, and recommendations for the future.	Shared experience (diagnosis) Volunteers Previous service clients Local knowledge	Inform service development, educate staff Emotional support Practical support Groups Self management	None
13.	Nichols(395)	Texas' community health workforce: from state health promotion policy to community-level practice	US	Promotoras	Report on process of implementing statewide CHW certification	Process was a success with 700 CHWs expected to be certified by the end of the year.	Shared experiences Live in same communities – able to relate Paid/unpaid Community leaders Trained Knowledge Skills <ul style="list-style-type: none"> • Communication • Teaching • Organisation • Advocacy • Interpersonal relations • Capacity building • Service coordination 	Link between clients and health services, cultural mediation Counselling Social support Health education (culturally/linguistically appropriate) Advocacy for community and individual Community capacity building Referral Follow up Interpreting Motivate individuals Identifying and accessing benefits	None
14.	Paskett(396)	Randomized trial of an intervention to improve mammography utilization among a triracial rural population of	US	White/Native American/ African American rural women	RCT	Significantly more mammograms at 12 months, reduced barriers, and higher belief scores in intervention group	Lived in community CHWs were professionals (e.g. retired nurse) Trained Minorities but not clear if matched	Behaviour (screening attendance) Information Face to face 1:1 Visits Phone calls Data collection	PRECEDE-PROCEED model Communication behaviour change model Minority health communication

		women							model Transtheoretical model
15.	The Countryside Agency(397)	Walking the Way to Health 2000 – 2005 Summary of local health walk evaluations. .	UK	UK communities	Review of evaluations (not systematic)	Summarises demographic and health characteristics of participants, reasons for participation, benefits (health and social) , the role of volunteers, sustainability and pedometer use. Evaluation quality limits conclusions.	Volunteers Not matched by demographics or experience	Group facilitation Physical activity (walking group)	None
16.	Watt(398)	The process of establishing, implementing and maintaining a social support infant feeding programme.	UK	Mothers and infants	Implementati on evaluation	Describes recruitment, training and support of peer supporters for infant fruit consumption and breastfeeding continuation. Training was effective, but ongoing support required. Retention of volunteers is key.	Volunteers Training Knowledge Skills (communication) Not professional Local (but several boroughs) but not matched with anyone they knew or who lived in immediate area 'Similar background' to clients Mothers (no feeding type essential)	Behaviour support Social support Home visits	Social support
17.	Webster(399)	Evaluation of Leeds Healthy Living Centres	UK	Deprived communities	Evaluation report	A range of schemes were evaluated and findings suggested mprovements in implementation and in health and community participation.	Bilingual, shared ethnicity 'Cultural/faith-sensitive' Volunteer and paid Local Trained	Cardiac rehabilitation Behaviour/lifestyle Translate/deliver in community language Empowerment Community development	None
18.	Weeks(400)	The risk avoidance partnership: Training active drug users as peer health advocates	US	Drug users	Mixed methods evaluation	Advocates successfully took the intervention into their drug using social network. They reported positive changes in their own lives as a result.	Share experience (drug users) – can communicate and model Trained Work within and beyond social network 'Reflect ethnic and gender composition' of population, similar to peers Selected individuals with central network or	Behaviour change (drug use, safe use, sexual health) Community settings (where drug use occurs) – physical and social immediacy (DSIT) Advocacy Education Role modelling Community action – harm reduction Education, information (face	Diffusion theory Dynamic social impact theory Peer modelling theory Community organising Group action

							gatekeepers of drug use site	to face and written materials)	
19.	Welsh(401)	The effect of two church-based interventions on breast cancer screening rates among Medicaid-insured Latinas.	US	Medicaid-insured Latinas and non-Latina whites	Controlled trial	No significant differences in screening between intervention and comparator for Latinas. For non-Latina whites there wa significantly higher screening rate in the comparator (printed materials) at follow up.	Trained Paid Work with their peers Shared faith	Church based Behaviour change (screening) Church outreach visits Groups Homes	None

Studies found through regular searches and Zetoc alerts

	Author	Title	Country	Population	Methods	Key findings	Person	Role	Theory
1.	Allen(38)	Community Outreach and Cardiovascular Health (COACH) Trial: a randomized, controlled trial of nurse practitioner/community health worker cardiovascular disease risk reduction in urban community health centers	US	Patients with CVD, type 2 DM, hyperlipidaemia, hypertension	RCT	Intervention arm – significantly improved cholesterol, LDL, TG, systolic BP, diastolic BP, HbA1c, perceptions of quality of care.	Trained Shared ethnicity, geographical and socioeconomic background Shared experience and perspective enhances trust, enables linking to health services	Behaviour change (lifestyle, treatment, clinic attendance) Telephone contact	None
2.	Alvillar (402)	Recommendations for developing and sustaining community health workers.	US	CHW clients	Summit report	Summit delegates concluded that there was a need to define the CHW workforce, set standards for training, conduct economic analysis, address reimbursement, and develop support networks for CHWs. Makes clear that 'system navigator' is a function that many individuals (e.g. nurses) can perform not a specific occupation.	Trusted member of, or close to community – facilitates bridging role, culturally competent care	Outreach Education Counselling Social support Advocacy Access to services, link between community and services, system navigation	None
3.	Arvey(107)	Identifying the core elements of effective community health worker programs: a research agenda.	US	Any CHW clients	Commentary	CHW programmes are varied. Identifies need to research core elements of CHW approaches. Critiques terms e.g. 'lay'. Culture complex. Unclear which aspects important in CHW interventions. Context not adequately considered (clients, settings etc).	Member of communities (assumed to deliver in culturally appropriate manner). Lay - Not professional. Not expert? Peer – "some commonality" Leadership characteristics May become institutionalised and less 'lay'. Paid and volunteer	Health services Service navigation Behaviour change – influence, motivate Information Liaison between community and services Activism Advocacy Settings – homes, workplaces, churches, health venues, community centres	None

								Outreach Group and 1:1 Activists or delivery agents? Use of multimedia tools	
4.	Ayala(403)	Effects of a promotor-based intervention to promote physical activity: Familias Sanas y Activas.	US	Latino population	Time series (within participants) study	Intervention associated with significant improvements in systolic BP, waist circumference, fitness, flexibility, use of community resources, depressed mood, perception of barriers to physical activity. Self efficacy decreased.	Paid and unpaid Shared language (bilingual or monolingual) Trained Minimum education standard	Behaviour change (PA) Groups Homes, social and health service settings, school, YMCA PA instruction (dance, walking circuits etc) Variable session times	None
5.	Balcazar (404)	An ecologic model using promotores de salud to prevent cardiovascular disease on the us mexico border	US	Description of intervention development and process evaluation	Hispanics at risk of cardiovascular disease	Ecological approach to intervention development deemed effective. 60% of recruited participants attended a group education session and 62% attended one or more exercise sessions.	Certified paid workers Trained Relevant previous experience Skills (computer, CPR) Ability to exercise	Education and behaviour change (self-management) – goal setting, self-monitoring Data collection Group work Group leadership/facilitation (cooking, exercise, shopping, coffee talks)	Ecological approach
6.	Balcazar(405)	Community health workers can be a public health force for change in the United States: three actions for a new paradigm.	US	Any CHW clients	Commentary	Releates the increasing importance of CHWs, their potential role in the workforce as a community wellness (not sickness) model, and how it is important to utilise all of the potential roles CHWs can perform. Describes limitations of RCT methodology to explore CHW effectiveness.	Trusted member of community Usually knowledge of community Shared life experience Experience-based expertise leads to trust and support, clients candid about problems – unique to CHWs not professionals Patience, persistence, empathy, respect	Liaison between community and services, communication Facilitate access, service navigation, case management Increase cultural competence of services Outreach Education Social support Advocacy Counselling Individual and community capacity building Monitor health and treatment adherence Extenders/assistants/cost reducers in clinical services (this is criticised)	None

7.	Ball (406)	A qualitative exploration of a health trainer programme in two UK primary care trusts	UK	Qualitative	Health Trainers and clients	The Health Trainer approach was perceived to be effective in addressing wide-ranging health and welfare issues. Clients, workers, and workers' friends, families and colleagues were reported to benefit from the programme.	Not professionals No formal qualifications Trained Knowledge and skills – CHWs reported gaps in their training People person Understanding of community	Signposting to services Supporting behaviour change (lifestyle), goal setting, Substitute for professionals Time to develop rapport Holistic Convenient times	None
8.	Brown (407)	Healthy families Brooklyn: working with health advocates to develop a health promotion program for residents living in New York City housing authority development	US	Underserved populations	Description of intervention and before and after study	Describes intervention development and characteristics, and pre- post test knowledge scores of CHWs (significantly increased following training).	Culturally competent Shared ethnicity, culture, language Often part of community Trusted by community "Frontline professionals" Trained Volunteers Communication skills Language skills Reliable, dedicated Computer skills Involved in community Existing health knowledge	Access to benefits Health education Access to health/social services, system navigation, liaison with services Advocacy Patient navigators distinct and support with insurance, logistics and financial issues. Outreach Venues – familiar, trusted, accessible Empowerment Address specific health issues, e.g. asthma 1:1 Group presentations Home visits	None
9.	Brownstein (408)	Community health workers "101" for primary care providers and other stakeholders in health care systems.	US	All CHW clients	Commentary	Describes CHW roles (see right) and their potential as part of health service provision.	Trusted members of community or unusually close to community – leads to trust Live in community – understand social context Paid Knowledge and skills (experience-based expertise)	Link between services and community, access to services and resources Improve quality and cultural competence of services, educate providers System navigation Community capacity building (knowledge and self-sufficiency building) Outreach Education Counselling	None

								<ul style="list-style-type: none"> Social support Advocacy Direct services (e.g. disease monitoring) Language/cultural translation Understand and motivate risk behaviour change and engagement in support Reduce costs Settings (schools, religious venues, community venues, homes, street, workplaces, clinical venues). 	
10.	Carter-Pokras(409)	Perspectives on Latino lay health promoter programs: Maryland, 2009	US	Latino populations	Qualitative	Explores characteristics(see right) and implementation issues for CHW programmes. Needs assessments, advisory boards, identification of suitable CHWs and extensive training were key elements.	<ul style="list-style-type: none"> Reflect the community (clients more likely to listen) From the community Have a network to access Matched ethnicity “Sensitive to the issue” Culturally/linguistically competent Committed to community Motivated Familiar with community Communication skills Want to help community Friendly, engaging Volunteer and paid Trained – outreach, facilitation, anger management, listening, communicating, presenting. 	<ul style="list-style-type: none"> Access to health care Outreach Group facilitation Information (linguistically and culturally appropriate) Reduce cost of care Cultural broker/navigator between clients and services 	None
11.	Clark(410)	Peer support to promote physical activity after completion of centre-based cardiac rehabilitation: evaluation of access	UK	CVD patients who had completed cardiac rehabilitation	Comparative study (not randomised)	Patients choosing to take part significantly different (older and more likely to be female). Significant decline in physical activity in comparison group, levels maintained in intervention group.	<ul style="list-style-type: none"> Former patients/service users Can provide insider perspective on disease and behaviours Not professional – more likely to “identify” with patients 	<ul style="list-style-type: none"> Hospital, community, clinical settings, homes Telephone and internet Mentors Establishing relationship, making contact, discuss issues, respond to questions Increase service capacity 	None

		and effects.					Trained	Support risk factor reduction, behaviour change Reduce anxiety Increase access to services	
12.	Colleran(411)	Building capacity to reduce disparities in diabetes: training community health workers using an integrated distance learning model.	US	Diabetes patients	Before and after study	CHWs significantly improved diabetes knowledge, attitudes and confidence in clinical and non-clinical skills following training. CHWs described personal benefits from participation in the programme.	Trained Knowledge Skills Confidence	Information/education Behaviour support Link to health system Remove barriers “cultural, language, financial, and community” Advocacy Empowerment Self-management support Assessment of clinical care maintenance Clinical care (foot examination)	None
13.	Cook (412)	Engaging with marginalised communities the experiences of the London health trainers	UK	Qualitative	Health Trainers and clients	Health Trainer role not clear. Workers not always part of community. Health service culture barrier to engagement – third/community sector providers perceived to engage better.	No professional, lay – linked to engagement, but many aspired to be Trained Understand community Shared stake in community Paid and unpaid Ability to form relationships with clients Similar to clients (but not as similar as they perceived) Local knowledge Empathy – though not always the case Approachable Accessible	Bridge health services and communities Behaviour change Generic approach Group work Information Community development Community engagement (events, promotion) Empowerment	None
14.	Dale(413)	What is the effect of peer support on diabetes outcomes in adults? A systematic review.	International	Diabetes patients	Systematic review	Heterogeneity in design, setting, outcomes, measurement. 25 studies (14 trials) included. Statistically significant improvements in glycaemic control, BP,	Experiential knowledge of stressor Similar characteristics to target population (age, gender, disease, socioeconomic status,	Social support Exploration of feelings Problem solving Goal setting Self management Self efficacy, empowerment	Social support, helper therapy principle, social learning theory, social comparison theory

						cholesterol, BMI, physical activity, self-efficacy, depression, perceived social support.	culture, culture, religion, ethnicity Volunteer and paid Trained	Face to face, telephone, online One to one and group Peer support – emotional, appraisal, informational Education Behaviour change Health service access	
15.	Daniels (414)	Increasing knowledge of cardiovascular risk factors among African Americans by use of community health workers: the ABCD community intervention pilot project.	US	African Americans	Pilot study	CHW group significantly higher knowledge score post-intervention. Significant decrease in HDL cholesterol in intervention group, no other significant clinical outcome changes.	Shared ethnicity Member of church or surrounding community Therapeutically controlled diagnosed ABCD risk factors Trained	Group sessions Clinical testing/monitoring Church setting Education Role play Telephone support	Social Learning Theory
16.	Dudley(415)	Beneficial effects of a combined navigator/promotora approach for Hispanic women diagnosed with breast abnormalities	US	Ethnic minority women with breast abnormalities	Quasi-experimental study	Intervention associated with significant reduction in time from diagnosis to treatment, particularly in Hispanic group.	Patient navigators and promotoras in intervention PNs were professional/college educated Promotoras had community health education background	Care management model – “intake, assessment, analysis of needs, development of a care plan, implementing the plan, tracking, and evaluation” System navigation Promotoras focused on the cultural/social barriers to system navigation, e.g. childcare arrangements,	Care management model
17.	Durant (236)	Social support among African Americans with heart failure: is there a role for community health advisors?	US	African Americans with heart failure	Qualitative	CHWs reported challenges in addressing life and health needs, and that clients’ natural social support varied. They described opportunities to provide a range of types of social support.	Trained Live in the minority community “Peers” – makes information presented more accessible approach Shared community, networks, experience, cultural perspectives	Social support (4 domains with examples) Disease management Bridge cultural gaps between service and clients Improve access to care	Social support
18.	Felix (416)	The Care Span: Medicaid savings resulted when	US	People at risk of entering nursing	Before and after study	Savings per patient (23.8% per year) and for the state (Arkansas) (\$2.961 million)	Knowledge of the community Leadership skills	Identifying at risk communities Outreach – finding clients	None

		community health workers matched those with needs to home and community care.		homes		following the intervention	Good relationship with residents (often existing relationship with clients) Trained Often shared socioeconomic status, race, ethnicity (understood social norms, expectations, and able to work within social context) Knowledge of services, able to connect clients	Assistance with insurance enrolment Information/signposting/ connection to services	
19.	Fernandes (417)	Healthy Heart, Healthy Family: a NHLBI/HRSA collaborative employing community health workers to improve heart health.	US	Low income Filipinos with CVD risk	Before and after study	Significant improvement in knowledge, behaviour, self-efficacy in self-management at 12 months. No meaningful improvement in clinical outcomes.	From the community Bilingual Trained Paid Varied educational background Cultural knowledge – able to reinforce messages, link with other activities, “foster cohesiveness” with clients.	Outreach Case management Assisting health professionals Education System navigation Interpretation Social support Advocacy Referral Group setting Behaviour change support Resources (e.g. pedometers) Instruction (physical activity) Events	Transtheoretical Model
20.	Findley(418)	Building a consensus on community health workers' scope of practice: lessons from New York	US	CHW populations	Community based participatory research	There needs to be consensus on the ‘who and what’ of CHWs. 5 areas of practice identified: outreach and community organising, case management and coordination, home visits, health education and coaching, system navigation. 27 skills identified within this (not all listed here)	Dedication to the community Live in community – insider knowledge, shared values and experiences, ability to share stories, trust Shared culture or experience Cultural competency Skills	Counselling Teaching Health promotion Behaviour change Advocating for individual community Cultural bridge Access to services Group settings Referral Follow up Social support Community capacity building	None

21.	Funnell(320)	Peer support, education, and mentoring.	International	Diabetes patients	Review (not systematic)	Strategies are often not well-described in the literature Little is know about how different strategies work in different cultural/religious groups Training requirements not well-understood Describes effective peer interventions in the literature	Communication skills "Peers" – "similar"	Education Behaviour change, self-management Goal setting Problem solving Social support Patient centred communication Exploration of feelings Reflective listening Mentoring/coaching Group facilitation Group and 1:1 Telephone support	Goal setting Motivational interviewing Problem solving Social support Peer support
22.	Furze (419)	Randomized controlled trial of a lay-facilitated angina management programme.	UK	Patients diagnosed with angina	RCT	No significant difference in angina between nurse and CHW-facilitated programme at 6 months.	Experience of, or carers of people with heart disease Paid Trained	Reduced cost Behaviour change (goal setting, information) Stress management Phone and face to face Home visits Referral to other services	None
23.	Gerber(420)	Design of a trial to evaluate the impact of clinical pharmacists and community health promoters working with African-Americans and Latinos with diabetes.	US	African Americans and Latinos with diabetes	RCT protocol	Trial design described	Bilingual College educated Communication skills Represent community served Trained	Adherence support Communication with professionals Home visits Telephone contact Behaviour support – lifestyle, treatment, monitoring Monitoring e.g.bp Address language, transport, cultural barriers to care	None
24.	Gilkey (74)	Professionalization and the experience-based expert: strengthening partnerships between health	US	All CHW clients	Commentary	Discusses professionalization in the context of CHWs and introduces concept of "Experience-based expert"	Shared experience, shared community - experience-based experts Trained Not professionals – "lay" Volunteer and paid	Social support Service coordination and referral, linking services and community Advocacy Health education	None

		educators and community health workers.					Local/situated knowledge (acquired through experience) Specialised community knowledge – experiences of disease, of accessing care	Community assessment	
25.	Golnick (421)	Innovative primary care delivery in rural Alaska: a review of patient encounters seen by community health aides	US	Rural Alaskans	Observational study	Data demonstrated the range of acute, chronic, preventive and emergency problems which CHWs addressed.	Trained Residents of the community	Clinical care focus	None
26.	Harris (422)	The potential contribution of Community health workers to improving health outcomes in UK primary care	UK	UK population	Commentary	CHWs have shown promising results. Heterogeneous field complicates systematic review. Challenging to define CHWs and activities. “Sluggish” uptake in high income settings. Focus on behaviour change and counselling in these areas. No robust evidence of effectiveness of cost-effectiveness of Health Trainers in the UK. Describes challenges of implementing Health Trainers. Advocates for a broader, more generic approach, akin to Brazil.	Trained Not professionals Paid and volunteers Close to the community	Empowerment Reduce costs Settings – homes, community centres, rehabilitation programmes, events, shops, libraries. Behaviour change (screening, lifestyle) Healthcare delivery Counselling Directing to services Information (culturally appropriate, tailored) Health literacy Group sessions Clinical care Behaviour change and counselling focus in the UK. Link to health services	None
27.	Hunt (423)	An integrative review of community health advisors in type 2 diabetes.	US	Diabetes patients	Systematic review	Describes theoretical basis, characteristics, training, roles, activities (see right), plus populations, settings served, and effectiveness of community health advisors. Effectiveness mixed but significant improvements in client knowledge, HbA1C, lipids, hypertension and physical activity.	Patients with diabetes (shared experience) Often shared ethnicity Volunteer and paid Often member of community	Support Education Case management Advocacy Programme facilitator/coordinator Link between health professionals and patients Counselling Group leaders Social support	Transtheoretical model Ecological framework Precede-proceed Social support

						Characteristics of CHWs underreported. Theory described in 9/16 but often insufficient detail to understand how it was applied.		Culturally appropriate support Empowerment Telephone support Behaviour change Access to services, insurance	
28.	Ingram(8)	Establishing a professional profile of community health workers: results from a national study of roles, activities and training.	US	CHWs	Cross sectional study	CHWs generally share similar characteristics, training and activities. The field appears to have become standardised. CHWs should be considered as a professional group rather than an intervention.	Predominantly shared ethnicity with clients Trained	Culturally appropriate information, education Outreach Disease prevention Behaviour change Counselling and social support Community capacity building Health service access, navigation, bridging Direct health services, screening Advocacy Individual and group Work with community leaders "Synergistic" – many overlapping roles	None
29.	Jacobson(92)	What do peer support workers do? A job description.	Canada	Psychiatric patients	Qualitative	Peers do direct and indirect work to support clients. Inconsistencies in role descriptions is a barrier to implementation and effectiveness.	Shared experience – service users but also distress, poverty etc – experience links to the impact they have as they can share it, can empathise, connect with clients Trained Paid	Direct work - "Advocacy, connecting to resources, experiential sharing, building community, relationship building, group facilitation, skill building/mentoring/goal setting, and socialization/self-esteem building. " Inside and outside hospital Indirect work – "Group planning and development, administration, team communication, supervision/training,	None

								receiving support, education/awareness building, and information gathering and verification.” Guild relationships with staff Legitimising peer role role modelling,	
30.	Johnson (424)	Community health workers and Medicaid managed care in New Mexico.	US	Medicaid enrolees	Before and after study	Significant reductions in claims and payments through health insurance system for CHW clients after 6 months.	Members of community Paid or volunteer Usually share ethnicity, language, socioeconomic status, life experience,	Education, health literacy Advocacy Social support Access to care and resources, navigation Behaviour change (service use, self management, lifestyle) Bridge between services and community Case finding	None
31.	Jolly (45)	Systematic review of peer support for breastfeeding continuation: metaregression analysis of the effect of setting, intensity, and timing	International	Mothers and infants	Meta analysis	17 papers reviewed, 15 included in metaregression, 9 of which in high income countries. In high income countries peer support reduced the risk of not breastfeeding) and the risk of non-exclusive breastfeeding. The effect was significantly larger in low and middle income countries.UK studies showed no significant effect.Higher intensity and postnatal support both had an increased effect on any breastfeeding, but not exclusive breastfeeding.	Volunteer or paid	Home visits Behaviour support (breastfeeding) Telephone support	None
32.	Kaunonen (425)	A systematic review of peer support interventions for breastfeeding	Europe, N America, Australia, New Zealand	Mothers and infants	Systematic review	30 studies, 17 quantitative, 6 qualitative, 7 mixed methods. Individual approaches most common. Peer support plus professional support was effective in supporting breastfeeding continuation	Not professional “Peers” Can be relatives, friends or partners. Trained Knowledge and skills Shared language	Group or 1:1 Social support Advice Parenting support Home, clinical and community settings Telephone support	None

						(13/17 effectiveness studies).		Resources (e.g. breast pump)	
33.	Keller(426)	Madres para la Salud: design of a theory-based intervention for postpartum Latinas.	US	Postpartum Latinas	RCT protocol	Describes intervention composition and trial design	Member of the community to whom others turn Paid Part of the health care team	Social support (4 domains) informs intervention components, though not yet implemented. Physical activity (walking sessions)	Social support
34.	Larkey (427)	A cancer screening intervention for underserved Latina women by lay educators	US	RCT	Latinas	No significant difference in screening between group and individual CHW approaches. Overall improvement in screening uptake in a previously unscreened population. Small but significant differences in social support measures in group intervention arm. Group intervention far cheaper.	Shared language, culture, ethnicity – understand how barriers can be overcome, deliver support in community language Work on own community Group facilitation skills Trained	Social support Dissemination of information in social network Group and 1:1 Information “feedback, practical support, emotional processing of new behaviours, and building on cultural norms” Cultural modelling Practical support (information, transportation) Signposting to services	Social support (measurement rather than intervention design)
35.	Martinez (182)	Transforming the delivery of care in the post-health reform era: what role will community health workers play?	US	Any CHW clients	Commentary	Discusses the potential for CHWs to play a key role in Affordable Care Act implementation. Underused workforce.	Members of the community, trusted “Mirror social class and racial character” of community – local knowledge, insight to inform care delivery models Share race, ethnicity, culture, language, experience	Healthy behaviour change Outreach Advocacy for individual and community Education and guidance Appropriate health service use, service improvement Access to services, insurance enrollment Patient centred Care coordination, system navigation Improve cultural competence of care Reduce costs	None

								Shifting care out of hospital	
36.	Monaghan (428)	Preventing eye injuries among citrus harvesters: the community health worker model.	US	Citrus workers	Controlled study	Significant Increase in use of protective eyewear in intervention group. Dose response relationship.	Shared experience/status (fellow workers) Chosen as influential among peers Shared gender, ethnicity, language, residence Paid workers	Data collection Outreach First aid Role modelling Distributing equipment Education	None
37.	Nguyen(429)	A qualitative assessment of community-based breast health navigation services for Southeast Asian women in Southern California: recommendations for developing a navigator training curriculum.	US	Southeast Asian women	Qualitative	Identified key knowledge and skills for CHW training programme: information (medical information, how to navigate resources), "logistics" (transport/ interpreting), "affective interpersonal skills" (language, cultural beliefs of patients, communicate with providers, establish trust).	Bilingual – able to navigate/advocate Maintains confidentiality – creates trust, confidence	Outreach Access to services (medical and social) Advocacy Social support – information, logistical (appointments, identifying resources/services, translation), emotional (building confidence, reducing anxiety), appraisal. Education/information Translation/advocacy with professionals Educating families/ community leaders Building self-sufficiency Settings – churches, temples More in paper itself. Bridging barriers	Social support
38.	Paskett(430)	Evaluating the efficacy of lay health advisors for increasing risk-appropriate Pap test screening: a randomized controlled trial among Ohio Appalachian women	US	Rural women	RCT	Intervention arm had non-significant increase in screening rates according to records, significant increase according to self report.	From community "Indigenous" to area Not extensively educated Trained for role	"advice and advocacy, tangible aid, and emotional and logistical support" Behaviour change Home visits, community site visits Telephone support Postcards	PRECEDE-PROCEED model Social learning theory Transtheoretical model
39.	Phillis-Tsimikas(431)	Peer-led diabetes education	US	Mexican American	RCT	Significant improvements in HbA1c and cholesterol in	Natural leaders Diabetics (shared)	Culturally appropriate education about diabetes	Peer educator model

		programs in high-risk Mexican Americans improve glycemic control compared with standard approaches: a Project Dulce promotora randomized trial.		diabetic patients		intervention group over time	experience) Trained Shared language “direct experience with the community and participants’ living situations, support and empathy that often is difficult for professionally trained individuals to provide, and firsthand understanding of the myths, beliefs, and cultural remedies that may interfere with the adoption of health recommendations”	Group setting Monitoring (BP, BM, weight) Telephone support	
40.	Riddell(432)	Cluster randomized controlled trial of a peer support program for people with diabetes: study protocol for the Australasian Peers for Progress	Australia	Type 2 diabetics	RCT protocol	Trial design described	Volunteers Trained Group facilitation skills	“Assistance and consultation in applying a diabetes management plan – behaviour change, role play etc) “Social and emotional support” “Linkages to and assistance in...access to...care” “Ongoing support” 1:1 and group Community venues Telephone support Activities, walks, exercise Data collection Organisation	Peers for progress model
41.	Rosenthal(6)	Community health workers then and now: an overview of national studies aimed at defining the field	US	CHWs and their clients	Review (not systematic)	Reviews 3 CHW studies. Explores characteristics, roles, training, CHW careers, workforce planning, and future directions. Highlights the need to implement and support full range of CHW roles to maximise potential.	Volunteer and paid Knowledge Skills (interpersonal, coordination, capacity building, advocacy, teaching, organisation)	Access to health care Health advocacy Health care Access to nonmedical services Health education/information (culturally appropriate) Community empowerment/advocacy Behaviour, attitudes	None

								(treatment adherence, lifestyle) Reduce costs of care Disease management (self-care) Homes, community centres, hospitals, clinics Social support Outreach Counselling Transportation Educating health/social system Information gathering Interpretation/translation Group facilitation Group and 1:1 Assessing individual and community needs Bridging/cultural mediation Service change Training other CHWs Case finding Making referrals Taking people to services follow-up Leading support groups V. Advocating for individual and community needs Bridging Direct services/care Screening Access to resources (e.g. housing) Individual and community capacity-building Needs assessment	
42.	Roth (433)	Can lay health workers promote better medical self-management by persons living with	US	RCT	High risk HIV patients	Intervention group significantly more likely to adhere to treatment and to have undetectable viral load at 12 months.	Trained, not to professional level Committed to project Previous experience of working with vulnerable	Behaviour change and motivation (self care, adherence) Build strong trusting relationship, relationship-	None

		HIV? Evaluation of the positive choices program					Paid	centred care (encourage behaviour change) 1:1 Phone and face to face Education/information support Emotional support Tailor intervention to client	
43.	Rothschild (434)	The Mexican-American Trial of Community Health workers (MATCH): design and baseline characteristics of a randomized controlled trial testing a culturally tailored community diabetes self-management intervention.	US	Mexican Americans with diabetes	RCT design and baseline characteristic report	Trial design and participant characteristics described.	Lay people Live in community - neighbourhood Trained Shared language, experience, culture, ethnicity These CHWs did not have diabetes Culturally competent "Peers"	Outreach Education Culturally appropriate self-management training Behaviour change – self-monitoring, treatment adherence, lifestyle behaviours Coaching in "brainstorming and problem-solving; using a journal or written record; modifying the home environment to support behavior change; seeking social support from family or friends; and stress management" 1:1 Home visits – to promote changes in context	Social cognitive theory
44.	Ruggiero (435)	Translation of the diabetes prevention program's lifestyle intervention: role of community health workers.	US	Diabetes patients	Commentary	Discusses the role of CHWs in diabetes care and the Diabetes Prevention Program Lifestyle Intervention. Reviews findings of other studies reviewed for this work so not all repeated to the right.	Community members Lay Paid or unpaid Shared ethnicity, language, socioeconomic status, experience Specialised training to become diabetes CHWs	"Interpretation and translation...culturally appropriate health education and information, assist people in receiving care,... counselling and guidance on health behaviours, advocate for individual and community health needs...some direct services" Bridging provider/patient Improving services (culturally appropriate)	Transtheoretical Model

								Education Lifestyle change Self-management Social support Data entry Outreach Group support/facilitation Medication adherence Settings – community, clinic, homes, hospital Working as part of multidisciplinary team	
45.	Ruiz(436)	Lessons learned from a community-academic initiative: the development of a core competency-based training for community-academic initiative community health workers.	US	CHWs training to conduct research	Mixed methods evaluation	CHW competency-based training was observed to improve CHW confidence and intentions to deliver programme, and provided additional social justice context for their work. No significance testing.	Trusted members of communities, insiders, access accurate info about communities Skills (full list in paper, includes technical and organisational)	Bridge culture/social gaps between clients and providers Education/info (culturally appropriate) Access to services Counselling Advocacy Social support Health care/screening Capacity building (individual and community) Service coordination	None
46.	Singh (437)	Bringing the concepts of peer coaches and local health workers from Africa to Harlem.	US	Disadvantaged chronic disease patients	Commentary	Describes the work of a clinical academic in the CHW field	Paid "Professionalised" Live where they work	Chronic disease care Community development Behaviour support and self-care	None
47.	Spencer(438)	Effectiveness of a community health worker intervention among African American and Latino adults with type 2 diabetes: a	US	African American and Latino adults with diabetes	RCT	Significant improvement in intervention group HbA1c, not in control. Self reported diabetes understanding also significantly greater improvement in intervention group.	From community Ethnically matched Trained Same language	Behaviour change (lifestyle and health management, communication with providers) Education classes Home visits Accompany to clinic Group and 1:1	Empowerment theory Socioecological model Self determination theory Autonomy

		randomized controlled trial.						Community venues	motivation theory
48.	Wells(43)	Do community health worker interventions improve rates of screening mammography in the United States? A systematic review.	US	Women >40 not history of breast cancer	Systematic review	24 studies included, 18 in meta-analysis. Statistically significant increase in risk ratio screening in intervention group in meta-analysis of all study designs. Effect remained in RCT-only analysis (10 studies) but not with pooled data from quasi-experimental studies.	Lay people Trained 4 papers reported racial or ethnic matching – effect was stronger in these studies	Liaise between patients and services Community (e.g. church, neighbourhood) and clinical settings Education Referral Appointment scheduling Vouchers for free care Social and emotional support (less common) Paperwork Communication with providers Child care Follow up/reminders	None
49.	Yuan (439)	Lay health influencers: how they tailor brief tobacco cessation interventions	US	Smokers	Qualitative	CHWs adjusted their work according to client characteristics, relationship with client, setting, and situational context (location and timing).	Trained Use own social networks and reach out beyond in their communities Knowledge/skill/communication skills - tailoring approaches	Advice, information, referral to care Behaviour change, brief intervention “Everyday settings”	Lay Health Advisor Model

Appendix 4: Biography

Here I outline my route to doctoral study. It is worth providing this background as I have not taken a traditional research career path, and my experiences are relevant to the work presented in this thesis.

My career began with a medical degree, from which I graduated in 2003. My interest in population-level health began on an intercalated BSc in integrated health sciences, where I studied epidemiology and research methods, and health promotion. Subsequently I completed my studies, and undertook medical training posts in general medicine, surgery, emergency medicine and genitourinary and HIV medicine. My experiences in clinical practice led to a sense of frustration at doctors' limited capacity to address the reasons for their patients' ill health: I wanted to find a way to practise that focused on stemming the flow of disease that I was treating. At this point I discovered the medical specialty of Public Health, which does exactly that.

Most public health doctors do not work face-to-face with patients, but instead work on making population-level improvements in the three core areas: health improvement (prevention), service improvement (NHS and other services), and health protection (communicable diseases and environmental health). Pursuing my interest in public health, I spent a year working in the East Midlands as a Senior House Officer, and then entered onto the West Midland Specialist Registrar training programme, completing a Master's in public

health, and membership examinations for the UK Faculty of Public Health. I also continued to have some direct clinical contact in general practice, respiratory medicine and GUM.

Through my academic supervisor, Jayne Parry (now my PhD supervisor), I was becoming increasingly interested in public health research. This was fuelled by my experience of 'in service' public health work, where there was limited scope to develop and evaluate projects rigorously. As a result, in 2008 I joined Jayne and Jonathan Mathers (also my PhD supervisor) on a placement to work on the NIHR-funded Scoping Study of the Health Trainers Initiative. This work enabled me to build knowledge and skills in qualitative methodology, and the evaluation of complex health improvement interventions. It also challenged my traditional medical-model positivist philosophical leanings (explained further in the thesis). In addition, the Health Trainers study provided an in-depth exploration of a new non-professional health improvement role, recently developed and implemented in England, and I became increasingly interested in this type of worker. I was struck by the atheoretical nature of the Health Trainer role development, and my reading of the wider literature suggested this was a common issue in 'lay', 'peer' and 'community' health worker services. This led me to propose a doctoral study exploring exactly how this group of workers might improve health, with the aim of building theory. I applied for an NHS-funded doctoral fellowship, and this has been the main focus of my work since 2010. I continued my specialist public health training while studying, and entered the Specialist Register in 2012.

During the course of my studies, I have had two children (one in 2010, one in 2013), with a total of fourteen months' maternity leave, and since June 2011 my studies have been

undertaken on a part-time basis, explaining the longer than usual duration of the doctoral work.

Appendix 5: Informed consent

Informed consent has three main requirements; the research subject must have the **capacity** to give consent, sufficient **information** must be provided to support a decision, and the subject must provide consent **free of coercion** or pressure.(440) I assumed generally that individuals put forward for interview had the **capacity** to consent (most were in positions of responsibility as employees or volunteers, and in the case of clients the capacity was externally verified by their CHW). This is in line with the General Medical Council's guidance on consent, which states that adults should be presumed to have capacity.(441) I was also able to back this up by checking subjects' understanding during the face-to-face consent process.

Participants require **information** about the reason for the research, background about the research team (or in my case the student and supervisors), funding, governance, confidentiality, what participation would entail (duration, content, place and time), and what to do if there is a problem. It is particularly important to ensure that subjects understand that participation is voluntary, and that the decision regarding whether or not to participate has no impact upon employment or care. Information was provided to potential participants in several ways. First, where possible I attended a team meeting of the workers being approached, where I presented a summary of my proposed research, provided a written information sheet, and invited workers to ask questions (but not to 'sign up'). Second, potential participants were invited to participate by a third party (their manager or their CHW) and provided with the same information sheet. Finally, the

information sheet was used as a tool to check understanding at the point of formally taking consent.

For this particular piece of research, I felt it was important to reiterate to participants that the project was not seeking to prove effectiveness (or otherwise) of the interventions. Participants during the Scoping Study of the Health Trainers Initiative had expressed expectations of research outputs that would address effectiveness, and the same challenges occurred during this doctoral work. These expectations seemed to be closely linked with services' need to provide evidence to secure their future in the next commissioning round. In order to mitigate this, I had ensured that the information sheet, team meeting discussions and consent-taking process highlighted the exploratory nature of the research and the kind of data that would be produced. However, while the participants seemed to broadly understand this, I was left with the sense that they were still expecting outputs that would provide compelling evidence to support contract management and tender processes. I discussed this with my supervisors, and decided that it was appropriate to continue. However, I repeatedly highlighted the likely outputs and the wider academic purpose of building understanding of CHW interventions. I also offered to provide reports to local providers summarising the findings for them to use as they wished.

Preventing coercion was another area for reflection. As some of the services were vulnerable and seeking evidence to support their activities, I was mindful that there may have been a 'three line whip' to encourage workers to participate, and similarly some pressure on the client participants to agree to interview. In order to avoid participants feeling pressured into participation (and mitigate any pressure coming from employers), I

highlighted the voluntary nature of participation and lack of impact on their employment at each stage (meeting, invitation letter, interview booking, consent-taking), and checked and re-checked independent consent. I also reminded them that if they changed their mind at any time they were free to withdraw consent. In one particular case I decided during the consent taking process that it was not freely given (although the individual probably would have participated I was not comfortable). I instead proposed a 'sham' interview where we occupied the meeting room for the expected time, but discussing unrelated matters (no data was collected or used). This was to prevent colleagues becoming aware of the worker's non-participation. I discussed this with a supervisor immediately after the 'interview', who supported my approach. I also disclosed the event to the responsible Research Ethics Committee.

Anonymity and confidentiality

I identified several areas where anonymity or confidentiality were at risk; the fact of participation, raw data, and reported data. First, I aimed to prevent **disclosure of the fact of participation** (or not) in the participating services, for example a manager knowing that his or her employee had participated. I attempted this by advising potential participants during initial contact at their team meetings that if they chose to participate it could be at a time and place of their choosing and did not have to be at their place of work. However, the workers, clients and other stakeholders expressed a willingness to be interviewed and self-disclosed in the presence of others that they wished to take part. Being interviewed at the place of work was described as desirable as it was convenient and would be during paid working time. In one service, the employer offered to organise scheduling of interviews at

the office, and the workers agreed to this. I had slight concerns that I would not be meeting participants off-site at a confidential time and place, and I was also concerned that it might represent coercion, but as participants had expressed a preference for this set up I had to find a way to accommodate it. Following discussion with my supervisors, I agreed to scheduled meetings but made doubly sure I explored the fact that colleagues were aware of each other's participation before the interview (see previous discussion regarding 'sham' interview where consent not freely given). Another common instance where I had to be on my guard was where participants had disclosed to one another that they had met with me, and would engage me in general discussion about it, for example "X said she spoke to last week and you talked about Y." I responded to the effect that "I'm really happy for you to discuss with each other if you wish, but I'm afraid I can't tell you who I have spoken to or what about if that's ok."

Second, I had to protect the **raw data** from confidentiality breach. The data was in the form of audio files and text files and hard copies of transcribed data. The audio recordings were transferred to electronically protected network files following interviews. These files were only accessible to the researcher. The audio files were also securely uploaded to a transcription company that the team had worked with before, and with whom the University held a confidentiality agreement. The resulting transcripts were stored on a password protected secure server. Transcribed interviews were anonymised and any hard copy printouts were stored in a locked filing cabinet in a locked office. Nobody outside of the research team had access to the data.

Finally, I had to prevent the possibility of **reported data** being attributed to a particular individual. In this thesis, and in other reports on the research, great care has been taken to avoid both direct attribution (where reported data is linked to an identifiable name or role) and indirect attribution (where other characteristics that may identify a person are disclosed in a report).

Protecting participants from harm

Protecting participants from harm is a key consideration in any study, but in this work I felt it was of high importance due to the fact that I would be exploring the personal characteristics and biographies of workers, and client stories, which might, at times, include distressing issues (for example domestic violence). I had to be mindful of the impact this might have on interviewees, exploring issues but sense-checking (using verbal and non-verbal signs) that they were comfortable to continue, and offering to terminate the interview if necessary. The risk of distress was raised within the participant information sheet, consent discussion, and as necessary throughout the interviews. Participants were also signposted to sources of help should they need it, and it was made clear that my role did not allow me to assist with any aspect of their health or health care.

Protecting the researcher from harm

Participants were invited to suggest the location for interview. For many this was in their own homes. Other interviews were conducted in meeting rooms at the place of work, and in three instances in public places (a bar, supermarket café, and a coffee shop). Regardless of location of interview, a lone worker policy was implemented, whereby another member

of the research or administrative team knew the location of the interview, likely duration, and a 'check in' time was agreed for me to report back when the meeting had finished. In the case of client interviews I discussed risk assessment with the client's worker before the interview. In all cases I checked the journey, parking and local area for any personal safety concerns.

Appendix 6: Types of worker identified in local 2010 scoping work

Smoking cessation worker

Smoking cessation workers have many different incarnations, and all PCTs have a service of some description, in order to deliver central 'quitting targets' annually. In some areas, such as Shropshire PCT, the workers are health professionals who have received additional training. In other areas, members of the public are trained up to perform the role. The scoping work differentiated between lay and professional smoking cessation workers, and only those delivering lay services are recorded in the table on page 5. All of the workers identified through this scoping work were paid for their work.

Health Trainers, Health Champions and Health Exchange Supporters

Health Trainers is a national programme that was launched in 2006. When implemented as the original Department of Health policy intended, Health Trainers are local people trained to deliver 1:1 behaviour change and support to individuals in disadvantaged communities. The key areas of focus are diet, exercise, smoking and alcohol, although in many services Health Trainers do work with clients around other health and wellbeing issues. Nationally, some PCTs have been found to recruit individuals with higher level qualifications, or from outside the local community. While every PCT should now have a Health Trainer service, the following section illustrates that not all areas in the West Midlands have implemented the policy. Health Trainers can be paid or voluntary. In some cases, other roles have been created as a 'step up' to becoming a Health Trainer, for example Health Champions in most areas and Health Exchange Supporters in Heart of Birmingham. These roles tend to be voluntary.

Breastfeeding worker

Breastfeeding peer support is widely recognised as key to assisting women to initiate and continue to breastfeed. Breastfeeding support workers are women who have personal experience of breastfeeding, and provide advice and encouragement to mothers. They are often, but not always, volunteers. In the West Midlands, the majority of services are voluntary, but some areas offer either a hybrid service made up of paid and voluntary staff, or a wholly paid employee service.

Expert Patient Programme

The Expert Patient Programme (EPP) is a national NHS programme that was first piloted in 2002. Individuals with long term health problems attend courses where they learn about their illness, and about how to take control of their health. The trainers on Expert Patient courses are either people with a long term condition, or individuals who have direct experience of living with someone with chronic health problems. All PCTs in the West Midlands have an EPP, although the scale of the programmes varies.

Pregnancy Outreach Workers

Pregnancy Outreach Workers (POWs) are an initiative in the three Birmingham PCTs. The workers are targeted at vulnerable pregnant women with high social risk. The workers are recruited from their target communities, and often have personal experience of difficult social circumstances during pregnancy and motherhood, for example domestic violence, substance abuse, and financial difficulties. The workers are paid.

Chronic disease educators

Chronic disease educators are found at Heart of Birmingham (HoB) and Birmingham East and North (BEN) PCTs. The HoB educators focus on chronic kidney disease (CKD), coronary heart disease (CHD) and diabetes patients, conducting group work with the aim of improved symptom management, improved quality of life through knowledge of condition and health behaviours, knowledge to slow disease progression, improving medical management of the condition, and helping patients and their carers to manage the emotional impact of their condition. It is distinct from the EPP, which is an accredited national scheme that covers all chronic conditions. At BEN the workers are classed as 'peer educators', and they focus on CKD in the African Caribbean community, through a Kidney Research UK programme called 'A Better Life through Education' or ABLE.

Walk leaders

Walk leaders are found in almost every PCT area, but they are often managed and funded by local authorities and Natural England. There are, however, a few PCT-supported schemes. Walk leaders are usually voluntary, and they are responsible for taking local people on guided walks to suit a wide range of abilities. These walks are seen as having benefits for physical and mental health.

Food workers

There are a handful of lay food workers across the West Midlands, although it is more common to find workers with formal qualifications in food and nutrition conducting this kind of work. Roles include 'Cook and Eat' work (also known as Make and Taste and Cook and Taste workers), where workers cook with community members to build their knowledge, skills and confidence in preparing healthy food. This can also involve shopping for ingredients, interpreting food labelling etc. Food workers also attend community events to give advice and support, and in some cases provide opportunistic advice out and about in the community. An interesting case is that of a PCT-trained worker becoming an independent community food and nutrition consultant.

Healthy Communities Collaborative

This is a Department of Health initiative which is currently being piloted across several sites in England. Stoke PCT and Sandwell PCT are participating, and Coventry is potentially going to be a 'phase 3' site. This initiative recruits local lay volunteers to deliver opportunistic advice (at community events, in venues such as supermarkets and bingo halls, and on the street). The national programme has two objectives: cancer prevention/diagnosis, and CVD prevention/diagnosis, and local programmes focus on one of these areas. Workers inform people about risks, signs and symptoms, and them to attend screening, where applicable.

Physical activity

A number of lay-delivered physical activity interventions exist across the West Midlands. Interventions may involve delivering physical activity, or 'hand holding' individuals in selecting and undertaking some physical activity which is well-suited to them. Funding may be attached to pay for a fixed number of sessions for the client.

Green gym

Green gyms are initiatives where community members are encouraged to participate in outdoor gardening and landscaping work that provides physical and mental health benefits. At present no PCT-funded lay-delivered schemes are operating in the West Midlands, although some green gyms do exist.

Support buddies

Support buddies are only found at Heart of Birmingham PCT. Clients are usually referred to the workers by their GP, because they have presented at the surgery with social problems related to the wider determinants of health that the NHS is traditionally unable to address. The workers assist clients in contacting agencies, filling in forms and attending appointments. The workers are not specialist advisers for problems such as debt, benefits and housing, but they offer support to clients in navigating the system, particularly for those for whom English is not a first language.

Appendix 7: Distribution of CHWs in the West Midlands Primary Care Trusts in 2010 scoping study

PCT	Type of lay worker												
	Expert Patient Programme	Health Trainers	Smoking cessation	Breastfeeding support	Health champions / supporters	Pregnancy outreach	Chronic disease education	Walk leader	Cooking/ food worker	Healthy Communities Collaborative	Physical activity	Support buddies	Green gym
Birmingham E&N	✓	✓	✓	✓	✓	✓	✓	✗ LA	✗	✗	✗	✗	✗
Coventry	✓	✓	✓	✓	✗	✗	✗	✗ LA	✗	Planned	✓	✗	✗ LA
Dudley	✓	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	✗	✗ not PCT
Heart of Birmingham	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✗ not PCT
Herefordshire	✓	✓	✗	✓	✗	✗	✗	✗ LA GPs refer	✗	✗	✗	✗	✗ LA
North Staffordshire	✓	✗	✗	✓	✗	✗	✗	✓	✓	✗	✓	✗	✗ not PCT
Sandwell	✓	✓	✗	✓	✗	✗	✗	✓	✗	✓	✗	✗	✗ not PCT
Shropshire	✓	✗	✗	✓	✗	✗	✗	✗ LA PCT support	✗	✗	✗	✗	✗
Solihull	✓	✓	✓	✓	✗	✗	✗	✗ LA	✓	✗	✗	✗	✗
South Birmingham	✓	✓	✓	✓	✗	✓	✗	✗ LA	✗	✗	✗	✗	✗
South Staffordshire	✓	✓	✗	✓	✗	✗	✗	✗ LA	✗	✗	✗	✗	✗
Stoke on Trent	✓	✓	✗	✓	✓	✗	✗	✓	✗ but have lay consultant	✓	✗	✗	✗
Telford and Wrekin	✓	✓	✗	✓		✗	✗	✓	✗	✗	✗	✗	✗ not PCT
Walsall	✓	✓	✓	✓	✗	✗	✗	✓	✗	✗	✗	✗	✗ not PCT
Warwickshire	✓	✓	Semi	Developing	✗	✗	✗	✗ LA	✗	✗	✓	✗	✗
Wolverhampton	✓	✓	✓	✓	✗	✗	✗	✓	✗	✗	✗	✗	✗
Worcestershire	✓	✓	✗	✓	✗	✗	✗	✓ in partnership	✗	✗	✗	✗	✗

Key: ✓ = present ✗ = absent LA = Local Authority Not PCT = exists but with no PCT or LA involvement

Where workers are in place but are not 'lay', e.g. smoking cessation workers from professional backgrounds, the table above does not register a service

Appendix 8: Interview schedule

(a) Introductions, information and consent

- (1) Interviewer introduces herself and gives information about her role in the research.
- (2) Interviewer re-iterates information relating to the research project and interview as per information sheet, including use of interview material and confidentiality issues, and then answers any questions pertaining to this.
- (3) Interviewer takes participant through consent procedure.

(b) Interview prompts

(b1) interview prompts for staff and stakeholders other than clients and lay workers

- (1) Could you say a bit about your role in the NAME OF SERVICE?
- (2) What has your involvement been in the creation of the NAME OF SERVICE?
- (3) Could you describe broadly the idea behind NAME OF SERVICE?
- (4) How do NAME OF WORKERS bring about positive change in the health of clients?
- (5) What is a NAME OF WORKERS? How are they similar/different to other NHS workers? Who becomes a NAME OF WORKERS?
- (6) How do NAME OF WORKERS and the NAME OF SERVICE relate to existing local services?

(b2) Interview prompts for lay workers

- (1) Can you tell me a bit more about the your role?
- (2) How did you become a NAME OF WORKERS? What made you decide to become a NAME OF WORKERS?
- (3) How do NAME OF WORKERS bring about positive change in the health related behaviours of client groups?
- (4) How would you describe your relationship with clients? How do they see you?
- (5) Has becoming a NAME OF WORKERS changed you, or your relationship with your family/community in any way?
- (6) How do NAME OF WORKERS and the NAME OF SERVICE relate to existing local services?

(b3) Interview prompts for clients of NAME OF SERVICE

- (1) Could you tell me about your experience of the NAME OF SERVICE?
- (2) How are NAME OF WORKERS different/similar to other NHS workers you have encountered?
- (3) How has working with your NAME OF WORKERS impacted on you, if at all?

(c) end of interview

- (1) Interviewer indicates that there are no further interview prompts, that the interview is finished, and thanks the interviewee for their participation.
- (2) Interviewer how the interviewee will receive feedback from the interview and remainder of the review work at NAME OF SERVICE.
- (3) Interviewer answers any further questions and ensures the interviewee has contact details for any questions or further information.

Appendix 9: Coding index

Theme	Initial category	Refined category
Accounts of what it is about workers that enables them to improve health (who workers are, person characteristics)	'Community' language skills	Knowledge/skills
	Specialist skills	
	Communication skills	
	Knowledge of target population	
	Knowledge of target behaviour or issue	
	Matching of clients and workers by characteristics does/does not occur	Similarity
	Demographic similarity Gender Age Socioeconomic Ethnic Religious Locality of residence (past or present) Recent/not recent Previous service client Non-professional status	
	Recent shared experience	Shared experience
	Life experience	
	Service experience (previous client)	
	Non-professional status	Non-professional status
	Volunteer/paid	Volunteer/paid
	Personal qualities Values Disposition Empathy Compassion Persistence Non-judgmental	Personal qualities
Trusted by client/'community' Credible Realistic Safe	Credibility/trust	
Accounts of the ways in which CHWs are able improve health (what workers do, role characteristics)	Time with client	Time
	Geographical location	Setting
	Venue	
	Group/1:1	
	Date/time	
	Continuity	Continuity
	Unique tasks	Core tasks (later determined to constitute social support)
	Signposting	Informational support
	Providing health/wellbeing advice	
	Sharing stories	
	Resources	Instrumental support
	Services Translation Referral	

	Signposting Advocacy		
	Evaluating circumstances	Appraisal support	
	Evaluating self		
	Advocating for a behaviour/attitude		
	Offering alternative to/navigating cultural norms		
	Advocacy for behaviour/attitude		
	Negotiating contradictory advice		
	Decision making and action planning		
	Emotional support		Emotional support
	Discrete remit	Limited responsibility	
	Empowerment of clients	Enacted philosophy	
	Client-focused support		
Accounts of client outcomes	Knowledge	Change in client	
	Skills		
	Attitudes Attitude to self Attitude to behaviour Attitude to other services		
	Behaviour Health behaviour Engagement with worker		
	Empowerment		
	Psychological wellbeing		
	Physical health/safety		
	Health/social care		
	Material circumstances		
	Social circumstances		
	Children		Change in client family
	Other family		
	Group attitudes	Group change	
	Group behaviour		

Appendix 10: Example of matrix linked to section of findings (see explanatory note on page 435)

	Continuity	NE ED	PROVISION				ENGAG'T		
		Apprai sal	Emotio nal	Inform ational	Instru mental	Capabi lity	Motiva tion	Opporti unity	
M&T 3	P28 Likes continuity helps her to work out knowledge/ability levels of participants. Also talks about "forging a bond" and "all new together" in the first week. She missed sessions due to illness and noticed a difference. <i>I was poorly actually for two weeks and I missed the first two weeks of this last four week session and I came in half way through and you do notice a difference. That first week, you find a bond, you know, we're all new together, we're all sussing each other out and I did notice a difference. That first session, you work out who's got more skills than the other person and I've missed that actually. It's good to do the four sessions together.</i>	x					x		
M&T 4	P26 Continuity is important but in reality they find it hard to deliver - she thinks due to the sessional workers that they use. This affects ability to build rapport and client "commitment" to coming back. <i>really ideally we need people that are committed, that would go and do weeks one to four, that the two people would be the same people, they'll build up a rapport with the people and they haven't got to face a different person every week, because people in the community like to see one person and they don't want to see a new person the next week and the next week, they just want to see the same person.</i> I: <i>What effect does that have if it changes from week to week?</i> IV: <i>Well you can't build up too much of a relationship, if you're only going to be there for one of the weeks, I don't think that people would be quite as committed to it, that's just what I would think.</i>			?			x		
SW 1	P4 her own consultant when she was a member phoned her up when she hadn't come, she felt like she really cared about her, feeling like she noticed kept her coming back, she had thought that nobody would notice if she didn't but the consultant did! <i>remember she called me the one week because for some reason I hadn't got to group, which was unusual, so she called me up on a Sunday morning and she was like is everything okay, because you haven't been to group and I was like gosh, you've noticed I wasn't there. Yeah, well, erm I have had a bit of a dodgy week and I am struggling a bit. And she just had a bit of a chat with me, and that was it then, I was like oh, I've got to go back next week, just that sense that yeah, I'm not just - she'd got a very big group, she'd got a double session with about 80 people coming through. So the temptation is to think oh, they won't notice if I'm not there, but it was very much the opposite, she did notice and she did care. - this wouldn't be possible if there was not continuity?</i> P4 she remembers nearly all people's names, how they're getting on, greets them by name each week feels it's important to make them "feel part of something" and keep coming <i>So the fact that even though I've got 160 people on my books, there's probably only a couple of them that I might forget their name when they walk in, but nine out of ten times I know the name, I know how they're doing, and I think that's really important that when they walk through the door, I'm like hi Joan, how's it going this week? And they're like yeah, I'm part of something. That's really important.</i>	x		x			x		
SW 3	P31 see them every week so get to know them really well	x					?		
POW 2	P19 build trust by meeting their needs, doing what they said they would do - clients will call her, trust her as a result <i>One lady she got her money, carpeted up the whole house...So when you give them advice they're happy to take it from you because you've got that trusting thing, everything you've done for me so far has worked out so I can trust you, anything you said you were going to do, you've done. You've changed my situation for me when you first come to how it is now so I can trust you.</i> P24 talks about working with client over time and evidencing ability to meet needs over time (<i>continuity implicit</i>) and how this means client sees her as someone who can meet needs, compares with someone who can't meet needs and says <i>"Do you need that person, no you don't."</i>	x			x		x		

	P27 talks about working together over time to change home environment. Implicit that continuity needed?								
POW 4	P17 see the same POW all the time but MW constantly changes despite named MW making them 'unapproachable', clients find it hard to talk to them P11 could build relationship with client by going back regularly, but in this case it didn't help her achieve her aim of empowering the client - she still wasn't interested in the advice/support to access education and change her circumstances, and her family's influence was too strong - continuity and relationship don't always result in desired outcomes, some clients still won't engage	x	x-ve		x				x
POW 7	P22 being the one link across all the services - unique . I don't know what would have happened to her if there was, not me, but if there wasn't a support worker there, and because there was so many people involved with her, it ended up that, it happened to be me, but whichever POW it would have been, ended up coordinating the support...and being the one link I suppose to her with everybody else. P31 Talks about being reliable and the one thing that happens regularly in a chaotic client's life and how this client turned up to all her appointments, the POW was someone she could trust. I guess we're reliable aren't we and perhaps in some people's lives, not everybody, I'm talking about the extreme cases now because it's just easier to give an example I suppose with an extreme case...my Cat A client that I was telling you about, with lots and lots of things going on in her life, her life will always be chaotic, but she knew I was going every week, I was the only thing that happened regularly in her life, that appointment, nothing else was settled, the family support that initially I thought she had...even that became very unsettled, that wasn't what I thought it was.....yeah that wasn't solid, that was a relationship that was quite volatile, which I didn't see at first, but she knew that I was going every week. We did start off saying, with her, with somebody like that, I would always set them a time, same time every week, same day, because also they forget, so if I changed the appointments every week, I've got no chance of getting her in you know and it was great, and we had a great, built up a great relationship and if she needed to change, she'd let me know. She never let me down, she never DNA'd on me, which is incredible in that situation, because I'm probably thinking, you know, the last thing you always want is another person around your house, particularly if Social Services have turned up and everything, but those people, you don't know they're coming you see, or...and a Midwife you don't see every week, so it was just somebody, so at least, even if she had nothing that week, she'd know I was going. There usually was something...so yeah, reliable. Not a friend but someone who is going to be there if you need them I suppose...someone they can trust. P32 saying you will do something and doing it builds trust - need continuity as needed to evidence keeping promises?					x			
PS 2	P2 The conflicting advice from different MWs was a problem, confusing, continuity means that advice consistent, I was thinking I'm sure that's not the way I've been...I've read and now I've been told and that's what I found the biggest thing, different people different sort of professionals actually saying different things, like I had three midwives come and visit at home and they all said different things, but I found that I just now talk to X 'cos she's the constant mum. Implicit that her worker gave consistent advice? She is speaking as a client in this quote.								
PS 4	She likes to be there regularly to maintain relationships p5 P9 seeing some women again enables her to see how they're doing, congratulate them, they know what's going on And obviously if we've seen people who come back regularly, if they have had problems, then generally hopefully they calm down and it gets easier, but if things still aren't right we know a bit about the issues, and can continue that support. If things are going well it's nice because we ask them how they're doing and not congratulate them, that sounds very patronising, saying oh you've done well, but just kind of keeping them going and it's really nice for us, for me, to see them again and see that they're still feeding because that's the point of it really, that you can support them to keep going. Implicit that continuity stops them contradicting advice, give continuous support? P14 makes friends with people who go regularly, sees social element and seeing same people (including her, the Peer), as something that keeps people coming back. Women who come in for the social side get ad hoc advice and support on other issues e.g. childcare. If she was not there every week this would not be possible?								

Explanatory note regarding matrix extract presented:

An extract from the matrix showing some of the participants' references to continuity is presented (this is only an extract of all the continuity data). Relevant data was summarised in the matrix in black text, with page reference. Salient quotes were added to the matrix in blue, and any additional reflections in red. The columns on the right indicate where 'continuity' data was later explored within each case and deemed relevant to the needs assessment, support provision and engagement aspects of the mechanism. "x" denotes findings relevant to concept, e.g. capability, "?" possible relevant findings, and "x-ve" where there is evidence of no relationship between continuity and concept.

Relevant extracts from the thesis

Descriptive account of continuity:

"Many of the participants in the study related the importance of continuity of CHW throughout a client's journey, and contrasted it with other services. This was described as the consistency of the worker who worked with the client, in other words whether the client continued to see the same worker throughout their support relationship." (quote from POW 7)

Explanatory accounts of continuity:

The characteristic, continuity, had relevance across the proposed social support mechanism (needs assessment, support provision, engagement), and the following extracts from the thesis outline the linkages illustrated in the matrix extract:

- Needs assessment and continuity (page 177): "*Continuity* of worker was reported to provide a better opportunity to build a picture of their clients over time, without the need to start afresh with each client interaction. Where workers had to cover others' work, it was reported that this was more challenging, due to the worker having no previous knowledge of, or relationship with the clients."
- Support provision – informational support (page 190): "*Continuity* was described as delivering consistent advice without contradiction, and was compared with other services where a lack of continuity resulted in conflicting advice, which was reported to leave clients confused."
- Support provision – emotional support (page 205): "*Continuity* of worker was perceived to impact on the provision of emotional support indirectly by promoting better needs assessment (see section 8.1.2) and improved engagement (see chapter 9). This is discussed elsewhere and not repeated here."
- Support provision – instrumental support (page 184): "*Continuity* of worker was reported to put CHWs in a position to deliver bridging support, acting as the link between all of the services on behalf of a client." (quote from POW 7)

- Support provision – appraisal support (page 212): “There was a sense that *continuity* and *time* afforded CHWs the opportunity to provide *ad hoc*, ongoing appraisal support that gradually shifted clients’ self-concepts, and attitude to their situations, particularly where cases were complex. Here a POW talks about how she helped to shift her client’s attitude to herself, and to working with other services. This particular client started out with the expectation of having her child removed. At the end of her support relationship she had been allowed to keep custody of her baby, and had turned her life around (quote from POW 4).”
- Engagement – reflective motivation – credibility (page 256): “Arguably, the *continuity* and *time* available to many CHWs affords them a longer period over which to demonstrate credibility, and this perhaps gives these workers an advantage in that they do not have to ‘prove themselves’ immediately, and can build credibility incrementally”
- Engagement – automatic motivation – anxiety and uncertainty (page 269) “The participants in this research described how CHW person and role characteristics reduced uncertainty and anxiety in their clients. They frequently gave accounts of being trusted, or safe. They also gave accounts of a range of engagement activities that resulted in a more favourable emotional response to CHWs by clients, including increased disclosure of concerns or risks, improved repeat attendance and increased likelihood to raise questions.”
- Engagement – automatic motivation – factors which AUM theory of anxiety and uncertainty (extract from table 272): “Better quantity and quality of contact with a specific worker. Lower unpredictability and variability as no new faces.”
- Engagement – automatic motivation – past associative learning (page 276): “CHW role characteristics may have an influence on the level of past associative learning, and subsequent willingness of clients to engage with them. The fact that CHW services frequently offer *continuity* of worker means that there is more scope for building positive past associations.”

Summary of continuity findings (page 287) – “Continuity was reported to deliver better needs assessment as workers could build their understanding of the client over a number of contacts. It was reported to enable workers to provide appropriate instrumental bridging support between clients and other agencies, as they were a continuous presence. It was also seen to improve consistency of informational support. It was perceived as enhancing emotional support indirectly through better needs assessment and client engagement. Continuity also enabled appraisal support to be given in an iterative, longitudinal way, which was described as more effective, particularly in complex client situations. In terms of client engagement, continuity was seen to allow workers to demonstrate their credibility and build trust over time. The increased quantity of contact, and lower unpredictability delivered where continuity was present may have reduced client anxiety, and encouraged ongoing engagement. Continuity also provided an opportunity for clients to build memories of positive experiences with CHWs, which may additionally improve their motivation to engage.”

Appendix 11: Snapshot of coded transcript

NOT PROFESSIONAL SHARING STRATEGIES
LIFE EXPERIENCE SERVICE EXP.?

EMPATHY
LIFE EXPERIENCE SERVICE EXPERIENCE

why I've got that little homemade board, we've got professional boards that we have, but we were encouraged to have a little bit of a homemade board with our before and after photographs and it's where we can really empathise with how difficult it is for them to walk through the door. And sometimes you can see that, that physical, they almost take a deep breath and go oh yeah, you really understand. I'm going to be okay. They're still dead worried about getting on the scales at the end of the night, but at least it gets them just that kind of relief. So definitely, we talk about our own experiences, whether they're positive or not. We talk about the weeks where we ourselves feel like we've deserved better on the scales and it's not showing as well as those cracking weeks when we've done really well. So it's that fine line knowing in terms of that self disclosure, too much can be a bad thing. So it's just knowing when it's appropriate.

LIFE EXPERIENCE SERVICE EXP.
↓
PSYCH. WELLBEING
↓
CLIENT ENGAGEMENT WITH WORKER

I: How do you manage that as a consultant?

IV: I think it's just on an individual basis. I think there's times with individuals that you might disclose a little bit more, because it's a one on one and you feel that's really appropriate. And in a group setting if you're stood at the front there, it might be appropriate to chip in the odd thing about yourself. And I think you do just become very aware of that you don't want the group to become - it's not about you, it's not that we're put on a pedestal to say that we're the expert, we haven't always got the answers, but what we will do is help you to find your own answer and your own solutions. So we're more facilitators really, I guess, in that sense. And I think the terminology is quite important as well because I know where we have ex Weight Watchers members come to us and they'll call you a leader because that's what Weight Watchers call their figureheads, their leaders, and we're very much consultants. And I think just the terminology is very different. And I'm just very aware when I'm in group that it's not always about me. So I think it puts people at rest when you are given a little bit of self disclosure. It's just linked in with that empathy really.

SETTING GROUP / 1:1 SHARING STRATEGIES (different) KNOWLEDGE OF ISSUE

NOT PROFESSIONAL

SHARED S & C EXPERIENCE
→ PSYCHOLOGICAL WELLBEING
ENGAGEMENT WITH WORKER

Sound File: SW01 3

SHARED LIFE EXP.
→ NON JUDGMENTAL

I: And from your perspective way back, knowing that your consultant had been there, how did that make you feel, if you remember? What impact did that have?

IV: I felt she wasn't going to judge. Because I think I felt like everybody else, whether it be general public, friends or family, were judging me. Because they weren't big. And so I thought well you don't know how it feels, you don't know that if we're going out for a meal or I'm sat at MacDonalds, that I'm sat here not enjoying this because I'm wondering if everybody's looking at me thinking you shouldn't be eating that because you're overweight. And that's horrible to carry that around. And so I think I just got it in my mind that she wasn't going to be thinking those things. And although I don't remember her saying the exact words, now I know she would have covered those things with me. She would have said that it's a safe environment, there's no judgement, there's no humiliation, but that was backed up with what I saw in group. What I experienced that first night, I didn't experience any humiliation, so it was backed up with what she'd said really.

NON JUDGMENTAL KNOWLEDGE OF ISSUE COMMUNICATION SKILLS

KNOWLEDGE OF ISSUE COMMUNICATION SKILLS SHARING STRATEGIES SHARED LIFE + SERV. EXPERIENCE

NON JUDGMENTAL KNOWLEDGE OF ISSUE COMMUNICATION SKILLS

PSYCHOLOGICAL WELLBEING → ENGAGEMENT WITH WORKER

I: And that experience, was that different to experiences before?

IV: Yeah. Definitely. Definitely. Because I did, I just wanted to go back and I wanted to be successful. So definitely, it was the group experience by miles that helped me through because if I'd have just been left to my own devices, with the book, I don't think I'd have got very far because every week I'd do something different and mess it up and then think oh, why have I done that. But I'd only learn that while I was at group. I'd say what did I do that for, because that wasn't in the book. Right, okay.

Is it Group or the fact there was any support intervention. i.e. group & 1:1 or support ≠ none.

EVALUATE CIRCUMSTANCES DECISION-MAKING

SPECIALIST SKILLS? COMMUNICATION SKILLS

EVALUATION OF SELF CLIENT KNOWLEDGE ATTITUDE TO SELF & HEALTHY ADVICE

Oh right, but if you'd not been to that group, what is it about the group that helps you to realise what's been going on?

IV: I think just because you're listening to - because you're encouraged to find out what the difference has been, what changes you could make, and you're listening to other

Sound File: SW01 10

EVALUATE SELF CLIENT KNOWLEDGE DECISION MAKING & ACTION PLANNING HEALTHY ADVICE

Appendix 12: Extract from reflective diary

“What lay workers do - do these roles emerge or are they planned? Is there a way of designing interventions in a way that considers which of these activities should be a part of what the worker does (rather than it happening ad hoc)? Clearly some interventions require more of the social support element and others are about perfunctory behaviour change, but comparing what commissioners/GPs might think they’re about with the workers and clients (cf Health Trainers) there is plenty of scope for misunderstanding. How aware are all stakeholders about the variety of tasks, particularly with more complex interventions like POWs? Is this part of the reason that they are not valued? How can this be communicated? How much do commissioning organisations and partner professionals exploit these unique roles to get the most from them? What are we missing?”

Appendix 13: Taxonomy of community health worker characteristics

This taxonomy presents a range of characteristics of CHW recruits, and CHW roles that initial research findings suggest have an impact on CHW service effectiveness. It takes its inspiration from Michie's work, which took a heterogeneous and inadequately described range of behaviour change approaches in public health, and organised them into a clear, consistent taxonomy that could be used to improve the precision and specificity of practitioners' and researchers' work on behaviour change. Similarly, the following taxonomy is intended to be used by academic and service stakeholders when designing, implementing, evaluating and reporting their work in this field.

In the academic context, it is suggested that researchers:

- Measure and report the presence of the taxonomy characteristics
- Test and comment on their role in the health improvement process
- Use the characteristics in dissemination of findings
- Refine and add to the characteristics as new findings emerge
- Involve all stakeholders, including the client population, in CHW services in the research process

In the service context, it is suggested that practitioners:

- Consider the taxonomy characteristics at the service design and commissioning stage
- Be explicit about the rationale for selection of each characteristic at the implementation stage
- Use characteristics as a tool to assess implementation fidelity
- Assess the importance of the characteristics in the specific service context post-implementation (some may not be of relevance)
- Disseminate learning about the relevance of characteristics in individual services
- Make recommendations for the revision and development of the taxonomy of CHW service characteristics
- Involve stakeholders, including service users at each of the stages outlined above

The characteristics in the taxonomy include areas not explored in this thesis, but likely to be of high importance in the wider CHW context. These are CHW embeddedness in the target population; CHW work readiness; community participation/development approaches; local service development/improvement approaches. They have been explored previously in the 'further work' section of the thesis.

TAXONOMY OF COMMUNITY HEALTH WORKER CHARACTERISTICS

PERSON CHARACTERISTICS	‘WHO WORKERS ARE’
Knowledge and skills	
<i>Knowledge</i>	<i>What knowledge do workers need?</i>
Population knowledge	Local people and their lives and experiences Note ‘local’ people may be highly heterogeneous
Specialist knowledge	The local area (geography, facilities etc) Health (e.g. diabetes, pregnancy) Social care (e.g. domestic violence, child protection)
Service knowledge	Behaviour (e.g. breastfeeding, smoking) Local public, private and third sector service provision and access
<i>Skills</i>	<i>What skills do workers need?</i>
Communication	Listening, explaining etc.
Community language	e.g. Urdu
Specific skills	e.g. breastfeeding, cookery
Personal qualities	What sort of people are suitable for this role?
People person+	Enjoys working with people
Empathic and compassionate	Able to see the world from others’ viewpoint Caring
Values and attitudes	Values may influence support, e.g. if pro-breastfeeding worker may withhold information on formula feeding. Need to be clear what is/is not acceptable.
Non-judgmental	Accepts and respects clients regardless of their characteristics or behaviour
Persistent	Pursues tasks in the face of barriers
Goes the extra mile	Willing to make additional effort to help clients, goes further than obligated to by employer (e.g. stays until job is done)
Appropriate disposition	Is friendly, warm, positive etc.
Similarity to the client group	Does the worker need to be similar to clients?
<i>Shared demographic characteristics</i>	
Gender	Self-explanatory
Age	Defining a specific age range may be challenging Note that individuals experience different life events at different ages

Locality of residence	Definitions can be administrative, or neighbourhood-based (i.e. client-defined) Individuals who live in the same area may not identify as belonging to the same community
Socioeconomic status	May be defined along economic, educational, occupational or 'class' lines. Note that these characteristics are not fixed and workers may change e.g. through social mobility
Ethnicity	Note that administrative definitions of ethnicity which may be broad, or may not match individuals' self-defined ethnicity. Ethnic 'communities' may be diverse Note that migrant and locally-born individuals may differ despite ethnic similarity
Religion	Note broad definitions may not account for differences within faiths, e.g. Shia and Sunni Muslims
<i>Shared experience</i>	Note that 'experience' has many dimensions, e.g. some find breastfeeding easy while others face huge challenges Note that it may be important whether or not experience is recent
<i>Shared non-professional status</i>	The term 'lay' is not used as many CHWs have acquired knowledge and skills above lay people Note that clients may still view workers as 'outsiders' from official organisations, even if they are not professionals
<i>Embeddedness in the target population*</i>	CHWs may be working within existing social network such as family or workplace Note that the worker's status in the target population may be relevant here
Volunteer or paid	Should workers be volunteers or paid?
General work readiness*	Which generic skills do workers need, e.g. literacy and organisational skills?
ROLE CHARACTERISTICS	'WHAT WORKERS DO'
Continuity of worker	Do clients need to see the same worker at each contact?
Setting	Where and when is the service best provided?
<i>Geographical location</i> <i>Physical venue</i>	Proximity to the client's location Clients homes, community venues, etc.

Group settings	Venues may provide other services e.g. childcare Group or one-to-one contact may be appropriate
Date and time	Contact outside of ordinary working hours may be of benefit Flexible session times may be of benefit
Core tasks	What is the service intended to do? Informational, instrumental, appraisal and emotional support for the individual client
Social support	Activism to achieve change on behalf of the population, e.g. poverty campaigning
Advocacy for the community/client group*	Activities to reach out to and involve the community in collective action to achieve benefit for the population
Community participation/development approaches*	Interaction with stakeholders in other organisations to improve the quality of services delivered to the target population beyond the CHW provision, e.g. improving midwives' understanding and care of their patients.
Local service development/improvement*	Direct health care services that have traditionally been delivered by health professionals
Health care and screening*	Do workers have a discrete and well-defined remit?
Limited responsibility	How much time does the worker need to spend with clients? Consider frequency (number of contacts), regularity (how often contacts occur), duration (how long contact sessions last), and duration of relationship (how long CHW is involved in client's life)
Time	Is primacy given to the client's own needs rather than epidemiological or service objectives?
Philosophy of empowerment and client-focused care	

* denotes characteristics that have not been explored through the empirical work presented in this thesis

Appendix 14: Timeline for doctoral work

Excluded from open access thesis for student confidentiality

REFERENCES

1. Perry HB, Zulliger R, Rogers MM. Community Health Workers in Low-, Middle-, and High-Income Countries: An Overview of Their History, Recent Evolution, and Current Effectiveness. *Annual Review of Public Health*. 2014;35(1):399-421.
2. WHO. *Classifying health workers: Mapping occupations to the international standard classification*. Geneva: World Health Organization, 2011.
3. International Labour Organisation. *Updating the International Standard Classification of Occupations (ISCO)*. Draft ISCO-08 Group Definitions: Occupations in Health. Switzerland: International Labour Organization, 2008.
4. US Bureau of Labor Statistics. *Standard Occupational Classification: 21-1094 Community Health Workers* Washington: United States Department of Labor; 2010 [updated 11.03.2010; cited Standard Occupational Classification: 21-1094 Community Health Workers 07.04.15]. Available from: <http://www.bls.gov/soc/2010/soc211094.htm>.
5. Department of Health. *Choosing Health: Making healthy choices easier*. London: Department of Health, 2004.
6. Rosenthal EL, Wiggins N, Ingram M, Mayfield-Johnson S, De Zapien JG. Community Health Workers Then and Now: An Overview of National Studies Aimed at Defining the Field. *The Journal of Ambulatory Care Management*. 2011;34(3):247-59.
7. Love MB, Gardner K, Legion V. Community Health Workers: Who they are and What they do. *Health Education & Behavior*. 1997;24(4):510-22.
8. Ingram M, Reinschmidt K, Schachter K, Davidson C, Sabo S, De Zapien J, et al. Establishing a Professional Profile of Community Health Workers: Results from a National Study of Roles, Activities and Training. *Journal of Community Health*. 2012;37(2):529-37.
9. Cherrington A AG, Elder JP, Arredondo EM, FouadM, Scarinci I. Recognizing the diverse roles of community health workers in the elimination of health disparities: from paid staff to volunteers. *Ethn Dis*. 2010;20(2):189-94.
10. Gibbons MC TN. Systematic review of US-based randomized controlled trials using community health workers. *Prog Community Health Partnersh*. 2007;1:371-81.
11. O'Brien MJ, Squires AP, Bixby RA, Larson SC. Role Development of Community Health Workers: An Examination of Selection and Training Processes in the Intervention Literature. *American Journal of Preventive Medicine*. 2009;37(6, Supplement 1):S262-S9.
12. Sidel VW. The Barefoot Doctors of the People's Republic of China. *New England Journal of Medicine*. 1972;286(24):1292-300.
13. Perez LM, Martinez J. Community health workers: social justice and policy advocates for community health and well-being. *Am J Public Health*. 2008;98(1):11-4.
14. Rohde J, Cousens S, Chopra M, Tangcharoensathien V, Black R, Bhutta ZA, et al. 30 years after Alma-Ata: has primary health care worked in countries? *The Lancet*. 2008;372(9642):950-61.
15. Schneider H, Hlophe H, van Rensburg D. Community health workers and the response to HIV/AIDS in South Africa: tensions and prospects. *Health Policy and Planning*. 2008;23(3):179-87.
16. Global Health Workforce Alliance WHO. *Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems*. Switzerland: World Health Organization, 2010.
17. Snedley B, Stith A, Nelson A. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington DC: Institute of Medicine; 2002.

18. Rosenthal EL, Brownstein JN, Rush CH, Hirsch GR, Willaert AM, Scott JR, et al. Community health workers: part of the solution. *Health Aff (Millwood)*. 2010;29(7):1338-42.
19. US Department of Health and Human Services. Key Features of the Affordable Care Act Washington DC: US Department of Health and Human Services; [updated 18.11.2014; cited 2015 07.04.2015]. Available from: <http://www.hhs.gov/healthcare/facts/timeline/>.
20. Marmot M. The Marmot Review final report: Fair society, healthy lives. London: University College London, 2010. Report No.
21. Wanless D. Securing good health for the whole population: final report. London: Department of Health, 2004.
22. Wilkinson R, Pickett K. *The Spirit Level: Why More Equal Societies Almost Always Do Better*. London: Allen Lane; 2009.
23. Visram S, Clarke C, White M. Making and Maintaining Lifestyle Changes with the Support of a Lay Health Advisor: Longitudinal Qualitative Study of Health Trainer Services in Northern England. *PLoS ONE*. 2014;9(5):e94749.
24. Health Trainers England. Health Trainers England [cited 2015 07.04.2015]. Available from: <http://healthtrainersengland.com/>.
25. Department of Health. *Healthy Lives, Healthy People*. London: Department of Health, 2010.
26. NHS Confederation. *Community health champions: creating new relationships with patients and communities*. London: NHS Confederation, 2012.
27. Self Management UK. *Who we are 2013* [cited 2015 07.04.2015]. Available from: <http://selfmanagementuk.org/who-we-are>.
28. Dyson L RM, McFadden A, McCormick F, Herbert G, Thomas J. *Promotion of breastfeeding initiation: evidence into practice briefing*. London: Health Development Agency, 2006.
29. National Institute for Health and Care Excellence. *Maternal and Child Nutrition*. National Institute for Health and Care Excellence, 2008.
30. Carr S, Lhussier M, Forster N, Geddes L, Deane N, Pennington M, et al. An evidence synthesis of qualitative and quantitative research on component intervention techniques, effectiveness, cost-effectiveness, equity and acceptability of different versions of health-related lifestyle advisor role in improving health. *Health Technology Assessment*. 2011;15(9).
31. South J, Raine G, White J. *Community Health Champions: Evidence Review*. Leeds, Yorkshire: Leeds Metropolitan University, 2010.
32. Viswanathan M, Kraschnewski J, Nishikawa B, Morgan LC, Thieda P, Honeycutt A, et al. Outcomes and costs of community health worker interventions: a systematic review. *Medical Care*. 2010;48(9):792-808.
33. Viswanathan M, Kraschnewski J, Nishikawa B, Morgan LC, Thieda P, Honeycutt A, et al. Outcomes of community health worker interventions. *Evid Rep Technol Assess (Full Rep)*. 2009(181):1-144, A1-2, B1-14, passim.
34. Brownstein JN, Chowdhury FM, Norris SL, Horsley T, Jack L, Jr., Zhang X, et al. Effectiveness of community health workers in the care of people with hypertension. *Am J Prev Med*. 2007;32(5):435-47.
35. Morisky DE, Levine DM, Green LW, Shapiro S, Russell RP, Smith CR. Five-year blood pressure control and mortality following health education for hypertensive patients. *Am J Public Health*. 1983;73(2):153-62.
36. Krantz MJ, Coronel SM, Whitley EM, Dale R, Yost J, Estacio RO. Effectiveness of a community health worker cardiovascular risk reduction program in public health and health care settings. *Am J Public Health*. 2013;103(1):e19-27.
37. Fleury J, Keller C, Perez A, Lee SM. The role of lay health advisors in cardiovascular risk reduction: a review. *Am J Community Psychol*. 2009;44(1-2):28-42.

38. Allen JK, Himmelfarb CR, Szanton SL, Bone L, Hill MN, Levine DM. COACH trial: a randomized controlled trial of nurse practitioner/community health worker cardiovascular disease risk reduction in urban community health centers: rationale and design. *Contemp Clin Trials*. 2011;32(3):403-11.
39. Lujan J, Ostwald SK, Ortiz M. Promotora diabetes intervention for Mexican Americans. *Diabetes Educator*. 2007;33(4):660-70.
40. Norris SL, Chowdhury FM, Van Le K, Horsley T, Brownstein JN, Zhang X, et al. Effectiveness of community health workers in the care of persons with diabetes. *Diabet Med*. 2006;23(5):544-56.
41. Shah M, Kaselitz E, Heisler M. The role of community health workers in diabetes: update on current literature. *Curr Diab Rep*. 2013;13(2):163-71.
42. Kenya S, Chida N, Symes S, Shor-Posner G. Can community health workers improve adherence to highly active antiretroviral therapy in the USA? A review of the literature. *HIV Med*. 2011;12(9):525-34.
43. Wells KJ, Luque JS, Miladinovic B, Vargas N, Asvat Y, Roetzheim RG, et al. Do community health worker interventions improve rates of screening mammography in the United States? A systematic review. *Cancer Epidemiol Biomarkers Prev*. 2011;20(8):1580-98.
44. Lewin S, Munabi BS, Glenton C, Daniels K, Bosch C, X, van-Wyk BE, et al. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. LewinSimon, MunabiBabigumiraSusan, GlentonClaire, DanielsKaren, BoschCapblanchXavier, van WykBrianE, OdgaardJensenJan, JohansenMarit, AjaGodwinN, ZwarensteinMerrick, ScheellingerBLayhealth workersin primary and community health. 2010.
45. Jolly K, Ingram L, Khan KS, Deeks JJ, Freemantle N, MacArthur C. Systematic review of peer support for breastfeeding continuation: metaregression analysis of the effect of setting, intensity, and timing2012 2012-01-25 16:13:23.
46. Duckett SJ. Health workforce design for the 21st century. *Aust Health Rev*. 2005;29(2):201-10.
47. Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE, et al. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database Syst Rev*. 2010(3):CD004015.
48. Cohen S, Gottlieb B H, LG U. Social Relationships and Health. In: Cohen S UL, Gottlieb BH, editor. *Social Support Measurement and Intervention: a guide for health and social scientists*. New York: Oxford University Press; 2000.
49. Abraham C, Michie S. A taxonomy of behavior change techniques used in interventions. *Health Psychol*. 2008;27(3):379-87.
50. Michie S, Richardson M, Johnston M, Abraham C, Francis J, Hardeman W, et al. The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: building an international consensus for the reporting of behavior change interventions. *Ann Behav Med*. 2013;46(1):81-95.
51. People in Public Health Team. *People in Public Health Leeds: Leeds Beckett University*; [cited 2015 07.04.2015]. Available from: <http://www.leedsbeckett.ac.uk/health/piph/>.
52. Mays N, Roberts E, Popay J. Synthesising research evidence. In: Fulop N, Allen P, Clarke A, Black N, editors. *Studying the Organisation and Delivery of Health Services: Research Methods*. London: Routledge; 2001. p. 188-220.
53. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*. 2005;8(1):19-32.
54. Davis K, Drey N, Gould D. What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies*. 2009;46(10):1386-400.

55. Lewin SA, Dick J, Pond P, Zwarenstein M, Aja G, van Wyk B, et al. Lay health workers in primary and community health care. *Cochrane Database Syst Rev.* 2005(1):CD004015.
56. South J WJ, Gamsu M. *People-centred Public Health.* Bristol: Policy Press; 2013.
57. Pawson R. Evidence-based Policy: In Search of a Method. *Evaluation.* 2002;8(2):157-81.
58. Oxford Dictionaries. Lay definition: Oxford University Press; [cited 2015 07.04.2015]. Available from: <http://www.oxforddictionaries.com/definition/english/lay>.
59. Popay J, Williams G, Thomas C, Gatrell T. Theorising Inequalities in Health: The Place of Lay Knowledge. *Sociology of Health & Illness.* 1998;20(5):619-44.
60. Springett J, Owens C, Callaghan J. The challenge of combining 'lay' knowledge with 'evidence-based' practice in health promotion: Fag Ends Smoking Cessation Service. *Critical Public Health.* 2007;17(3):243-56.
61. Taggart AV, Short SD, Barclay L. 'She has made me feel human again': an evaluation of a volunteer home-based visiting project for mothers. *Health & Social Care in the Community.* 2000;8(1):1-8.
62. Perez M, Findley SE, Mejia M, Martinez J. The impact of community health worker training and programs in NYC. *J Health Care Poor Underserved.* 2006;17(1 Suppl):26-43.
63. Rashid SF, Hadi A, Afsana K, Begum SA. Acute respiratory infections in rural Bangladesh: cultural understandings, practices and the role of mothers and community health volunteers. *Tropical Medicine & International Health.* 2001;6(4):249-55.
64. Abrahamsson A, Springett J, Karlsson L, Hakansson A, Ottosson T. Some lessons from Swedish midwives' experiences of approaching women smokers in antenatal care. *Midwifery.* 2005;21(4):335-45.
65. Kaler A, Watkins SC. Disobedient Distributors: Street-level Bureaucrats and Would-be Patrons in Community-based Family Planning Programs in Rural Kenya. *Studies in Family Planning.* 2001;32(3):254-69.
66. Ngoma C, Himwiila L. Community perceptions of trained traditional birth attendants. *African Journal of Midwifery and Women's Health.* 2009;3(3):142-5.
67. Simmons R, Koenig MA, Huque AAZ. *Maternal-Child Health and Family Planning: User Perspectives and Service Constraints in Rural Bangladesh.* Studies in Family Planning. 1990;21(4):187-96.
68. Mathews C, van der Walt H, Barron P. A shotgun marriage--community health workers and government health services. Qualitative evaluation of a community health worker project in Khayelitsha. *S Afr Med J.* 1994;84(10):659-63.
69. Alcock GA, More NS, Patil S, Porel M, Vaidya L, Osrin D. Community-based health programmes: role perceptions and experiences of female peer facilitators in Mumbai's urban slums. *Health Education Research.* 2009;24(6):957-66.
70. Mathole T, Lindmark G, Ahlberg BM. Competing Knowledge Claims in the Provision of Antenatal Care: A Qualitative Study of Traditional Birth Attendants in Rural Zimbabwe. *Health Care for Women International.* 2005;26(10):937-56.
71. Parry J, Mathers J. *A review of the implementation of the national health trainer service initiative.* Birmingham: University of Birmingham, 2013.
72. Eng E, Parker E, Harlan C. Lay Health Advisor Intervention Strategies: A Continuum from Natural Helping to Paraprofessional Helping. *Health Education & Behavior.* 1997;24(4):413-7.
73. Dennis C-L. Peer support within a health care context: a concept analysis. *International Journal of Nursing Studies.* 2003;40(3):321-32.
74. Gilkey M, Garcia CC, Rush C. Professionalization and the Experience-Based Expert: Strengthening Partnerships Between Health Educators and Community Health Workers. *Health Promotion Practice.* 2011;12(2):178-82.

75. Lhussier M, Carr SM. Health-related lifestyle advice: critical insights. *Critical Public Health*. 2008;18(3):299-309.
76. Mathers J, Taylor R, Parry J. The Challenge of Implementing Peer-Led Interventions in a Professionalized Health Service: A Case Study of the National Health Trainers Service in England. *Milbank Quarterly*. 2014;92(4):725-53.
77. Low N, Butt S, Paine E, Davis Smith J. *Helping out: a national survey of volunteering and charitable giving*. London: 2007.
78. Shiner M. Defining peer education. *Journal of Adolescence*. 1999;22(4):555-66.
79. Oxford Dictionaries. Peer definition Oxford: Oxford University Press; 2015 [cited 2015 09.04.2015]. Available from: <http://www.oxforddictionaries.com/definition/english/peer#peer-2>.
80. Dictionary TF. Peer definition Pennsylvania: Farlex; 2015 [cited 2015 09.04.2015]. Available from: <http://www.thefreedictionary.com/peer>.
81. South J, White J, Gamsu M. *The lay perspective. People-centred public health*. Bristol: Policy Press; 2013.
82. Simoni JM, Franks JC, Lehavot K, Yard SS. Peer Interventions to Promote Health: Conceptual Considerations. *The American journal of orthopsychiatry*. 2011;81(3):351-9.
83. Durantini MR, Albarracin D, Mitchell AL, Earl AN, Gillette JC. Conceptualizing the Influence of Social Agents of Behavior Change: A Meta-Analysis of the Effectiveness of HIV-Prevention Interventionists for Different Groups. *Psychol Bull*. 2006;132(2):212-48.
84. Street RL, O'Malley KJ, Cooper LA, Haidet P. Understanding Concordance in Patient-Physician Relationships: Personal and Ethnic Dimensions of Shared Identity. *The Annals of Family Medicine*. 2008;6(3):198-205.
85. George A, Menotti EP, Rivera D, Marsh DR. Community case management in Nicaragua: lessons in fostering adoption and expanding implementation. *Health Policy and Planning*. 2011;26(4):327-37.
86. Hazard CJ, Callister LC, Birkhead A, Nichols L. Hispanic Labor Friends Initiative: supporting vulnerable women. *MCN Am J Matern Child Nurs*. 2009;34(2):115-21.
87. Nankunda J, Tumwine J, Soltvedt Å, Semiyaga N, Ndeezi G, Tylleskär T. Community based peer counsellors for support of exclusive breastfeeding: experiences from rural Uganda. *International Breastfeeding Journal*. 2006;1(1):1-9.
88. Perkins ER, MacFarlane J. Family support by lay workers: a health visiting initiative. *Br J Community Nurs*. 2001;6(1):26-32.
89. Reinschmidt KM, Hunter JB, Fernandez ML, Lacy-Martinez CR, Guernsey de ZJ, Meister J. Understanding the success of promotoras in increasing chronic diseases screening. *J Health Care Poor Underserved*. 2006;17(2):256-64.
90. Meier ER, Olson BH, Benton P, Eghtedary K, Song WO. A Qualitative Evaluation of a Breastfeeding Peer Counselor Program. *Journal of Human Lactation*. 2007;23(3):262-8.
91. Murphy CA, Cupples ME, Percy A, Halliday HL, Stewart MC. Peer-mentoring for first-time mothers from areas of socio-economic disadvantage: a qualitative study within a randomised controlled trial. *BMC Health Serv Res*. 2008;8:46.
92. Jacobson N, Trojanowski L, Dewa CS. What do peer support workers do? A job description. *BMC Health Serv Res*. 2012;12:205.
93. Larkey LK, Alatorre C, Buller DB, Morrill C, Klein Buller M, Taren D, et al. Communication strategies for dietary change in a worksite peer educator intervention. *Health Educ Res*. 1999;14(6):777-90.
94. Lucio RL, Zuniga GC, Seol YH, Garza N, Mier N, Trevino L. Incorporating what promotoras learn: becoming role models to effect positive change. *J Community Health*. 2012;37(5):1026-31.
95. Glenton C, Colvin CJ, Carlsen B, Swartz A, Lewin S, Noyes J, et al. Barriers and facilitators to the implementation of lay health worker programmes to improve access to

- maternal and child health: qualitative evidence synthesis. *Cochrane Database Syst Rev*. 2013;10:CD010414.
96. WHO Study Group on Community Health Workers, editor Strengthening the performance of community health workers in primary health care. WHO Study Group on Community Health Workers; 1987; Geneva: World Health Organisation; 1989.
 97. South J MA, Branney P. People in public health. Expert hearings: a summary report. Leeds: Leeds Metropolitan University, 2009.
 98. US Centers for Disease Control. Principles of Community Engagement Atlanta, GA1997 [09.04.2015]. Available from: <http://www.cdc.gov/phppo/pce/index.htm>.
 99. Bishop C, Earp JA, Eng E, Lynch KS. Implementing a Natural Helper Lay Health Advisor Program: Lessons Learned from Unplanned Events. *Health Promotion Practice*. 2002;3(2):233-44.
 100. Kelly JA. Popular opinion leaders and HIV prevention peer education: resolving discrepant findings, and implications for the development of effective community programmes. *AIDS Care*. 2004;16(2):139-50.
 101. Rogers E. Diffusion of innovations. 4 ed. New York: Free Press; 1995.
 102. Broadhead RS, Heckathorn DD. AIDS Prevention Outreach among Injection Drug Users: Agency Problems and New Approaches. *Social Problems*. 1994;41(3):473-95.
 103. Brownstein JN, Bone LR, Dennison CR, Hill MN, Kim MT, Levine DM. Community health workers as interventionists in the prevention and control of heart disease and stroke. *Am J Prev Med*. 2005;29(5 Suppl 1):128-33.
 104. Kilpatrick SI, Johns SS, Millar P, Le Q, Routley G. Skill shortages in health: innovative solutions using vocational education and training. *RuralRemoteHealth*. 2007;7(1):623.
 105. Mock J, Nguyen T, Nguyen KH, Bui-Tong N, McPhee SJ. Processes and Capacity-Building Benefits of Lay Health Worker Outreach Focused on Preventing Cervical Cancer Among Vietnamese. *Health Promotion Practice*. 2006;7(3_suppl):223S-32.
 106. J R. 'Barefoot doctors' come to Liverpool. GP. 2009 4/3/2009.
 107. Arvey SR, Fernandez ME. Identifying the core elements of effective community health worker programs: a research agenda. *Am J Public Health*. 2012;102(9):1633-7.
 108. South J, Meah A, Bagnall A-M, Jones R. Dimensions of lay health worker programmes: results of a scoping study and production of a descriptive framework. *Global Health Promotion*. 2013;20(1):5-15.
 109. Borkman T. Experiential Knowledge: A New Concept for the Analysis of Self-Help Groups. *Social Service Review*. 1976;50(3):445-56.
 110. Broadhead RS, Heckathorn DD, Altice FL, van Hulst Y, Carbone M, Friedland GH, et al. Increasing drug users' adherence to HIV treatment: results of a peer-driven intervention feasibility study. *Soc Sci Med*. 2002;55(2):235-46.
 111. Kreuter MW, McClure SM. The role of culture in health communication. *Annu Rev Public Health*. 2004;25:439-55.
 112. Nowak A, Others A. From Private Attitude to Public Opinion: A Dynamic Theory of Social Impact. *Psychological Review*. 1990;97(3):362-76.
 113. Dickson-Gomez J, Weeks M, Martinez M, Convey M. Times and Places: Process Evaluation of a Peer-Led HIV Prevention Intervention. *Substance Use & Misuse*. 2006;41(5):669-90.
 114. Ajzen I, Fishbein M. Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice Hall; 1980.
 115. Paterson B. Myth of empowerment in chronic illness. *J Adv Nurs*. 2001;34(5):574-81.
 116. Turner G, Shepherd J. A method in search of a theory: peer education and health promotion. *Health Education Research*. 1999;14(2):235-47.
 117. Peel NM, Warburton J. Using senior volunteers as peer educators: What is the evidence of effectiveness in falls prevention? *Australas J Ageing*. 2009;28(1):7-11.

118. Ebbeling CB, Pearson MN, Sorensen G, Levine RA, Hebert JR, Salkeld JA, et al. Conceptualization and development of a theory-based healthful eating and physical activity intervention for postpartum women who are low income. *Health Promot Pract*. 2007;8(1):50-9.
119. Visram S, Drinkwater S. *Health Trainers: a review of the evidence*. Newcastle: Northumbria University, 2005.
120. Cornell CE, Littleton MA, Greene PG, Pulley L, Brownstein JN, Sanderson BK, et al. A Community Health Advisor Program to reduce cardiovascular risk among rural African-American women. *Health Education Research*. 2009;24(4):622-33.
121. Dilley JW, Woods WJ, Loeb L, Nelson K, Sheon N, Mullan J, et al. Brief cognitive counseling with HIV testing to reduce sexual risk among men who have sex with men: results from a randomized controlled trial using paraprofessional counselors. *J Acquir Immune Defic Syndr*. 2007;44(5):569-77.
122. Wood J. Theory and research concerning social comparisons of personal attributes. *Psychol Bull*. 1989;106(2):231-48.
123. Wills T. Downward comparison principles in social psychology. *Psychol Bull*. 1981;90(2):245-71.
124. Schachter S, Singer J. Cognitive, social, and physiological determinants of emotional state. *Psychological Review*. 1962;69(5):379-99.
125. Festinger L. A theory of social comparison processes. *Human Relations*. 1954;7:117-40.
126. Bandura A. Organizational application of social cognitive theory. *Australian Journal of Management*. 1988;13:275-302.
127. Mancini MA. The Role of Self-efficacy in Recovery from Serious Psychiatric Disabilities: A Qualitative Study with Fifteen Psychiatric Survivors. *Qualitative Social Work*. 2007;6(1):49-74.
128. Bandura A. *Self-efficacy in changing societies*. New York: Cambridge University Press; 1995.
129. South J, White J, Branney P, Kinsella K. Public health skills for a lay workforce: findings on skills and attributes from a qualitative study of lay health worker roles. *Public Health*. 2013;127(5):419-26.
130. Nguyen TT, Le G, Nguyen T, Le K, Lai K, Gildengorin G, et al. Breast Cancer Screening Among Vietnamese Americans: A Randomized Controlled Trial of Lay Health Worker Outreach. *American Journal of Preventive Medicine*. 2009;37(4):306-13.
131. Luque JS, Monaghan P, Contreras RB, August E, Baldwin JA, Bryant CA, et al. Implementation evaluation of a culturally competent eye injury prevention program for citrus workers in a Florida migrant community. *Progress in Community Health Partnerships*. 2007;1(4):359-69.
132. Yu My, Lixin S, Seetoo A, Cuijuan C, Smith G, Oakley D. Culturally Competent Training Program: A Key to Training Lay Health Advisors for Promoting Breast Cancer Screening. *Health Education & Behavior*. 2007;34(6):928-41.
133. Oxford Dictionaries. Culture definition Oxford: Oxford University Press; 2015 [cited 2015 10.04.2015]. Available from: <http://www.oxforddictionaries.com/definition/english/culture>.
134. Betancourt J, Green A, Carrillo E. *Cultural competence in health care: emerging frameworks and practical approaches*. New York: The Commonwealth Fund, 2002.
135. Horevitz E, Lawson J, Chow JC. Examining cultural competence in health care: implications for social workers. *Health Soc Work*. 2013;38(3):135-45.
136. Mier N, Ory MG, Medina AA. Anatomy of culturally sensitive interventions promoting nutrition and exercise in hispanics: a critical examination of existing literature. *Health Promot Pract*. 2010;11(4):541-54.

137. McQuiston C, Uribe L. Latino recruitment and retention strategies: community-based HIV prevention. *J Immigr Health*. 2001;3(2):97-105.
138. Rhodes SD, Foley KL, Zometa CS, Bloom FR. Lay Health Advisor Interventions Among Hispanics/Latinos: A Qualitative Systematic Review. *American Journal of Preventive Medicine*. 2007;33(5):418-27.
139. Wells MI. Beyond cultural competence: a model for individual and institutional cultural development. *J Community Health Nurs*. 2000;17(4):189-99.
140. Dreher M, Macnaughton N. Cultural competence in nursing: foundation or fallacy? *Nurs Outlook*. 2002;50(5):181-6.
141. Liu J, Davidson E, Bhopal R, White M, Johnson M, Netto G, et al. *Adapting Health Promotion Interventions to Meet the Needs of Ethnic Minority Groups: Mixed-Methods Evidence Synthesis*. Southampton (UK): NIHR Journals Library, 2012.
142. Malema RN, Malaka DW, Mothiba TM. Experiences of lay counsellors who provide VCT for PMTCT of HIV and AIDS in the Capricorn District, Limpopo Province. *Curationis*. 2010;33(3):15-23.
143. Heaman M, Chalmers K, Woodgate R, Brown J. Early childhood home visiting programme: factors contributing to success. *Journal of Advanced Nursing*. 2006;55(3):291-300.
144. Kennedy LA, Milton B, Bundred P. Lay food and health worker involvement in community nutrition and dietetics in England: roles, responsibilities and relationship with professionals. *J Hum Nutr Diet*. 2008;21(3):210-24.
145. Earp JAL, Flax VL. An Evaluation of Advisors' Activities. *Cancer Practice*. 1999;7(1):16-21.
146. Coufopoulos A, Coffey M, Dugdill L. Working as a community food worker: Voices from the inside. *Perspectives in Public Health*. 2010.
147. Swider SM. Outcome effectiveness of community health workers: an integrative literature review. *Public Health Nurs*. 2002;19(1):11-20.
148. Crabb W, Moracco J, Bender R. A comparative study of empathy training with programmed instruction for lay helpers. *Journal of Counseling Psychology*. 1983;30(2):221-6.
149. Centers for Disease Control and Prevention. *Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention Atlanta, GA: CDC; 2013 [08.05.2015]*. Available from: <http://www.cdc.gov/hiv/prevention/research/compendium/rr/pol.html>.
150. World Health Organisation. *Community Health Workers: What do we know about them?* Geneva: World Health Organisation, 2007 2007. Report No.
151. Glenton C, Scheel IB, Pradhan S, Lewin S, Hodgins S, Shrestha V. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. *Soc Sci Med*. 2010;70(12):1920-7.
152. Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R. Continuity of care: a multidisciplinary review 2003. 1219-21 p.
153. Beake S, McCourt C, Rowan C, Taylor J. Evaluation of the use of health care assistants to support disadvantaged women breastfeeding in the community. *Maternal & Child Nutrition*. 2005;1(1):32-43.
154. Saultz JW, Lochner J. Interpersonal continuity of care and care outcomes: a critical review. *Ann Fam Med*. 2005;3(2):159-66.
155. Van Walraven C, Oake N, Jennings A, Forster AJ. The association between continuity of care and outcomes: a systematic and critical review. *Journal of Evaluation in Clinical Practice*. 2010;16(5):947-56.
156. Witmer A, Seifer SD, Finocchio L, Leslie J, O'Neil EH. Community health workers: integral members of the health care work force. *Am J Public Health*. 1995;85(8 Pt 1):1055-8.
157. Bisika T. The effectiveness of the TBA programme in reducing maternal mortality and morbidity in Malawi. *East Afr J Public Health*. 2008;5(2):103-10.

158. Resnicow K, Baranowski T, Ahluwalia JS, Braithwaite RL. Cultural sensitivity in public health: defined and demystified. *Ethn Dis.* 1999;9(1):10-21.
159. Fitzgibbon M, Sanchez-Johnsen L. Reduction of health risk in ethnic minority populations. In: Camic P, Knight M, editors. *Clinical Handbook of Health Psychology.* Seattle, WA: Hogrefe and Huber; 2004. p. 343-56.
160. World Health Organisation. Task shifting to tackle health worker shortages. Geneva: World Health Organisation, 2007.
161. Michie S, Rumsey N, Fussell A, Hardeman W, Johnston M, Newman S, et al. *Improving Health: Changing Behaviour.* NHS Health Trainer Handbook. London: Department of Health, 2008.
162. Sheppard VB, Williams KP, Richardson JT. Women's priorities for lay health home visitors: implications for eliminating health disparities among underserved women. *J Health Soc Policy.* 2004;18(3):19-35.
163. Warrick LH, Wood AH, Meister JS, de Zapien JG. Evaluation of a peer health worker prenatal outreach and education program for Hispanic farmworker families. *J Community Health.* 1992;17(1):13-26.
164. South J, Kinsella K, Meah A. Lay perspectives on lay health worker roles, boundaries and participation within three UK community-based health promotion projects. *Health Education Research.* 2012;27(4):656-70.
165. Britten J, Hoddinott P, McInnes R. Breastfeeding peer support: Health service programmes in Scotland. *British Journal of Midwifery.* 2006;14(1):12-9.
166. Hoddinott P, Chalmers M, Pill R. One-to-One or Group-Based Peer Support for Breastfeeding? Women's Perceptions of a Breastfeeding Peer Coaching Intervention. *Birth.* 2006;33(2):139-46.
167. Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: A Randomized, Controlled Trial of a Community Health Worker Intervention to Decrease Exposure to Indoor Asthma Triggers. *American Journal of Public Health.* 2005;95(4):652-9.
168. Eng E, Young R. Lay health advisors as community change agents. *Family & Community Health.* 1992;15(1):24-40.
169. Schuler ME, Nair P, Black MM, Kettinger L. Mother-Infant Interaction: Effects of a Home Intervention and Ongoing Maternal Drug Use. *Journal of Clinical Child Psychology.* 2000;29(3):424-31.
170. Langford CPH, Bowsher J, Maloney JP, Lillis PP. Social support: a conceptual analysis. *Journal of Advanced Nursing.* 1997;25(1):95-100.
171. Barrera M, Jr. Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology.* 1986;14(4):413-45.
172. Cohen S, Underwood L, Gottlieb B. *Social Support Measurement and Intervention.* Oxford: Oxford University Press; 2000.
173. Burleson B. What counts as effective emotional support? In: MT M, editor. *Studies in applied interpersonal communication.* CA (USA): SAGE; 2008.
174. House JS. *Work Stress and Social Support.* Reading, MA: Addison-Wesley; 1981.
175. Antonucci TC. Personal characteristics, social support, and social behaviour. In: R H Binstock ES, editor. *Handbook of aging and the social sciences.* New York: Van Nostrand-Reinhold; 1985. p. 94-128.
176. Burleson BR. The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion, and interpersonal communication. *Personal Relationships.* 2003;10(1):1-23.
177. American Association of Diabetes Educators. *Diabetes Community Health Workers.* *The Diabetes Educator.* 2003;29(5):818-24.

178. Bailey V, Soni A, Alessi C, Atherton F, Dutt R, Farmer P, et al. The NHS's role in the public's health. *NHS Future Forum*, 2012.
179. Laws R, Jayasinghe U, Harris M, Williams A, Powell Davies G, Kemp L. Explaining the variation in the management of lifestyle risk factors in primary health care: A multilevel cross sectional study. *BMC Public Health*. 2009;9(1):1-14.
180. Bell K, Bowers M, McCullough L, Bell J. Physician advice for smoking cessation in primary care: time for a paradigm shift? *Critical Public Health*. 2011;22(1):9-24.
181. Health Resources and Services Administration Office of Rural Health Policy. *Community Health Workers Evidence Based Models Toolbox*. United States Department of Health and Human Services, 2011.
182. Martinez J, Ro M, Villa NW, Powell W, Knickman JR. Transforming the delivery of care in the post-health reform era: what role will community health workers play? *Am J Public Health*. 2011;101(12):e1-5.
183. Friedman AR, Butterfoss FD, Krieger JW, Peterson JW, Dwyer M, Wicklund K, et al. Allies community health workers: Bridging the gap. *Health Promot Pract*. 2006;7(2 Suppl):96S-107S.
184. Gillam S, Levenson R. Linkworkers in primary care : An untapped resource. *BMJ : British Medical Journal*. 1999;319(7219):1215-.
185. South J, Meah A, Bagnall A, Kinsella K, Branney P, White J, et al. *People in public health - a study of approaches to develop and support people in public health roles*. London: National Institute for Health Research Service Delivery and Organisation, 2010.
186. Ingram M, Schachter K, Sabo S, Reinschmidt K, Gomez S, De Zapien J, et al. A Community Health Worker Intervention to Address the Social Determinants of Health Through Policy Change. *The Journal of Primary Prevention*. 2014;35(2):119-23.
187. Joffe H. Representations of health risks: What social psychology can offer health promotion. *Health Education Journal*. 2002;61(2):153-65.
188. Boutin-Foster C, George KS, Samuel T, Fraser-White M, Brown H. Training community health workers to be advocates for health promotion: efforts taken by a community-based organization to reduce health disparities in cardiovascular disease. *JCommunity Health*. 2008;33(2):61-8.
189. Culica D, Walton JW, Harker K, Prezio EA. Effectiveness of a community health worker as sole diabetes educator: comparison of CoDE with similar culturally appropriate interventions. *JHealth Care Poor Underserved*. 2008;19(4):1076-95.
190. Daniels K, Van ZH, Clarke M, Dick J, Johansson E. Ear to the ground: listening to farm dwellers talk about the experience of becoming lay health workers. *Health Policy*. 2005;73(1):92-103.
191. Fisher EB, Strunk RC, Highstein GR, Kelley-Sykes R, Tarr KL, Trinkaus K, et al. A Randomized Controlled Evaluation of the Effect of Community Health Workers on Hospitalization for Asthma: The Asthma Coach. *Archives of Pediatrics Adolescent Medicine*. 2009;163(3):225-32.
192. Han HR, Kim KB, Kim MT. Evaluation of the training of Korean community health workers for chronic disease management. *Health Education Research*. 2007;22(4):513-21.
193. Herce ME, Chapman JA, Castro A, Garcia-Salyano G, Khoshnood K. A role for community health promoters in tuberculosis control in the state of Chiapas, Mexico. *J Community Health*. 2010;35(2):182-9.
194. Mackereth C. Kids and us--a project for lone parent families. *Community Pract*. 2007;80(6):26-8.
195. Mykota DB. Implementing paraprofessional strength-based early intervention home visitations. *Evaluation and Program Planning*. 2008;31(3):266-76.
196. D C. First Pharmacy Health Trainer at Work. *The Pharmaceutical Journal*. 2006;277(7409):76-7.

197. F A. Scaling up health and education workers: community health workers. London: 2005.
198. McCord GC, Liu A, Singh P. Deployment of community health workers across rural sub-Saharan Africa: financial considerations and operational assumptions. *Bull World Health Organ.* 2013;91(4):244-53B.
199. National Center for Chronic Disease Prevention and Health Promotion. States Implementing Community Health Worker Strategies. US Center for Disease Control, 2014.
200. Huberman A, Miles M. *The qualitative researcher's companion.* Newbury Park, CA: SAGE; 2002.
201. Ritchie J, Lewis J, McNaughton-Nicholls C, Ormston R. *Qualitative Research Practice: A Guide for Social Science Students and Researchers.* 2 ed. London: SAGE; 2013.
202. Maxwell J. *A realist approach for qualitative research.* Thousand Oaks, CA: SAGE; 2012.
203. Taylor B, Newall D. *Maternity, Mortality and Migration: the impact of new communities.* Birmingham: Heart of Birmingham Primary Care Trust, 2008.
204. Caelli K RL, Mill J. 'Clear as Mud': Toward Greater Clarity in Generic Qualitative Research. *International Journal of Qualitative Methods.* 2003;2(2):1-24.
205. Merriam SB. *Case study research in education: a qualitative approach.* San Francisco: Josey Bass; 1988.
206. Cooper S, Endacott R. Generic qualitative research: a design for qualitative research in emergency care? *Emerg Med J.* 2007;24(12):816-9.
207. Kahlke. Generic Qualitative Approaches: Pitfalls and Benefits of Methodological Mixology. *International Journal of Qualitative Methods.* 2014;13.
208. Thorne S, Reimer-Kirkham S, O'Flynn-Magee K. The analytic challenge in interpretive description. *International Journal of Qualitative Methods.* 2004;3(1).
209. Thorne S, Kirkham SR, MacDonald-Emes J. Interpretive description: a noncategorical qualitative alternative for developing nursing knowledge. *Res Nurs Health.* 1997;20(2):169-77.
210. Green J, Thorogood N. *Qualitative Methods for Health Research.* 3 ed. London: SAGE; 2009.
211. Elwood SA, Martin DG. "Placing" Interviews: Location and Scales of Power in Qualitative Research. *The Professional Geographer.* 2000;52(4):649-57.
212. Ely M, Anzul M, Freidman T, Garner D, McCormack-Steinmetz A. *Doing Qualitative Research: Circles Within Circles.* London: Falmer; 1991.
213. Shacklock G SJ. *Being Reflexive in Critical Educational and Social Research.* London: Falmer; 1998.
214. Bhopal K. Gender, identity and experience: Researching marginalised groups. *Women's Studies International Forum.* 2010;33(3):188-95.
215. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol.* 2013;13:117.
216. Durand M, Chantler T. *Principles of Social Research.* 2 ed. London: McGraw Hill; 2014.
217. Denzin. *Sociological Methods.* New York: McGraw-Hill; 1978.
218. Hammersley M, Atkinson P. *Ethnography: Principles in Practice.* 2 ed. London: Routledge; 1995.
219. Poland BD. Transcription Quality as an Aspect of Rigor in Qualitative Research. *Qualitative Inquiry.* 1995;1(3):290-310.
220. Glaser BG. The Constant Comparative Method of Qualitative Analysis. *Social Problems.* 1965;12(4):436-45.
221. Lincoln Y, Guba E. *Naturalistic Inquiry.* Newbury Park, CA: SAGE; 1985.

222. Patton MQ. Enhancing the quality and credibility of qualitative analysis. *Health services research*. 1999;34(5 Pt 2):1189-208.
223. Alvesson M, Skoldberg K. *Reflexive Methodology: New Vistas in Qualitative Research*. Newbury Park, CA: SAGE; 2009.
224. Ortlipp M. Keeping and Using Reflective Journals in the Qualitative Research Process. *Qualitative Report*. 2008;13(4):695-705.
225. Services GF. Pregnancy Outreach Workers 2013 [31.05.2015]. Available from: <http://gatewayfs.org/our-work/health-and-wellbeing-services/pregnancy-outreach-workers/>.
226. Birmingham City Council. Population and Census Information: Birmingham City Council; 2014 [08.05.2015]. Available from: <http://www.birmingham.gov.uk/census>.
227. Birmingham City Council. 2010 Births and Deaths. 2011.
228. Birmingham Neighbourhoods. Neighbourhood Geography Birmingham: Birmingham Neighbourhoods; [08.05.2015]. Available from: <http://theneighbourhood.info/know-your-neighbourhood/neighbourhood-geography/>.
229. Birmingham City Council. Areas of Deprivation Birmingham: Birmingham City Council; 2014 [08.05.2015]. Available from: <http://www.birmingham.gov.uk/cs/Satellite?c=Page&childpagename=Development-Planning%2FPageLayout&cid=1223383983302&pagename=BCC%2FCommon%2FWrapper%2FWrapper>.
230. Observatory S. Solihull People and Place. Solihull: Solihull Metropolitan Borough Council, 2014.
231. S M. Fair Solihull, Healthy Lives - One Year On. Solihull: Solihull Metropolitan Borough Council, 2014.
232. Slimming World. Slimming World 2015 [cited 2015 01.10.15]. Available from: <http://www.slimmingworld.co.uk/>.
233. Slimming World. Becoming a Consultant: Slimming World; [08.05.2015]. Available from: <http://www.slimmingworld.com/information/careers/become-a-consultant.html>.
234. Goode WJ. The Profession: Reports and Opinion. *American Sociological Review*. 1960;25(6):902-65.
235. Goodwin N, Curry N, Naylor C, Ross S, Duldig W. *Managing people with long term conditions*. London: The King's Fund, 2010.
236. Durant RW, Brown QL, Cherrington AL, Andreae LJ, Hardy CM, Scarinci IC. Social support among African Americans with heart failure: Is there a role for community health advisors? *Heart & Lung: The Journal of Acute and Critical Care*. 2013;42(1):19-25.
237. MacGeorge E, Feng B, Burleson B. Supportive Communication. In: Knapp ML DJ, editor. *The SAGE Handbook of Interpersonal Communication*. 4 ed. London: SAGE; 2011.
238. Burleson B. Emotional Support Skills. In: Greene J, Burleson B, editors. *Handbook of Communication and Social Interaction Skills*. New York: Routledge 2003. p. 551-94.
239. Sabo B. Reflecting on the concept of compassion fatigue. *Online J Issues Nurs*. 2011;16(1):1.
240. Anderson DG. Coping strategies and burnout among veteran child protection workers. *Child Abuse & Neglect*. 2000;24(6):839-48.
241. Buunk B, Gibbons F. *Health, coping and well-being*. New Jersey: Lawrence Erlbaum; 1997.
242. Gruman J, Rovner MH, French ME, Jeffress D, Sofaer S, Shaller D, et al. From patient education to patient engagement: Implications for the field of patient education. *Patient Education and Counseling*. 2010;78(3):350-6.
243. Michie S, van Stralen M, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*. 2011;6(1):1-12.

244. Gudykunst W. *Theorizing about intercultural communication*. Thousand Oaks, CA: SAGE; 2005.
245. Gudykunst W. *Anxiety/Uncertainty Management Theory*. In: EM G, editor. *A first look at communication theory*. 6 ed. Boston, MA: McGraw-Hill; 2006.
246. Michie S, West R. Behaviour change theory and evidence: a presentation to Government. *Health Psychology Review*. 2012;7(1):1-22.
247. West R. Theory Summary - PRIME Theory of Motivation [08.05.2015]. Available from: <http://www.primetheory.com/summary-prime-motivation.php>.
248. NHS. Peer Support Teams No date [31.05.2015]. Available from: <http://www.amazingbreastmilk.nhs.uk/support/peer-support-teams/>.
249. Kahneman D, Diener E, Schwartz N. *Wellbeing: the foundations of hedonic psychology*. New York: Russel Sage Foundation; 1999.
250. Mathers J, Parry J, Jones S. Exploring Resident (Non-)participation in the UK New Deal for Communities Regeneration Programme. *Urban Studies*. 2008;45(3):591-606.
251. Hausman DM, Welch B. Debate: To Nudge or Not to Nudge*. *Journal of Political Philosophy*. 2010;18(1):123-36.
252. Thaler R, Sunstein C. *Nudge: Improving decisions about health, wealth, and happiness*. New Haven: Yale; 2008.
253. Gough D, Thomas J, Oliver S. Clarifying differences between review designs and methods. *Systematic Reviews*. 2012;1:28-.
254. Pham MT, Rajić A, Greig JD, Sargeant JM, Papadopoulos A, McEwen SA. A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Research Synthesis Methods*. 2014;5(4):371-85.
255. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implementation Science : IS*. 2010;5:69-.
256. Whittemore R, Chao A, Jang M, Minges KE, Park C. Methods for knowledge synthesis: an overview. *Heart Lung*. 2014;43(5):453-61.
257. Daudt HM, van Mossel C, Scott SJ. Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework. *BMC Med Res Methodol*. 2013;13:48.
258. Barry CA, Britten N, Barber N, Bradley C, Stevenson F. Using reflexivity to optimize teamwork in qualitative research. *Qual Health Res*. 1999;9(1):26-44.
259. Barbour RS. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? 2001 2001-05-05 07:00:00. 1115-7 p.
260. Maykut P, Morehouse R. *Beginning qualitative research: a philosophic and practical guide*. London: Falmer Press; 1994.
261. Shenton AK. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*. 2004;22(2):63-75.
262. O'Reilly M, Parker N. 'Unsatisfactory Saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*. 2013;13(2):190-7.
263. Charmaz K. *Constructing Grounded Theory: a Practice Guide through Qualitative Analysis*. London: Sage; 2006.
264. Morse JM. The Significance of Saturation. *Qualitative Health Research*. 1995;5(2):147-9.
265. Mason M. Sample Size and Saturation in PhD Studies Using Qualitative Interviews. *Qualitative Social Research*. 2010;11 [SI](3).
266. Felsen CB, Shaw EK, Ferrante JM, Lacroix LJ, Crabtree BF. Strategies for in-person recruitment: lessons learned from a New Jersey primary care research network (NJPCRN) study. *J Am Board Fam Med*. 2010;23(4):523-33.
267. Porter EJ, Lanes TI. Targeting intermediaries to recruit older women for qualitative, longitudinal research. *J Women Aging*. 2000;12(1-2):63-75.

268. Renert H, Russell-Mayhew S, Arthur N. Recruiting Ethnically Diverse Participants into Qualitative Health Research: Lessons Learned. *The Qualitative Report*. 2013;18(12):1-13.
269. Spratling R. Recruitment of Medically Fragile Children and Adolescents: Lessons Learned From Qualitative Research. *Journal of Pediatric Health Care*. 27(1):62-5.
270. Eide P, Allen C. Recruiting Transcultural Qualitative Research Participants: A Conceptual Model. *International Journal of Qualitative Methods*. 2005;4(2).
271. Qu SQ, Dumay J. The qualitative research interview. *Qualitative Research in Accounting & Management*. 2011;8(3):238-64.
272. Yancey AK, Ortega AN, Kumanyika SK. Effective recruitment and retention of minority research participants. *Annu Rev Public Health*. 2006;27:1-28.
273. Russell ML, Moralejo DG, Burgess ED. Paying Research Subjects: Participants' Perspectives. *Journal of Medical Ethics*. 2000;26(2):126-30.
274. Karnieli-Miller O, Strier R, Pessach L. Power Relations in Qualitative Research. *Qualitative Health Research*. 2009;19(2):279-89.
275. Grewal I, Ritchie J. Ethnic and language matching of the researcher and the research group during design, fieldwork, and analysis. In: JY N, editor. *Health and social research in multiethnic societies*. Oxford: Routledge; 2006.
276. Carlisle S, Cropper S. Investing in lay researchers for community-based health action research: implications for research, policy and practice. *Critical Public Health*. 2009;19(1):59-70.
277. Graham H. Surveying through stories. In: Gramanikow E MD, Purvis J, Taylorson D, editor. *The Public and Private*. London: Heinemann Educational Books; 1984. p. 132-46.
278. A; O. *Interviewing Women: A Contradiction in Terms?* New Jersey: Prentice Hall; 2002.
279. Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *BMJ*. 2000;320(7227):114-6.
280. Hawk TF, Shah AJ. Using Learning Style Instruments to Enhance Student Learning. *Decision Sciences Journal of Innovative Education*. 2007;5(1):1-19.
281. Katigbak C, Van Devanter N, Islam N, Trinh-Shevrin C. Partners in health: a conceptual framework for the role of community health workers in facilitating patients' adoption of healthy behaviors. *Am J Public Health*. 2015;105(5):872-80.
282. Foot J, Hopkins T. *A glass half full: how an asset approach can improve community health and wellbeing*. London: Improvement and Development Agency, London, 2010.
283. Lindström B, Eriksson M. Salutogenesis. *Journal of Epidemiology and Community Health*. 2005;59(6):440-2.
284. Foot J. What makes us healthy? The asset approach in practice: evidence, action, evaluation. 2012.
285. Friedli L. 'What we've tried, hasn't worked': the politics of assets based public health. *Critical Public Health*. 2013;23(2):131-45.
286. McLean J. *Asset-based approaches to health improvement: redressing the balance* Glasgow: Glasgow Centre for Population Health, 2011.
287. Uriarte JA, Cummings ADL, Lloyd LE. An Instructional Design Model for Culturally Competent Community Health Worker Training. *Health Promotion Practice*. 2014;15(1 suppl):56S-63S.
288. Andrews JO, Felton G, Wewers ME, Heath J. Use of Community Health Workers in Research With Ethnic Minority Women. *Journal of Nursing Scholarship*. 2004;36(4):358-65.
289. Bovbjerg R, Eyster L, Ormond B, Anderson T, Richardson E. *The evolution, expansion, and effectiveness of community health workers*. Washington, DC: The Urban Institute, 2013.
290. Sabo S, Ingram M, Reinschmidt KM, Schachter K, Jacobs L, Guernsey de Zapien J, et al. Predictors and a Framework for Fostering Community Advocacy as a Community Health

- Worker Core Function to Eliminate Health Disparities. *American Journal of Public Health*. 2013;103(7):e67-e73.
291. Arreola S. *Community Systems Strengthening: Toward a Research Agenda*. Toronto, Canada: International Council of AIDS Service Organizations (ICASO), 2014.
292. Local Government Association. *Joint Strategic Needs Assessment and knowing your community and origins 2012* [28.05.2015]. Available from: http://www.local.gov.uk/web/guest/health/-/journal_content/56/10180/3510450/ARTICLE.
293. Andrews J, Felton G, Wewers ME, Waller J, Tingen M. The Effect of a Multi-Component Smoking Cessation Intervention in African American Women Residing in Public Housing. *Research in Nursing and Health*. 2007;30(1):45-60.
294. Arcury TA, Marin A, Snively BM, Hernandez-Pelletier M, Quandt SA. *Health Promotion Practice*. 2009;10(3):447-55.
295. Babamoto KS, Sey KA, Camilleri AJ, Karlan VJ, Catalasan J, Morisky DE. Improving Diabetes Care and Health Measures Among Hispanics Using Community Health Workers: Results From a Randomized Controlled Trial. *Health Education & Behavior*. 2009;36(1):113-26.
296. Baksi AK. Experiences in peer-to-peer training in diabetes mellitus: challenges and implications. *Family Practice*. 2010;27:i40-i5.
297. Balcazar HG, Byrd TL, Ortiz M, Tondapu SR, Chavez M. A Randomized Community Intervention to Improve Hypertension Control among Mexican Americans: Using the Promotoras de Salud Community Outreach Model. *Journal of Health Care for the Poor and Underserved*. 2009;20(4):1079-94.
298. Balcazar H, Alvarado M, Cantu F, Pedregon V, Fulwood R. A promotora de salud model for addressing cardiovascular disease risk factors in the US-Mexico border region. *Preventing Chronic Disease*. 2009;6(1):A02.
299. Balcazar H, Alvarado M, Hollen ML, Gonzalez-Cruz Y, Hughes O, Vazquez E, et al. Salud Para Su Corazon-NCLR: a comprehensive Promotora outreach program to promote heart-healthy behaviors among hispanics. *Health Promot Pract*. 2006;7(1):68-77.
300. Bancroft GV, Barlow JH, Turner AP, Wright CC. Self-management training for people with chronic disease: an exploratory study. *British Journal of Health Psychology*. 2005:465-76.
301. Boulton AF, Gifford HH, Potaka-Osborne M. Realising whanau ora through community action: the role of Maori community health workers. *Education for Health*. 2009;22(2):188.
302. Brown EJ, Smith FB. A tri-level HIV-prevention educational intervention. *International Journal of Nursing Education Scholarship*. 2005;2(1):12p.
303. Burhansstipanov L, Dignan MB, Schumacher A, Krebs LU, Alfonsi G, Apodaca CC. Breast screening navigator programs within three settings that assist underserved women. *Journal of Cancer Education*. 2010;25(2):247-52.
304. Calhoun EA, Whitley EM, Esparza A, Ness E, Greene A, Garcia R, et al. A national patient navigator training program. *Health Promotion Practice*. 2010;11(2):205-15.
305. Campbell MK, Resnicow K, Carr C, Wang T, Williams A. Process Evaluation of an Effective Church-Based Diet Intervention: Body & Soul. *Health Education & Behavior*. 2007;34(6):864-80.
306. Carter M, Karwalajtys T, Chambers L, Kaczorowski J, Dolovich L, Gierman T, et al. Implementing a standardized community-based cardiovascular risk assessment program in 20 Ontario communities. *Health Promotion International*. 2009;24(4):325-33.
307. Chiu LF, West RM. Health intervention in social context: Understanding social networks and neighbourhood. *Social Science & Medicine*. 2007;65(9):1915-27.

308. Comellas M, Walker EA, Movsas S, Merkin S, Zonszein J, Strelnick H. Training community health promoters to implement diabetes self-management support programs for urban minority adults. *Diabetes Educator*. 2010;36(1):141-51.
309. Craig E, Judd F, Hodgins G. Therapeutic Group Programme for Women with Postnatal Depression in Rural Victoria: A Pilot Study. *Australasian Psychiatry*. 2005;13(3):291-5.
310. Cresswell J. Health trainers -- the evidence. *HealthEX Specialist*. 2006(7):9-10.
311. Cross Sudworth F. Maternity linkworkers: a Cinderella service? *RCM Midwives*. 2007;10(7):325-7.
312. Crump SR, Shipp MP-L, McCray GG, Morris SJ, Okoli JA, Caplan LS, et al. Abnormal Mammogram Follow-Up: Do Community Lay Health Advocates Make a Difference? *Health Promotion Practice*. 2008;9(2):140-8.
313. Dennis CL. Postpartum depression peer support: Maternal perceptions from a randomized controlled trial. *International Journal of Nursing Studies*. 2010;47(5):560-8.
314. Dennis CL, Hodnett E, Kenton L, Weston J, Zupancic J, Stewart DE, et al. Effect of Peer Support on Prevention of Postnatal Depression among High Risk Women: Multisite Randomised Controlled Trial. *BMJ (British Medical Journal)*. 2009;338(7689):280-4.
315. Elder JP, Ayala GX, Slymen DJ, Arredondo EM, Campbell NR. Evaluating Psychosocial and Behavioral Mechanisms of Change in a Tailored Communication Intervention. *Health Education & Behavior*. 2009;36(2):366-80.
316. Farquhar SA, Wiggins N, Michael YL, Luhr G, Jordan J, Lopez A. "Sitting in different chairs:" roles of the community health workers in the Poder es Salud/Power for Health Project. *Education for Health*. 2008;21(2):39.
317. Faulkner M, Davies S. Social support in the healthcare setting: the role of volunteers. *Health and Social Care in the Community* 2005; 13 (1): 38-45 (January 2005). 2005.
318. Fernandez ME, Gonzales A, Tortolero-Luna G, Williams J, Saavedra-Embesi M, Chan WY, et al. Effectiveness of Cultivando La Salud: A Breast and Cervical Cancer Screening Promotion Program for Low-Income Hispanic Women. *American Journal of Public Health*. 2009;99(5):936-43.
319. Fowler BA, Rodney M, Roberts S, Broadus L. Collaborative breast health intervention for African American women of lower socioeconomic status. *Oncology Nursing Forum*. 2005;32(6):1207-16.
320. Funnell MM. Peer-based behavioural strategies to improve chronic disease self-management and clinical outcomes: evidence, logistics, evaluation considerations and needs for future research. *Fam Pract*. 2010;27 Suppl 1:i17-22.
321. Griffiths C, Foster G, Ramsay J, Eldridge S, Taylor S. How Effective are Expert Patient (Lay Led) Education Programmes for Chronic Disease? *BMJ (British Medical Journal)*. 2007;334(7606):1254-6.
322. Improving health: changing behaviour: NHS health trainer handbook. London: DH; 2008 2008.
323. Halliday J, Wilkinson T. Young, vulnerable and pregnant: family support in practice. *Community Practitioner*. 2009;82(10):27-30.
324. Han HR, Lee H, Kim MT, Kim KB. Tailored lay health worker intervention improves breast cancer screening outcomes in non-adherent Korean-American women. *Health Educ Res*. 2009;24(2):318-29.
325. Heisler M. From research to practice/DSME support. Overview of peer support models to improve diabetes self-management and clinical outcomes. *Diabetes Spectrum*. 2007;20(4):214-21.
326. Heisler M, Spencer M, Forman J, Robinson C, Shultz C, Palmisano G, et al. Participants' Assessments of the Effects of a Community Health Worker Intervention on

- Their Diabetes Self-Management and Interactions with Healthcare Providers. *American Journal of Preventive Medicine*. 2009;37(6S1):S270-S9.
327. Hiatt RA, Pasick RJ, Stewart S, Bloom J, Davis P, Gardiner P, et al. Cancer screening for underserved women: The Breast and Cervical Cancer Intervention Study. *Cancer Epidemiology Biomarkers & Prevention*. 2008;17(8):1945-9.
328. Hoddinott P, Britten J, Pill R. Why do interventions work in some places and not others: a breastfeeding support group trial. *Social Science & Medicine*. 2010;70(5):769-78.
329. Hodnett ED, Fredericks S, Weston J. Support during pregnancy for women at increased risk of low birthweight babies. [Review] [70 refs][Update of Cochrane Database Syst Rev. 2003;(3):CD000198; PMID: 12917888]. *Cochrane Database of Systematic Reviews*. 2010;6:CD000198.
330. Jandorf L, Bursac Z, Pulley L, Trevino M, Castillo A, Erwin DO. Breast and cervical cancer screening among Latinas attending culturally specific educational programs. *Progress in Community Health Partnerships*. 2008;2(3):195-204.
331. Kaczorowski J, Chambers LW, Karwalajtys T, Dolovich L, Farrell B, McDonough B, et al. Cardiovascular Health Awareness Program (CHAP): A community cluster-randomised trial among elderly Canadians. *Preventive Medicine*. 2008;46(6):537-44.
332. Kennedy L. Benefits arising from lay involvement in community-based public health initiatives: the experience from community nutrition. *Perspectives in Public Health* 2010;130(4):165-172 (July 2010). 2010.
333. Kobetz E, Vatalaro K, Moore A, Earp JA. Taking the transtheoretical model into the field: a curriculum for lay health advisors. *Health Promotion Practice*. 2005;6(3):329-37.
334. Layne JE, Sampson SE, Mallio CJ, Hibberd PL, Griffith JL, Das SK, et al. Successful dissemination of a community-based strength training program for older adults by peer and professional leaders: the people exercising program. *Journal of the American Geriatrics Society*. 2008;56(12):2323-9.
335. MacArthur C, Jolly K, Ingram L, Freemantle N, Dennis CL, Hamburger R, et al. Antenatal Peer Support Workers and Initiation of Breast Feeding: Cluster Randomised Controlled Trial. *BMJ (British Medical Journal)*. 2009;338(7691):392-5.
336. Mack M, Uken R, Powers J. People Improving the Community's Health: Community Health Workers as Agents of Change. *Journal of Health Care for the Poor and Underserved*. 2006;17(1 supplement):16-25.
337. Mackenzie M. Benefit or burden: introducing paraprofessional support staff to health visiting teams: the case of Starting Well. *Health and Social Care in the Community* 2006; 14 (6): 523-531 (November 2006). 2006:523-31.
338. Marin A, Carrillo L, Arcury TA, Grzywacz JG, Coates ML, Quandt SA. Ethnographic evaluation of a lay health promoter program to reduce occupational injuries among Latino poultry processing workers. *Public Health Reports*. 2009;124:Suppl-43.
339. Martin M, Camargo M, Ramos L, Lauderdale D, Krueger K, Lantos J. The evaluation of a Latino community health worker HIV prevention program. *Hispanic Journal of Behavioral Sciences*. 2005;27(3):371-84.
340. Martinez-Donate AP. Using lay health advisors to promote breast and cervical cancer screening among Latinas: a review. [Review] [33 refs]. *WMJ*. 2009;108(5):259-62.
341. Matthews AK, Berrios N, Darnell JS, Calhoun E. A Qualitative Evaluation of a Faith-Based Breast and Cervical Cancer Screening Intervention for African American Women. *Health Education & Behavior*. 2006;33(5):643-63.
342. McCloskey J. Promotores as partners in a community-based diabetes intervention program targeting Hispanics. *Family & Community Health*. 2009;32(1):48-57.
343. McElmurry BJ, McCreary LL, Park CG, Ramos L, Martinez E, Parikh R, et al. Implementation, outcomes, and lessons learned from a collaborative primary health care

- program to improve diabetes care among urban Latino populations. *Health Promotion Practice*. 2009;10(2):293-302.
344. Minore B, Jacklin K, Boone M, Cromarty H. Realistic expectations: the changing role of paraprofessional health workers in First Nation communities in Canada. *Education for Health*. 2009;22(2):298.
345. Mock J, McPhee SJ, Nguyen T, Wong C, Doan H, Lai KQ, et al. Effective lay health worker outreach and media-based education for promoting cervical cancer screening among Vietnamese American women. *American Journal of Public Health*. 2007;97(9):1693-700.
346. Molloy M. Volunteering as a community mother: a pathway to lifelong learning. *Community Practitioner* 2007; 80 (5): 28-32 (May 2007). 2007.
347. Newbould J, Taylor D, Bury M. Lay-led Self-Management in Chronic Illness: A Review of the Evidence. *Chronic Illness*. 2006;2(4):249-61.
348. Nguyen TT, Love MB, Liang C, Fung LC, Nguyen T, Wong C, et al. A pilot study of lay health worker outreach and colorectal cancer screening among Chinese Americans. *J Cancer Educ*. 2010;25(3):405-12.
349. Nguyen TUN, Tanjasiri SP, Kagawa-Singer M, Tran JH, Foo MA. Community Health Navigators for Breast- and Cervical-Cancer Screening Among Cambodian and Laotian Women: Intervention Strategies and Relationship-Building Processes. *Health Promotion Practice*. 2008;9(4):356-67.
350. Parra-Medina D, Messias DK, Fore E, Rachel M, Petry D, Das IP. The partnership for cancer prevention: addressing access to cervical cancer screening among Latinas in South Carolina. *Journal - South Carolina Medical Association*. 2009;105(7):297-305.
351. Powell ME, Carter V, Bonsi E, Johnson G, Williams L, Taylor-Smith L, et al. Increasing Mammography Screening among African American Women in Rural Areas. *Journal of Health Care for the Poor and Underserved*. 2005;16(supplement A):11-21.
352. Ramos RL, Ferreira-Pinto JB, Rusch ML, Ramos ME. Pasa la voz (spread the word): using women's social networks for HIV education and testing. *Public Health Reports*. 2010;125(4):528-33.
353. Ramos RL, Green NL, Shulman LC. Pasa la Voz: using peer driven interventions to increase Latinas' access to and utilization of HIV prevention and testing services. *Journal of Health Care for the Poor & Underserved*. 2009;20(1):29-35.
354. Ramos RL, Hernandez A, Ferreira-Pinto JB, Ortiz M, Somerville GG. Promovision: designing a capacity-building program to strengthen and expand the role of promotores in HIV prevention. *Health Promotion Practice*. 2006;7(4):444-9.
355. Releford BJ, Frencher SK, Jr., Yancey AK, Norris K. Cardiovascular disease control through barbershops: design of a nationwide outreach program. *Journal of the National Medical Association*. 2010;102(4):336-45.
356. Robinson KL, Watters S. Bridging the communication gap through implementation of a Patient Navigator program. *Pennsylvania Nurse*. 2010;65(2):19-22.
357. Schoenberg NE, Hatcher J, Dignan MB, Shelton B, Wright S, Dollarhide KF. Faith Moves Mountains: an Appalachian cervical cancer prevention program. *American Journal of Health Behavior*. 2009;33(6):627-38.
358. Scorer C. Health trainers implementing a new public health role. *Journal of the Royal Society for the Promotion of Health*. 2007;127(6):258-9.
359. Scott VJ, Votova K, Gallagher E. Falls prevention training for community health workers: Strategies and Actions for Independent Living (SAIL). *Journal of Gerontological Nursing*. 2006;32(10):48-56.
360. Smith C, Prosser M, Joomun L. A research evaluation of health support workers in a Sure Start project. *Community Practitioner*. 2007;80(11):32-5.
361. Swider SM, Martin M, Lynas C, Rothschild S. Project MATCH: training for a promotora intervention. *Diabetes Educator*. 2010;36(1):98-108.

362. Taylor VM, Hislop TG, Tu SP, Teh C, Acorda E, Yip MP, et al. Evaluation of a hepatitis B lay health worker intervention for Chinese Americans and Canadians. *Journal of Community Health*. 2009;34(3):165-72.
363. Taylor VM, Jackson JC, Yasui Y, Nguyen TT, Woodall E, Acorda E, et al. Evaluation of a cervical cancer control intervention using lay health workers for Vietnamese American women. *Am J Public Health*. 2010;100(10):1924-9.
364. Thompson JR, Horton C, Flores C. Advancing diabetes self-management in the Mexican American population: a community health worker model in a primary care setting. *Diabetes Educator*. 2007;33:159S-65.
365. Trayers T, Lawlor DA. Bridging the gap in health inequalities with the help of health trainers: a realistic task in hostile environments?: a short report for debate. *Journal of Public Health* 2007; 29 (3): 218-221 (September 2007). 2007.
366. Victor RG, Ravenell JE, Freeman A, Bhat DG, Storm JS, Shafiq M, et al. A barber-based intervention for hypertension in African American men: design of a group randomized trial. *American Heart Journal*. 2009;157(1):30-6.
367. Villablanca AC, Arline S, Lewis J, Raju S, Sanders S, Carrow S. Outcomes of national community organization cardiovascular prevention programs for high-risk women. *Journal of Cardiovascular Translational Research*. 2009;2(3):306-20.
368. Walker DG, Jan S. How do we determine whether community health workers are cost-effective? Some core methodological issues. *J Community Health*. 2005;30(3):221-9.
369. Walkup JT, Barlow A, Mullany BC, Pan W, Goklish N, Hasting R, et al. Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2009;48(6):591-601.
370. Wasserman MR, Bender DE, Lee S, Morrissey JP, Mouw T, Norton EC. Social support among Latina immigrant women: bridge persons as mediators in cervical cancer screening. *Journal of Immigrant & Minority Health*. 2006;8(1):67-84.
371. Whitley EM, Everhart RM, Wright RA. Measuring Return on Investment of Outreach by Community Health Workers. *Journal of Health Care for the Poor and Underserved*. 2006;17(1 supplement):6-15.
372. Williams JK, Ramamurthi HC, Manago C, Harawa NT. Learning from successful interventions: A culturally congruent HIV risk-reduction intervention for African American men who have sex with men and women. *American Journal of Public Health*. 2009;99(6):1008-12.
373. Williams KP, Mabiso A, Jackson TL, Lawshe DC, Maurer J. Breast cancer and cervical cancer control program enrollees inform the kin keeper curriculum. *Journal of Cancer Education*. 2009;24(4):257-60.
374. Williams KP, Mullan PB, Todem D. Moving from theory to practice: implementing the Kin Keeper Cancer Prevention Model. *Health Education Research*. 2009;24(2):343-56.
375. Wilson TE, Fraser-White M, Feldman J, Homel P, Wright S, King G, et al. Hair Salon Stylists as Breast Cancer Prevention Lay Health Advisors for African American and Afro-Caribbean Women. *Journal of Health Care for the Poor and Underserved*. 2008;19(1):216-26.
376. Woodruff SI, Candelaria JI, Elder JP. Recruitment, training outcomes, retention, and performance of community health advisors in two tobacco control interventions for Latinos. *Journal of Community Health*. 2010;35(2):124-34.
377. Yu My, Song L, Seetoo A, Cai C, Smith G, Oakley D. Culturally Competent Training Program: A Key to Training Lay Health Advisors for Promoting Breast Cancer Screening. *Health Education & Behavior*. 2007;34(6):928-41.
378. De Jesus M. HIV/AIDS and immigrant Cape Verdean women: contextualized perspectives of Cape Verdean community advocates. *Am J Community Psychol*. 2007;39(1-2):121-31.

379. Ingram J, Rosser J, Jackson D. Breastfeeding peer supporters and a community support group: evaluating their effectiveness. *Matern Child Nutr.* 2005;1(2):111-8.
380. Plescia M, Groblewski M, Chavis L. A lay health advisor program to promote community capacity and change among change agents. *Health Promot Pract.* 2008;9(4):434-9.
381. Lehman AM, Sanders D. *Community health workers: What do we know about them?* . Geneva: World Health Organisation, 2007.
382. Roman LA, Lindsay JK, Moore JS, Shoemaker AL. Community health workers: examining the Helper Therapy principle. *Public Health Nurs.* 1999;16(2):87-95.
383. Andrews JO, Bentley G, Crawford S, Pretlow L, Tingen MS. Using community-based participatory research to develop a culturally sensitive smoking cessation intervention with public housing neighborhoods. *Ethn Dis.* 2007;17(2):331-7.
384. Casiday R, Kinsman E, Fisher C, Bambra C. *Volunteering and health: what impact does it really have?* Wales: Volunteering England, 2008.
385. Craine N, Mark Walker A, Williamson S, Bottomley T. Reducing the risk of exposure to HCV amongst injecting drug users: Lessons from a peer intervention project in Northwest Wales. *Journal of Substance Use.* 2006;11(3):217-27.
386. Davis Smith J, Gay P. *Volunteering in retirement.* York: Institute for Volunteering Research, 2005.
387. Devilly GJ, Sorbello L, Eccleston L, Ward T. Prison-based peer-education schemes. *Aggression and Violent Behavior.* 2005;10(2):219-40.
388. Garfein RS, Golub ET, Greenberg AE, Hagan H, Hanson DL, Hudson SM, et al. A peer-education intervention to reduce injection risk behaviors for HIV and hepatitis C virus infection in young injection drug users. *AIDS.* 2007;21(14):1923-32.
389. Greenhalgh T, Collard A, Begum N. Sharing stories: complex intervention for diabetes education in minority ethnic groups who do not speak English. *BMJ.* 2005;330(7492):628.
390. Hinton A, Downey J, Lisovicz N, Mayfield-Johnson S, White-Johnson F. The community health advisor program and the deep South network for cancer control: health promotion programs for volunteer community health advisors. *Fam Community Health.* 2005;28(1):20-7.
391. Kash BA, May ML, Tai-Seale M. Community health worker training and certification programs in the United States: findings from a national survey. *Health Policy.* 2007;80(1):32-42.
392. Kim S, Flaskerud JH, Koniak-Griffin D, Dixon EL. Using community-partnered participatory research to address health disparities in a Latino community. *J Prof Nurs.* 2005;21(4):199-209.
393. Muirhead PE, Butcher G, Rankin J, Munley A. The effect of a programme of organised and supervised peer support on the initiation and duration of breastfeeding: a randomised trial. *Br J Gen Pract.* 2006;56(524):191-7.
394. Neuberger J. *Volunteering in the public services: health and social care.* London: Office of the Third Sector, 2008.
395. Nichols DC, Berrios C, Samar H. Texas' Community Health Workforce: From State Health Promotion Policy to Community-level Practice. *Preventing Chronic Disease.* 2005;2(Spec No):A13.
396. Paskett E, Tatum C, Rushing J, Michielutte R, Bell R, Long Foley K, et al. Randomized trial of an intervention to improve mammography utilization among a triracial rural population of women. *J Natl Cancer Inst.* 2006;98(17):1226-37.
397. Agency; TC. *Walking the Way to Health.* London: The Countryside Agency, 2005.

398. Watt RG, McGlone P, Russell JJ, Tull KI, Dowler E. The process of establishing, implementing and maintaining a social support infant feeding programme. *Public Health Nutr.* 2006;9(6):714-21.
399. Webster G. Evaluation of Leeds Healthy Living Centres. Leeds: Labyrinth Consultancy and Training, 2005.
400. Weeks MR, Dickson-Gomez J, Mosack KE, Convey M, Martinez M, Clair S. The Risk Avoidance Partnership: Training Active Drug Users as Peer Health Advocates. *Journal of drug issues.* 2006;36(3):541-70.
401. Sauaia A, Welsh AL, Byers T, Min S-j, Jacobellis J. The Effect of Two Church-based Interventions on Breast Cancer Screening Rates Among Medicaid-Insured Latinas. *Preventing Chronic Disease.* 2005;2(4):A07.
402. Alvillar M, Quinlan J, Rush CH, Dudley DJ. Recommendations for developing and sustaining community health workers. *J Health Care Poor Underserved.* 2011;22(3):745-50.
403. Ayala GX. Effects of a promotor-based intervention to promote physical activity: Familias Sanas y Activas. *Am J Public Health.* 2011;101(12):2261-8.
404. Balcazar H, Wise S, Rosenthal EL, Ochoa C, Rodriguez J, Hastings D, et al. An ecological model using promotores de salud to prevent cardiovascular disease on the US-Mexico border: the HEART project. *Prev Chronic Dis.* 2012;9:E35.
405. Balcazar H, Rosenthal EL, Brownstein JN, Rush CH, Matos S, Hernandez L. Community health workers can be a public health force for change in the United States: three actions for a new paradigm. *American Journal of Public Health.* 2011;101(12):2199-203.
406. Ball L, Nasr N. A qualitative exploration of a health trainer programme in two UK primary care trusts. *Perspect Public Health.* 2011;131(1):24-31.
407. Brown N, Vaughn NA, Lin AJ, Browne R, White M, Smith P. Healthy families Brooklyn: working with health advocates to develop a health promotion program for residents living in New York City housing authority developments. *J Community Health.* 2011;36(5):864-73.
408. Brownstein JN, Hirsch GR, Rosenthal EL, Rush CH. Community health workers "101" for primary care providers and other stakeholders in health care systems. *J Ambul Care Manage.* 2011;34(3):210-20.
409. Carter-Pokras OD, Jaschek G, Martinez IL, Brown PB, Mora SE, Newton N, et al. Perspectives on Latino lay health promoter programs: Maryland, 2009. *Am J Public Health.* 2011;101(12):2281-6.
410. Clark AM, Munday C, McLaughlin D, Catto S, McLaren A, Macintyre PD. Peer support to promote physical activity after completion of centre-based cardiac rehabilitation: evaluation of access and effects. *Eur J Cardiovasc Nurs.* 2012;11(4):388-95.
411. Colleran K, Harding E, Kipp BJ, Zurawski A, MacMillan B, Jelinkova L, et al. Building capacity to reduce disparities in diabetes: training community health workers using an integrated distance learning model. *Diabetes Educ.* 2012;38(3):386-96.
412. Cook T, Wills J. Engaging with marginalized communities: the experiences of London health trainers. *Perspect Public Health.* 2012;132(5):221-7.
413. Dale JR, Williams SM, Bowyer V. What is the effect of peer support on diabetes outcomes in adults? A systematic review. *Diabet Med.* 2012;29(11):1361-77.
414. Daniels EC, Powe BD, Metoyer T, McCray G, Baltrus P, Rust GS. Increasing knowledge of cardiovascular risk factors among African Americans by use of community health workers: the ABCD community intervention pilot project. *J Natl Med Assoc.* 2012;104(3-4):179-85.
415. Dudley DJ, Drake J, Quinlan J, Holden A, Saegert P, Karnad A, et al. Beneficial effects of a combined navigator/promotora approach for Hispanic women diagnosed with breast abnormalities. *Cancer Epidemiol Biomarkers Prev.* 2012;21(10):1639-44.

416. Felix HC, Mays GP, Stewart MK, Cottoms N, Olson M. The Care Span: Medicaid savings resulted when community health workers matched those with needs to home and community care. *Health Aff (Millwood)*. 2011;30(7):1366-74.
417. Fernandes R, Braun KL, Spinner JR, Sturdevant C, Ancheta SJ, Yoshimura SR, et al. Healthy Heart, Healthy Family: a NHLBI/HRSA collaborative employing community health workers to improve heart health. *J Health Care Poor Underserved*. 2012;23(3):988-99.
418. Findley SE, Matos S, Hicks AL, Campbell A, Moore A, Diaz D. Building a consensus on community health workers' scope of practice: lessons from New York. *Am J Public Health*. 2012;102(10):1981-7.
419. Furze G, Cox H, Morton V, Chuang L-H, Lewin RJP, Nelson P, et al. Randomized controlled trial of a lay-facilitated angina management programme. *Journal of Advanced Nursing*. 2012;68(10):2267-79.
420. Gerber BS, Rapacki L, Castillo A, Tilton J, Touchette DR, Mihailescu D, et al. Design of a trial to evaluate the impact of clinical pharmacists and community health promoters working with African-Americans and Latinos with diabetes. *BMC Public Health*. 2012;12:891.
421. Golnick C, Asay E, Provost E, Van Liere D, Bosshart C, Rounds-Riley J, et al. Innovative primary care delivery in rural Alaska: a review of patient encounters seen by community health aides. *International Journal of Circumpolar Health*. 2012;71:10.3402/ijch.v71i0.18543.
422. Harris MJ, Haines A. The potential contribution of community health workers to improving health outcomes in UK primary care. *Journal of the Royal Society of Medicine*. 2012;105(8):330-5.
423. Hunt CW, Grant JS, Appel SJ. An integrative review of community health advisors in type 2 diabetes. *J Community Health*. 2011;36(5):883-93.
424. Johnson D, Saavedra P, Sun E, Stageman A, Grovet D, Alfero C, et al. Community health workers and medicaid managed care in New Mexico. *J Community Health*. 2012;37(3):563-71.
425. Kaunonen M, Hannula L, Tarkka MT. A systematic review of peer support interventions for breastfeeding. *J Clin Nurs*. 2012;21(13-14):1943-54.
426. Keller C, Records K, Ainsworth B, Belyea M, Permana P, Coonrod D, et al. Madres para la Salud: design of a theory-based intervention for postpartum Latinas. *Contemp Clin Trials*. 2011;32(3):418-27.
427. Larkey LK, Herman PM, Roe DJ, Garcia F, Lopez AM, Gonzalez J, et al. A cancer screening intervention for underserved Latina women by lay educators. *Journal of women's health (2002)*. 2012;21(5):557-66.
428. Monaghan PF, Forst LS, Tovar-Aguilar JA, Bryant CA, Israel GD, Galindo-Gonzalez S, et al. Preventing eye injuries among citrus harvesters: the community health worker model. *Am J Public Health*. 2011;101(12):2269-74.
429. Nguyen TU, Tran JH, Kagawa-Singer M, Foo MA. A qualitative assessment of community-based breast health navigation services for Southeast Asian women in Southern California: recommendations for developing a navigator training curriculum. *Am J Public Health*. 2011;101(1):87-93.
430. Paskett ED, McLaughlin JM, Lehman AM, Katz ML, Tatum CM, Oliveri JM. Evaluating the efficacy of lay health advisors for increasing risk-appropriate Pap test screening: a randomized controlled trial among Ohio Appalachian women. *Cancer Epidemiol Biomarkers Prev*. 2011;20(5):835-43.
431. Philis-Tsimikas A, Fortmann A, Lleva-Ocana L, Walker C, Gallo LC. Peer-led diabetes education programs in high-risk Mexican Americans improve glycemic control compared with standard approaches: a Project Dulce promotora randomized trial. *Diabetes Care*. 2011;34(9):1926-31.

432. Riddell MA, Renwick C, Wolfe R, Colgan S, Dunbar J, Hagger V, et al. Cluster randomized controlled trial of a peer support program for people with diabetes: study protocol for the Australasian Peers for Progress study. *BMC Public Health*. 2012;12:843.
433. Roth AM, Holmes AM, Stump TE, Aalsma MC, Ackermann RT, Carney TS, et al. Can lay health workers promote better medical self-management by persons living with HIV? An evaluation of the Positive Choices program. *Patient Educ Couns*. 2012;89(1):184-90.
434. Rothschild SK, Martin MA, Swider SM, Lynas CT, Avery EF, Janssen I, et al. The Mexican-American Trial of Community Health workers (MATCH): design and baseline characteristics of a randomized controlled trial testing a culturally tailored community diabetes self-management intervention. *Contemp Clin Trials*. 2012;33(2):369-77.
435. Ruggiero L, Castillo A, Quinn L, Hochwert M. Translation of the diabetes prevention program's lifestyle intervention: role of community health workers. *Curr Diab Rep*. 2012;12(2):127-37.
436. Ruiz Y, Matos S, Kapadia S, Islam N, Cusack A, Kwong S, et al. Lessons learned from a community-academic initiative: the development of a core competency-based training for community-academic initiative community health workers. *Am J Public Health*. 2012;102(12):2372-9.
437. Singh P. Bringing the concepts of peer coaches and local health workers from Africa to Harlem. *Health Aff (Millwood)*. 2012;31(12):2801-2.
438. Spencer MS, Rosland AM, Kieffer EC, Sinco BR, Valerio M, Palmisano G, et al. Effectiveness of a community health worker intervention among African American and Latino adults with type 2 diabetes: a randomized controlled trial. *Am J Public Health*. 2011;101(12):2253-60.
439. Yuan NP, Castaneda H, Nichter M, Nichter M, Wind S, Carruth L, et al. Lay health influencers: how they tailor brief tobacco cessation interventions. *Health Educ Behav*. 2012;39(5):544-54.
440. General Medical Council. Good practice in research and consent: supplementary guidance. In: Council GM, editor. London 2010.
441. General Medical Council. Consent Guidance: Assessing Capacity London: General Medical Council; [08.05.2015]. Available from: http://www.gmc-uk.org/guidance/ethical_guidance/consent_guidance_accessing_capacity.asp.