Volume I

MENTAL HEALTH AND WELLBEING: THE VIEWS OF PEOPLE WHO ARE DEAF

by

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DEDICATION

I would like to dedicate this thesis to two people who worked hand in hand, yet never met, to get me to where I am today. Firstly, to Samuel Silvester, my grandfather, who was always so proud of me for aiming to become a doctor that he never tired of telling anyone that would listen, despite needing to be constantly reminded that it was in the field of psychology. He always enjoyed listening to me talk of this project and the plight of deaf people, which inspired him to learn the alphabet and other signs from British Sign Language, despite being in his 80's. He would always smile at the thought of being there to witness me receiving my award, but was always doubtful that he would stay with us long enough to see it through. Sadly, he was right. However, he passed this baton onto Martyn Staddon, my partner, who took over where he left off. Despite joining the process at the most critical point, he hit the ground running. Therefore, I would also like to dedicate this thesis to him, for giving up endless weekends together in the pursuit of my doctorate, for taking the reigns when I need to apply myself, for forcing me to continue when it seemed hopeless and drying my tears, so I could carry on. Never doubting that one-day we would get there, together.

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THESIS CONTENTS

Volume I

LITERATURE REVIEW

The Deaf Population: Experiences of Mental Health Services and Factors Associated with Help Seeking Behaviour

RESEARCH PAPER

Mental Health & Wellbeing: The Views of Deaf Children towards Seeking Help for Mental Health Problems

PUBLIC DOMAIN PAPER

Promoting Mental Health and Wellbeing in the Deaf Population

Volume II

CPR 1: PSYCHOLOGICAL MODELS

A Behavioural and a Systemic Formulation of Challenging Behaviour from a Mature Woman with Cerebral Palsy and a Learning Disability Living in a Residential Setting

CPR 2: SERVICE EVALUATION

Staff Training in Basic Autism Awareness: The Impact of Training on Changes in Attributions and Attitudes

CPR 3: CASE STUDY

Cognitive Behavioural Therapy with a Young Man Diagnosed with Autistic Spectrum Disorder Presenting with Generalised Anxiety Disorder

CPR 4: SINGLE CASE EXPERIMENTAL DESIGN

Evaluation of a Multi-Modal Intervention with a Persistently Anxious Older Adult

CPR 5: CASE STUDY ORAL PRESENTATION

Complex Attention Deficit Hyperactivity Disorder (ADHD) Assessment of Adam (11)

TABLE OF CONTENTS

Volume I

The Deaf Population: Experiences of Mental Health Services and Factors Associated with Help Seeking Behaviour

Mental Health & Wellbeing: The Views of Deaf Children towards Seeking Help for Mental Health Problems

Promoting Mental Health and Wellbeing in the Deaf Population

LIST OF ILLUSTRATIONS

LITERATURE REVIEW

The Deaf Population: Experiences of Mental Health Services and Factors Associated with Help Seeking Behaviour

RESEARCH PAPER

Mental Health & Wellbeing: The Views of Deaf Children towards Seeking Help for Mental Health Problems

PUBLIC DOMAIN PAPER

Promoting Mental Health and Wellbeing in the Deaf Population

LIST OF TABLES

LITERATURE REVIEW

The Deaf Population: Experiences of Mental Health Services and Factors Associated with Help Seeking Behaviour

RESEARCH PAPER

Mental Health & Wellbeing: The Views of Deaf Children towards Seeking Help for Mental Health Problems

LIST OF DEFINITIONS & ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorder
AIDS	Acquired Immunodeficiency Syndrome
ANOVA	Analysis of Variance
ANCOVA	Analysis of Co-variance
APA	American Psychological Association
APDSIG	Applied Psychology in Deafness Special Interest Group
ASD	Autism/Autistic Spectrum Disorder
ASL	American Sign Language
ASSIA	Applied Social Sciences Index and Abstracts
Auslan	Australian Sign Language
BA	Bachelor of Arts
BSL	British Sign Language
BSMHD	British Society for Mental Health and Deafness
CAMHS	Child and Adolescent Mental Health Service
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CRIDE	Consortium for Research in Deaf Education
DOH	Department of Health
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HMSO	Her Majesty's Stationery Office
HOH	Hard of Hearing
IAPT	Improving Access to Psychological Therapies
ICD-10	International Classification of Disease – Tenth Edition
ID	Intellectual Disability

MANOVA	Multivariate Analysis of Variance
MEDP	Minority Ethnic Deaf People
MeSH	Medical Subject Headings
MHP	Mental Health Problems
MRSLI	Member of the Register of BSL/English Interpreters
NDCAMHS	National Deaf Child and Adolescent Mental Health Service
NDCS	National Deaf Children's Society
NICE	National Institute for Clinical Excellence
NIMH	National Institute of Mental Health
NVQ	National Vocational Qualification
OE	Outcome Expectancy
ONS	Office of National Statistics
PhD	Doctor of Philosophy
PHSE	Personal, Health and Social Education
PT	Perceived Threat
RNID	Royal National Institute for the Deaf
SE	Self-efficacy
SPSS	Statistical Package for the Social Sciences
SSE	Signed Supported English
TA	Teaching Assistant
TC	Total Communication
TDD	Telecommunication Device for the Deaf
TTY	Teletypewriter
WHO	World Health Organisation

OVERVIEW

The research volume of this thesis presents two papers focusing on the views of deaf people towards mental health services, in order to tailor services towards their needs. A public domain paper summarising the findings of these two papers completes the volume.

The literature review summarised empirical studies that had canvassed the views of deaf people about their experiences of mental health services, as the higher prevalence of mental health problems within the deaf population were not representative of the numbers of people accessing services. Nineteen papers were reviewed, highlighting that communication barriers were ubiquitous throughout all aspects of access. The review highlighted the need to consider and adapt to the individual communication needs of the deaf person, in order to increase utilisation of services. However, barriers faced with conducting research on the deaf population limited the generalisability of these experiences, highlighting the need to continue to gather views from the deaf community as mental health services adapt to their needs.

The research paper gathered the views of 186 deaf children towards mental health services, in order to specifically highlight factors associated with help-seeking behaviour. Within the minority population sampled, of those who attended specialist residential schools for the deaf, there was no overall preference towards hearing status of professionals, mode of communication, or type of service accessed. However, participants were more inclined to seek help if they believed that they would benefit from therapy and were confident enough to overcome any perceived barriers. Using the Health Belief Model to canvas these views was useful, as prevailing opinions were restricted by the paucity of research into this area. However, exploratory research is needed in order to tailor a model suited to the needs of the deaf, so that more accurate views can be gathered.

The clinical volume of this thesis presents five clinical practice reports. The first of these explores a behavioural and a systemic formulation of challenging behaviour from a mature woman with Cerebral Palsy and a Learning Disability living in a residential group home. The second is a service evaluation of training delivered around basic Autism awareness, with the hope of changing the attitudes and attributions care staff had towards the clients they looked after. The third is a case study of a young man diagnosed with an Autism Spectrum Disorder and his engagement with Cognitive Behavioural Therapy in order to alleviate his generalised anxiety disorder. The fourth is a single-case experimental design exploring the impact of a multi-modal intervention on a persistently anxious older adult residing within an inpatient mental health ward, through monitoring medication, anxiety, depression and individualised goals. The final report was an orally presented presentation of an assessment completed with a young man who presented with complex behavioural issues indicative of Attention Deficit Hyperactivity Disorder.

LITERATURE REVIEW

THE DEAF POPULATION: EXPERIENCES OF MENTAL HEALTH SERVICES AND FACTORS ASSOCIATED WITH HELP-SEEKING BEHAVIOUR

Word Count: 6858

ABSTRACT

Aim: Individuals who are deaf have a higher prevalence of mental health problems (MHP's) but are under-represented within mental health services. Communication barriers and social factors perpetuate their segregation from the hearing world and have been reported to result in antiquated views on mental health provision. Despite the emergence of specialist provision, utilisation is still poor. Therefore, this review aimed to explore deaf people's views and experiences of mental health services and highlight factors associated with help-seeking behaviour. **Method:** A systematic literature search was carried out to identify relevant studies. A total of 19 papers were reviewed. Papers were summarised before being critically appraised using a critical framework, suitable for both qualitative and quantitative studies. **Results:** Themes emerging from the review relating to deaf clients' experiences of mental health services covered access to services, experiences of professionals, and communication. Similarly, themes gleaned from the papers regarding factors associated with help-seeking covered integrated specialist services, signing professionals, and alternative forms of communication. **Discussion:** The review highlighted the paucity of literature exploring the views of deaf people towards their experiences of mental health services and the barriers that hinder such research into the deaf population. It highlights the central theme of communication breakdown running through all aspects of service access, but challenges the generalisability of these themes across a vast and varied population. Limitations of the papers being sourced only from the developed western world are also highlighted.

Keywords: Deaf, Mental Health, Experiences, Help-Seeking Behaviour, Literature Review

THE DEAF POPULATION: EXPERIENCES OF MENTAL HEALTH SERVICES AND FACTORS ASSOCIATED WITH HELP-SEEKING BEHAVIOUR.

Deafness

Deafness is the most common human sensory impairment and relates to a diminished ability to hear. It is defined by the smallest frequency of sound detectable, ranging from mild to profound, depending on the severity of the impairment. The World Health Organization (WHO) estimated that approximately 360 million people worldwide had a disabling hearing loss[1] (WHO, 2013). In the UK an estimated 10 million people live with hearing loss, and over 800,000 of those are believed to be severely or profoundly deaf (Action on Hearing Loss, 2011). Various causes and onset of deafness include inherited conditions, intrauterine viral infections, Rubella during pregnancy, complications emerging from severe prematurity, trauma, Meningitis or other infections and ototoxic drugs damaging auditory system. Approximately 50% of cases of childhood deafness occur from birth (Action on Hearing Loss, 2011; Middleton, Emery & Turner, 2010; Morton & Nance, 2006). However, deafness can be acquired throughout adulthood, often referred to as 'Late-deafened', most commonly age-related decline. To communicate, deaf communities developed visual modes of communication (sign language) with their own grammatical structure and syntax, which are progressively becoming recognised worldwide. Consequently, an estimated 70,000 UK adults use British Sign Language (BSL) as their first or preferred language (Thomas, Cromwell & Miller, 2006). Therefore, within deaf population deafness is not necessarily considered a disability as "many people who are born deaf and who communicate mainly through sign language see themselves as part of a distinct community with a common language and cultural heritage" (Department of Health (DOH), 2005). So, when discussing deafness distinctions need to be made between the audiological condition (using a

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[1] *"Disabling hearing loss refers to hearing loss greater than 40dB in the better hearing ear in adults and a hearing loss greater than 30dB in the better hearing ear in children" (WHO, 2013).*

lower-case ‘d’) and the cultural identity of being Deaf (with a capital ‘D’) and part of the Deaf Community[2] (Meadow-Orlans & Erting, 2000; Young, Monteiro & Ridgeway, 2000).

Deafness & Mental Health

Several studies documented high mental health disorder prevalence (e.g., anxiety, depression, phobias, psychoses) in deaf populations across several countries (e.g., Fellinger, Holzinger & Pollard, 2012, Hindley, 2000 & 2005; Hintermair, 2006; Van Gent, Goedhart, Hindley & Treffers, 2007; Vernon, 2006). Many suggested approaching 50% of the deaf population would experience MHP’s within their lifetime (e.g., Fellinger, Holzinger, Sattel, Laucht & Goldberg, 2009); almost double the rate detailed in hearing population research (Office of National Statistics (ONS), 2009). Many contributing factors towards higher prevalence of reported MHP’s throughout the deaf population have been highlighted. Initially, inherited and congenital factors, including Rubella and prematurity may cause changes in brain development and increase vulnerability to MHP’s (Brown, Cohen, Greenwald & Susser, 2000; DOH, 2005; Hindley, 2005; Middleton, Emery & Turner, 2010; Morton & Nance, 2006; Patterson, 2002). Congenital difficulties, trauma and premature birth elevate risk of central nervous system disorders (e.g., cerebral palsy, epilepsy) (Hindley, 2005), which have reported a six-fold increase in risk of MHP’s (Hindley, 2005; Rutter, Graham & Yule, 1970). Similarly, as many deaf people (approximately 30%) have additional neuro-developmental/physical difficulties including Autism Spectrum Disorders (ASD), Attention Deficit Hyperactivity Disorder (ADHD), learning difficulties and visual and motor impairments, their vulnerability to MHP’s could be considered higher (Hindley, 2005) and provide mediating circumstances (i.e., difficulties with learning, concentration, memory, mobility, coordination) reducing wellbeing and increasing distress (DOH, 2005; Hindley, 2005). Considering approximately 95% of deaf people are born into

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[2] *Within the context of this paper the term ‘deaf population’ has been used (instead of ‘Deaf Community’) to encompass all individuals with the audiological condition of deafness and not limited solely to those that subscribe to the cultural identity of being Deaf.*

hearing families (Hindley, 2005; Meadow-Orlans & Erting, 2000; Rawlings & Jensema, 1977), who often lack prior knowledge or experience with deafness (Horne & Pennington, 2010), and are rarely proficient in sign language (Brauer, Braden, Pollard & Hardy-Braz, 1998), then communication is impacted. The resulting cumulative effects on social and emotional development can be devastating (Hindley, 2000; 2005; Horne & Pennington, 2010) as limited interaction causes exclusion from incidental and informal learning situations (Brauer et al., 1998) that aid development of metacognitive skills (understanding of other people's thinking), emotional literacy (limited vocabulary), and consequential thinking (impacting on developing coping strategies) (Gray, Hosie, Russell & Ormel, 2003; Hindley, 2005; National Deaf Children's Society (NDCS), 2003; Remmel, Bettrer & Weinberg, 2003). Subsequently these deficiencies potentially cause relationship problems, social exclusion (Fellinger et al., 2009), reduced self-esteem (Ridgeway, 1997) and reduced educational and employment opportunities (Her Majesty's Stationery Office (HMSO), 2004), which all impact mental health and wellbeing.

Deafness & Mental Health Services

Historically, figures suggested that between 2-10% of deaf individuals requiring mental health services actually received them (Appleford, 2003; Pollard, 1993; Steinberg, 1991; Vernon, 1983), but why? Until recently, in Britain there were very few deaf-specific services and these were nationally disparate, making it impossible for services to be comprehensive or easily accessible (DOH, 2002). Therefore, many deaf individuals needing to access mental health services used mainstream services. Significant structural barriers, including lack of interpreters and mental health professionals knowing sign language, were suggested as access impairments (Vernon, 2006). Despite generic services adopting induction loop facilities, other technologies, such as Text-Relay systems were lacking (Edmond, 2010). Consequently, deaf people appeared to access services later, resulting in more severe MHP's, often requiring hospitalisation. As this was done in wards alongside the general population, with little access to communication support

(Vernon & Daigle-King, 1999), misdiagnoses and “anti-therapeutic custodial isolation” resulted in longer hospital stays (Vernon, 2006). Accordingly, deaf people often sought help from respected members of the community (e.g., knowledgeable friends), with no formal qualifications or training in supporting people with MHP’s (Steinberg, Sullivan & Loew, 1998). Therefore, in a consultation document ‘A Sign of the Times’ (DOH, 2002), provision and organisation of mental health services for Deaf people was recognised as being far from adequate.

More recently specialist deaf services are becoming nationalised, with adult services providing inpatient, outpatient, community and crisis intervention services throughout England and in-reach into Wales, alongside specialist child and adolescent provision. Despite this deaf people still lack access to Improving Access to Psychological Therapies (IAPT) Services or primary care counselling nationwide (The Lancet, 2012). Even getting MHP’s identified by a GP is restricted, with under 20% using interpreters when appropriate (Royal National Institute for the Deaf; RNID, 2004) and many structural barriers still existing (Fellinger, Holzinger, & Pollard, 2012). Therefore, “Deaf people have long been denied the services they need” (The Lancet, 2012). Similar concerns have been noted in other countries with some, such as America, developing specialist services and improving access to generic services (Vernon, 2006). Therefore, exploring both the generic and specialist mental health service experiences of deaf people is crucial to understanding what prevents or facilitates access and successful use.

Aim

Given the prevalence of mental health difficulties within the deaf population and the access restrictions noted, this review aims to explore literature concerning deaf population mental health service experiences, when they personally seek help for MHP’s. Additionally, this review attempts to identify factors associated with help-seeking behaviour. To the author’s knowledge, this is the first systematic review of its kind.

METHOD

Search Strategy

Databases and Search Terms

Databases associated with psychology, counselling and the health sciences were utilised for this review. PsychINFO, Embase, Embase Classic, Ovid MEDLINE(R) and Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations databases were searched from creation to November 2012. Selected search terms were mapped onto appropriate Medical Subject Headings (MeSH[3]) employed by the databases. Related MeSH terms were explored and included, if relevant, which incorporated MeSH terms that differed between databases. Once an exhaustive list of MeSH terms was compiled, contribution towards the search was assessed for each term. MeSH terms that diluted the sample, but only contributed relevant papers already captured by more specific terms were discarded. Examination of papers for previously unconsidered MeSH terms took place, with these then considered for inclusion or exclusion (Table 1).

Table 1: *Summary of MeSH search terms and their origins.*

Included	Discarded
<u>Deafness</u> ➢ Deaf ➢ Deafness[b] ➢ Hearing Impairment[a] ➢ Partially Hearing Impaired	➢ Hearing Disorders ➢ Communication Disorders ➢ Sign Language[c] ➢ Sensorineural Hearing Loss ➢ Cochlear Implants
<u>Service Access</u> ➢ Help Seeking Behaviour ➢ Healthcare Seeking Behaviour ➢ Healthcare Utilisation ➢ Health Behaviour ➢ Patient Acceptance of Healthcare[b] ➢ Health Service Needs ➢ Healthcare Access[c] ➢ Utilisation Review[c] ➢ Needs Assessment ➢ Treatment ➢ Psychotherapy ➢ Therapy[a]	➢ Healthcare Delivery[a] ➢ Motivation ➢ Illness Behaviour ➢ Coping Behaviour ➢ Health Promotion ➢ Self Referral ➢ Patient Referral[a] ➢ Referral and Consultation[b] ➢ Treatment Compliance ➢ Patient Compliance[a] ➢ Healthcare Need[a] ➢ Psychological Needs ➢ Psychological Assessment

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[3] *The National Library of Medicine's dedicated set of headings used to index journal articles.*

➢ Counselling ➢ Crisis Intervention ➢ Mental Health Services ➢ Community Mental Health Services ➢ Mental Health Care[a]	➢ Psychiatric Evaluation ➢ Psychological and Psychiatric Procedures[a] ➢ Psychiatric Treatment[a] ➢ Early Intervention ➢ Prevention ➢ Relapse Prevention ➢ Primary Mental Health Prevention
<u>Knowledge, Attitude and Experiences</u> ➢ Experience[a] ➢ Therapeutic Processes ➢ Psychotherapeutic Processes ➢ Doctor-Patient Relation[a] ➢ Communication Barriers[c] ➢ Treatment Barriers ➢ Health Services Accessibility[b] ➢ Client Attitudes ➢ Health Personnel Attitudes ➢ Therapist Attitudes[c] ➢ Health Attitudes ➢ Mental Illness (Attitudes Toward) ➢ Health Personnel Attitude[c] ➢ Patient Attitude[a] ➢ Attitude to Health[a] ➢ Patient Satisfaction[c] ➢ Prejudice ➢ Stigma ➢ Stereotyping[a] ➢ Social Discrimination ➢ Cross Cultural Differences ➢ Cultural Factor[a] ➢ Culture[b]	➢ Experiences (Events) ➢ Health Literacy ➢ Health Knowledge ➢ Health Education ➢ Health Belief[a] ➢ Attribution ➢ Cognition ➢ Schema ➢ Perception ➢ Social Perception ➢ Attitudes ➢ Consumer Attitudes ➢ Counsellor Attitudes ➢ Psychologist Attitudes ➢ Psychotherapist Attitudes ➢ Stereotyped Attitudes ➢ Attitude[a] ➢ Consumer Attitude[a] ➢ Physician Attitude[c] ➢ Psychotherapist Attitude[a] ➢ Attitude to Illness[a] ➢ Attitude to Mental Illness[a] ➢ Patient Preference[a] ➢ Social Stigma[b] ➢ Discrimination ➢ Sociocultural Factors

[a]MeSH terms differentiated in Embase and Embase Classic. [b]MeSH terms differentiated in Ovid MEDLINE(R) and Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations. [c]MeSH terms identified from pertinent papers.

A Boolean search of Cumulative Index to Nursing and Allied Health Literature (CINAHL) Plus, ProQuest – Applied Social Sciences Index and Abstracts (ASSIA) and Web of Science databases was conducted using the included MeSH search terms. Similarly, a request was made to the Applied Psychology in Deafness Special Interest Group (APDSIG), to help identify papers not already captured. However, all APDSIG recommended articles had already been identified within the database searches. All identified papers (535) were exported to reference management software and duplicate papers removed (42). The database details and abstracts of the remaining (493) were examined and filtered according to the following criteria. Papers having missing or ambiguous abstracts were sourced and examined fully.

Inclusion & Exclusion Criteria

Articles were included or excluded according to the following criteria (Table 2):

Table 2: *Inclusion & Exclusion Criteria*

Inclusion Criteria	Exclusion Criteria
Empirical studies, including single-case studies	Non-empirical papers (i.e., opinion papers, book chapters, seminar summaries, dissertation abstracts, article commentaries or literature reviews)
Related to congenital, pre-natal or early-onset acquired deafness	Related to age-related hearing impairment or decline or concerned multiple sensory impairments (e.g., deaf-blind)
Concerned MHP's as primary issue, not related to diagnosis or treatment of deafness or other physical/medical issue	Concerned medical or therapeutic treatment around alleviating deafness (i.e., hearing aids, cochlea implants, tinnitus, conversion disorder or psychogenic hearing loss[4], genetic testing or counselling, family therapy following diagnosis), looked at support around medical issues (i.e., cancer, HIV/AIDS), involved access to physical health or social care and substance misuse treatment programmes
Specifically related to accessing mental health services for support	Covered school or community based educational programmes around MHP's and domestic violence for the deaf or services promoting empowerment and independent living
Considered service users experiences or perspectives on access to services and factors which may influence help-seeking behaviour	Considered professional perspectives around serving deaf clients or adapting or evaluating treatment programmes or therapeutic techniques for deaf people, mental health prevalence and demographics data of patients, understanding of legal rights and use of videoconferencing
Could be sourced in English	Could not be sourced as a full-text article in English

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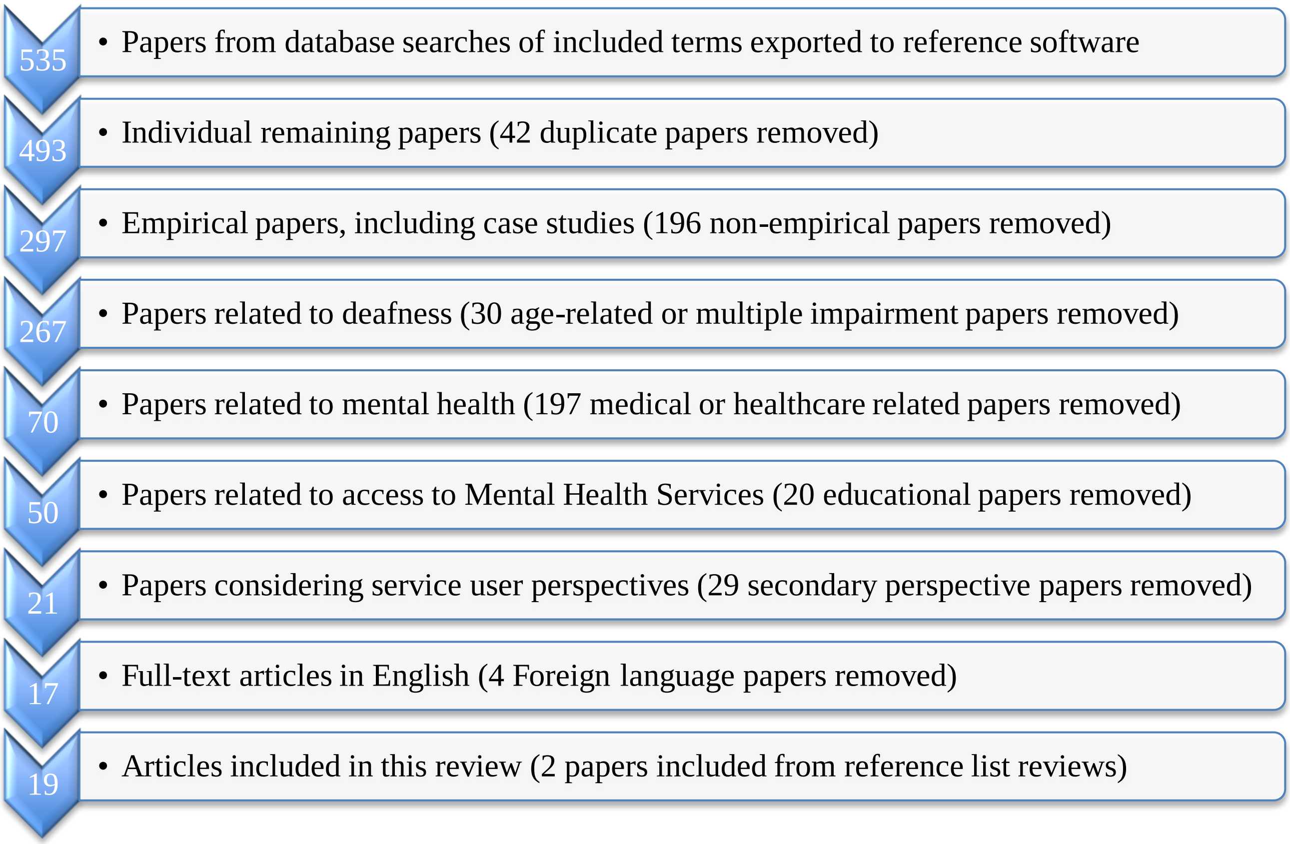
[4] *Conversion disorder or psychogenic hearing loss refers to an audiological impairment or deafness in the absence of any physiological rationale, often being associated with underlying MHP's or malingering for financial or alternative gain.*

Data Extraction

Of the remaining papers (493), all non-empirical papers (196) were excluded, specifically: opinion papers (175), book chapters (9), seminar summaries (3), dissertation abstracts (2), book or article reviews (5) and literature reviews (2). This left empirical papers and case studies (297). As this review was deaf population focussed, articles based around age-related decline were removed (25), alongside those concerning multiple sensory impairments (5). Therefore, only papers relating to lifetime deafness alone (267) were reviewed for reference to MHP's being the key concern, with irrelevant papers (197) excluded. Papers related to treatment around alleviating deafness (143) were discarded (i.e., hearing aids, cochlea implants, tinnitus, conversion disorder, psychogenic hearing loss), alongside those concerning support for medical issue (17). Papers covering access to healthcare (12) and social services (2) were also removed. Although papers regarding genetic testing or counselling (13) and family therapy around a deafness diagnosis (8) were found, these were excluded, as they were considered unrelated to help-seeking around MHP's. Papers relating to substance misuse treatment (2) were also excluded as it was felt that current opinion views addiction services as separate from mental health, diagnoses as separate according to the ICD-10 (WHO, 1992) and DSM-IV-TR (American Psychiatric Association, 2000) and treatment of substance misuse and addictions as public health issues (e.g., smoking cessation and binge drinking) or complex issues co-morbid with MHP's (dual-diagnosis).

The remaining papers relating to MHP's and deafness (70) were reviewed and those pertaining to access to psychological services were retained (50). Those removed detailed educational programmes around MHP's and domestic violence (13), with others concerning issues relating to living with deafness, including independence, identity and sexuality (7). As this review aimed to specifically evaluate the views and experiences of deaf individuals themselves towards seeking psychological help for MHP's, then sources not detailing this were discarded (29). This included papers solely depicting demographic or prevalence data of those accessing services (5), concerned with adapting psychological measures (5) or evaluating treatments (8) and one surveying legal rights across a range of hospital wards. Similarly, papers surveying professionals' views on providing a service to deaf people were removed (8). Lastly, papers were removed relating to using videoconferencing in promoting access to services (2), as they did not directly relate to the mental health experiences of those involved.

The remaining papers (21) were sourced, with those unavailable in English (4) being discarded. This left seventeen papers for inclusion within this review. The included papers' reference lists were hand-searched and forward citation used to locate any papers not already captured by prior searches. From this, two further papers were incorporated into the selection, totalling nineteen papers for the final review.



535	• Papers from database searches of included terms exported to reference software
493	• Individual remaining papers (42 duplicate papers removed)
297	• Empirical papers, including case studies (196 non-empirical papers removed)
267	• Papers related to deafness (30 age-related or multiple impairment papers removed)
70	• Papers related to mental health (197 medical or healthcare related papers removed)
50	• Papers related to access to Mental Health Services (20 educational papers removed)
21	• Papers considering service user perspectives (29 secondary perspective papers removed)
17	• Full-text articles in English (4 Foreign language papers removed)
19	• Articles included in this review (2 papers included from reference list reviews)

Figure 1: Filter Summary of Included and Excluded Papers

For included papers, the following data were extracted: author, publication year, publication country, methodology used and study design, sample size and participant demographics, data analysis, findings, and limitations (Table 3).

Summary of Included Papers

Of the papers, twelve had been published since 2000, with the oldest being from 1982. Despite systematic searches and attempts to acquire English translated papers from non-English speaking countries, most included papers originated from the English-speaking western world: USA (10 papers), UK (4), Canada (2), Australia (2) and Belgium (1). Given the aim of this review and scope of the inclusion criteria, most papers provided direct consumers' perspectives on mental health services experiences or requirement (13 papers). The remainder (6 papers) incorporated deaf people's mental health experiences drawn from referral, medical and legal documentation.

Included papers incorporated qualitative (7 papers) and quantitative (11 papers) methodologies, with one incorporating a mixed-methods design. Sixteen papers were cross-sectional in design, and three incorporated case-controls, with findings compared against hearing groups. Two single-case studies were included, alongside two studies utilising a repeated-measures design. Despite these considering views of over one thousand deaf individuals and 120 services, due to the population's nature, most studies were limited to small numbers of participants (*Mdn*=26, *IQR*=11-77), with only three exceeding one hundred participants. Participant data was collated through questionnaires (10 papers), interviews (6 papers), focus groups (3 papers) and medical or legal record reviews (5 papers), with some studies utilising multiple methods. Qualitative studies used thematic analysis (4 papers), constant comparative (also known as Grounded Theory) and content analysis (1 paper each) alongside data self-selection. Quantitative studies provided descriptive data (7) and inferential statistical analyses (5), incorporating the mixed method design within both.

Studies with gender information (14 papers) incorporated both men and women, excluding three papers (including two single-case studies) focussed on females. Three papers were biased, one towards males and two towards females. Across papers including age data (12 papers), these were diverse, spanning ages 7-89. However, three papers biased towards younger participants (students), two papers solely looked at the views of children, and one the older adult view. In ethnicity terms, four out of five papers indicated a high Caucasian proportion (73-83%) and only one paper specifically considered minority ethnic deaf people (MEDP) experiences. Although deafness was ill defined in many papers, most referred to pre-lingual or profoundly deaf and hard of hearing (HOH) populations, who tend to communicate using sign language (specifically indicated in 9 papers). However, some papers specifically targeted the 'Deaf Community', or employed an Axis III[5] deafness diagnosis. Moreover, some papers included late-deafened participants (during adulthood) or progressive deafness (specifically the two single-case studies). Only one of the nineteen included papers was explicitly authored by a deaf individual, with no others indicating representation from the deaf population in study design or conduct. Consequently many papers acknowledge difficulties accessing the deaf population (as hearing professionals), resulting in a bias across studies towards recruiting more educated participants (5 papers) or individuals highly sociable and present within community support groups (4 papers).

Most included papers were contemporary, western-based and directly canvassed a large cross-section of consumer views, covering both genders, but being slightly biased towards Caucasians. Varied hearing statuses were also incorporated, with good representation from sign language users, however those highly educated and engaged within the Deaf Community were over-represented. Studies equally incorporated qualitative and quantitative methodologies, spanning different data collection tools and analysis modes.

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[5] *Axis III is part of a five-level multi-axial system for assessment of psychiatric disorders containing information about general medical conditions influencing diagnosis and treatment*

Table 3: *Summary of Included Papers (Grouped as Qualitative then Quantitative Papers, with Analogue Studies Presented Last)*

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Boyd, J. (2007). Counselling with a profoundly deaf client and the impact of a therapist's dream: A case study	UK - Hertford shire	Qualitative - Single case study of a female referred by GP to medical centre following trauma around surgery	56 year old, profoundly deaf (late-deafened at 40 through meningitis) female, who used self-taught lip-reading skills	Process notes from time-limited Person-Centred Jungian counselling, supervision records, semi-structured questionnaire and research interview following therapy	Self-selection of pertinent issues	Feelings of inferiority and shame, expectation of being instructed, seen as mentally ‘retarded’, defensive, blamed for poor communication, expectation of rejection and humiliation. Limited understanding, support intensified by time limits	Single client perspective sometimes indistinguishable from providers, late-deafened so limited in generalising this to deaf population
DeVinney, J., & Murphy, S. (2002). Mental health experiences and deafness: Personal and legal perspectives	USA – Maine	Qualitative - Single self-reported case study of a woman voluntarily admitted to a psychiatric unit	40 year old female, progressive childhood deafness (profoundly deaf a few years earlier) with history of depression	Individual's personal narrative, legal depositions and the provisions of the consent decree from individual's lawsuit	Self-selection of issues combined with most heavily emphasised items within the consent decree	Most prominent barriers included qualified interpreters, staff knowledge and sensitivity, telecommunication availability and patient participation	Single case experience, more active in the community than other members
Briffa, D. (1999). Deaf and mentally ill: Are their needs being met?	Australia - Brisbane South	Qualitative – Cross-sectional exploratory survey of clients over previous year accessing psychiatric clinics within three hospitals	11 pre-lingual or congenitally deaf people, with first language Auslan, no ID 11 Staff 4 Interpreters	Taped and transcribed 30 min semi-structured interviews of deaf clients/staff and follow-up focus group of deaf clients through interpreters, and a questionnaire from interpreters	Content analysis to develop themes and focus group to validate	Not given enough information, poor communication methods, little access to resources that assist communication, little knowledge of deaf culture or language issues	Client perspective indistinguishable within mixed provider-client perspective, limited description of sample and data collected

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Munro, L., Knox, M., & Lowe, R. (2008). Exploring the potential of constructionist therapy: Deaf clients, hearing therapists and a reflecting team	Australia - Queensland	Qualitative – Semi-structured interviews concerning experiences of constructionist therapy with professional counsellors, fully qualified professional interpreter and an all hearing reflecting team in university teaching clinic	2 female patients (35-45 years old) having completed more than 3 1hr sessions (7 & 9 sessions) and having consented to be interviewed (from 11 referrals and 6 invitations to participate)	The counselling experience, views on the process of appointments, the reflecting team and feelings of safety explored in 1hr video-recorded interviews with an independent practitioner experienced in working with deaf clients within the service and a qualified interpreter	Constant comparative (Grounded Theory) analysis of transcribed video recordings of interviews from English discussion between interviewer/ interpreter by first author, conversant in Auslan	Positive experience in comparison, help with clarifying understanding, listened to, adjustments being made and not being made to feel stupid or blamed, used range of approaches to facilitate communication, still concerns raised about confidentiality, issues around arranging and cancelling appointments, consistent interpreters, understanding deaf culture, making them isolated from accessing services/ information	Biased views as needed to have attended three sessions before invited for interview, therefore opted-out views not included, all female participants, no demographic information on deafness or ethnicity and limited theory grounded discussion
Steinberg, A.G., Sullivan, V.J., & Loew, R.C. (1998). Cultural and linguistic barriers to mental health service access: The deaf consumer's perspective	USA – Eastern Pennsylvania	Qualitative – Cross-sectional survey of adults from the Deaf Population in Eastern Pennsylvania, New Jersey and Delaware in '95/'95 who use ASL	54 (57% female, 82% Caucasian) deaf (91%) or HOH (9%) (80% before 6 years old), adults (18-78 years old) who use ASL and could give written consent	English transcripts of individual and group semi-structured ASL interviews utilising 89 questions covering demographic variables, family background, and knowledge, attitudes and beliefs about MHP's and services	Thematic analysis of transcriptions utilising Folio VIEWS software (Folio Corp, 1995)	Mistrust of providers, communication difficulty as a primary cause of MHP's, profound concern with communication in therapy and widespread ignorance about accessing services	Qualitative research presented quantitatively, post-secondary education being over-represented (43%), attendance at deaf population events required, written consent required

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Rodda, M., & Eleweke, C.J. (2002). Providing accessible services to minority ethnic deaf people: Insights from a study in Alberta, Canada	Canada – Alberta	Qualitative – Cross-sectional postal survey and focus-groups of organisations involved in the provision of services to deaf people across the province in ‘00	15 minority ethnic deaf people (MEDP), professionals and providers of services for the deaf involved in one focus group many with minority background	Information about projects or initiatives set up for MEDP via postal survey and the content of a focus group on obstacles, needs, current availability, quality, satisfaction and future requirements around services	Thematic analysis of focus group content	Communication barriers, lack of assistive technology, interpreters, lack of cultural understanding	Focus on services overall, not sure how much is staff perspective, limited description on participants, how focus group data gathered, translated or analysed, queried involvement of interpreters
Ferguson, D., Lowndes, A., McDonald, W., Edmond, F., & Tolson, D. (2009). Scottish Mental Health Services: the Experience of Deaf and Deafblind People	UK – Scotland	Qualitative – Purposive sampling of a cross-section of deaf people linked to two different health boards across Scotland in 2007	4 (equal M/F) deaf people, who use manual communication and were in contact with mental health services within the prior 24 months (3 inpatient, all outpatient)	Verbatim transcripts of digital audio recording of 1-2hr semi-structure interviews, supported by an interpreter and confirmed by field notes, followed by member checking, whereby the content of the transcript is confirmed by the interviewee	Framework Analysis (Ritchie & Spencer, 1994), which is thematic analysis but incorporates themes from literature as well as interview content	Lack of access to information about care and rights, interpreters, intense feelings of isolation, feeling powerless and dominated, poor communication, reliance on family, excluded from decision making, lack of cultural awareness, unable to form therapeutic relationship, specialist care notable for access to signing professionals	Limited response rate and thus limited participant demographics, limiting generalizability

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Greco, V., Beresford, B. & Sutherland, H. (2009). Deaf Children and Young People's Experiences of Using Specialist Mental Health Services	England – York & Midlands	Qualitative & Quantitative – Cross sectional, repeated measures survey of individuals accessing the specialist NDCAMHS across York and Midlands	20 'Main Sample' (60% male) deaf (50% using BSL) children (7-16 years old, *M*=12.2) and 4 (50% male) 'Telelink' deaf (all BSL users) children (15-16 years old), out of six using this service	30-minute interviews regarding beliefs about using service and experience, plus repeated (4-9 months apart) card sort exercise around desired outcomes and goal achievements, alongside Experience of Service Questionnaire (amended)	Thematic analysis of video, audio or written recordings from interviews transcribed into English/BSL gloss and frequency data from questionnaire	Positive views towards service and clinician - helpful, supportive, mostly involving and knowledgeable about deaf children, especially deaf clinician, able to open up without feeling embarrassed. Still communication issues but appreciated signing clinicians, especially fluidly with native deaf signer and use of interpreters/telelink. Concerns-confidentiality	Small sample, no deafness or ethnicity data recorded, limited data collected, no comparison, unlikely to be generalised as no comparison to wider group or details of representation to service population
Feldman, D.M., & Gum, A. (2007). Multigenerational perceptions of mental health services among deaf adults in Florida	USA – Orlando, Florida	Quantitative - Cross-sectional survey of deaf adults who used ASL, attending 2005 conference - Florida Association of the Deaf	173 (57% female, 83% white) deaf, HOH or late-deafened adults (20-85 years old) who use ASL	Perspectives related to availability of mental health services, preferences and current utilisation from a 23-item written questionnaire	Chi-squared analysis between age groups; young adult (18-34), middle adult (35-54), older adult (55-65) and oldest (66+)	90% agreement on lack of specialist services, older groups less aware of what available. Older groups preferred to seek help from friends/family, younger groups preferred professionals. Regarding professionals, no preference for age, sex or hearing status, but overwhelming preference for signing professional, younger groups more tolerant of an interpreter	Limited literature, higher than average level of higher education (47% bachelors, 13% masters, 2% doctoral degree), not surprising given that participants had to complete a written questionnaire!

Article	**Country**	**Methodology**	**Participants**	**Data**	**Analysis**	**Results / Themes**	**Limitations**
Feldman, D.M., & Kearns, W.D. (2007). The mental health needs and perspectives of culturally deaf older adults living in two counties in Florida	USA – Florida	Quantitative – Cross sectional survey of deaf older adults attending associations for the deaf meetings in Broward County and Palm Beach County, Florida	77 (64% female) older adults (55-89 years old), culturally deaf (ASL users)	18 questions covering demographic information, knowledge of current services and preference for future services	Demographics and knowledge of services compared through descriptive data and factor analysis for future preferences	43% felt they were aware of available services and knew how to access them, but only 13% felt they were adequate, 95% wanted more services with 61% requesting more counselling services, however 78% showed preference for deaf specialist services to be separate from hearing services	Responses limited to yes/no responses and already designated list of future preferences, bias towards people more prominent in community
Landsberger, S. A., & Diaz, D. R. (2010). Inpatient psychiatric treatment of deaf adults: demographic and diagnostic comparisons with hearing inpatients	USA - Indianapolis	Quantitative – Cross-sectional case-control survey of archival data of clients committed by the court for psychiatric treatment and admitted to a psychiatric hospital between Jan ’98 – Nov ‘08	30 (53% male, 73% white) deaf (bilateral deafness or severe HOH, 67% pure ASL users) clients (*M*=30.6years, *SD*=14.8) compared to 60 (47% male, 63% white) hearing clients (*M*=36.9years, *SD*=13.3)	Axis I and II psychiatric diagnoses alongside axis III coding for hearing impairment and other demographic data recorded for all patients admitted to a psychiatric unit for mixed hearing and deaf patients with access to full-time ASL interpreters	Descriptive and inferential statistics (two-way contingency tables & t-tests) comparing group features	None of the diagnosing psychiatrists fluent in ASL or specialised in MHP’s for the deaf. Significantly higher prevalence of impulse control disorder, mild mental retardation and pervasive developmental disorder and lower prevalence of substance misuse and personality disorder diagnoses. Hospital stay significantly longer for deaf patients	Retrospective data limits controllability of variables, use of Axis III deafness identification, small sample not comparable in ethnicity limits generalizability, and use of ASL interpreters in forming diagnoses unknown

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Cole, P., & Magis, C. (2011). "The Case of The Beau-Vallon": Mental Illnesses of Deaf People to the Psychiatric Hospital	Belgium – Namur	Quantitative - Cross-sectional, case-control survey of deaf adults who were inpatients in a psychiatric hospital between 2000-2009	26 (95% female) deaf (identified as deafness present on Axis III of health records) inpatients compared to hearing patients accessing hospital in 2008	Diagnostic information from multiaxial classification codes from DSM-IV-TR on the Minimum Psychiatric Summary (compulsory health record in Belgium)	Graphical representation of diagnoses given to deaf inpatients compared to comparable sample (Mann-Whitney Test) of hearing inpatients	No physician had knowledge of sign language or specific training on special aspects of deafness. Unspecialised teams bias in diagnosing, over-representation with psychotic disorders, anxious disorders and mental retardation, sub-representation of personality disorders and no bipolar disorders	Limited sample size, reliant on Axis III information, which must be connected to mental health disorder (only 26 patients in 10 years!), no demographics, inferential results
Pyke, J.M., & Littmann, S.K. (1982). A psychiatric clinic for the deaf	Canada – Toronto	Quantitative - Cross-sectional, case-control survey of deaf adults attending a psychiatric clinic between 1977-1980	26 (70% male) deaf (77% profound, 92% pre-lingual) adults (16-55 years old, majority <35 years old) versus 28 (69% female) hearing controls (16-55+ years old, 50% <25 years old)	Demographics, degree of hearing loss, etiology, age of onset, principal language spoken at home, preferred communication, referral source, primary diagnosis and disposition from clinic charts	Graphical representations of descriptive data with percentage comparisons	Staff none or little training in manual communication, interpreters used with consent. Persistent communication dissonance, isolation and barriers to intimacy seen in reasons for referral. Majority (70%) male. Referrals mainly from community agency (46%) with 27% coming from GP, but all with major mental illness. Higher prevalence of psychosis and secondary mental retardation	Provider perspective, tertiary information, dated, gender biased in both groups, younger audience, potential confusion with results and limited conclusions to be drawn

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Iqbal, Z., & Hall, R. (1991). Mental health services for deaf people: a need identified	UK - Wales	Quantitative – Cross sectional survey of facilities available to deaf people accessing 3,885 long-stay (>6m) mental health beds across Wales in December ‘89	29/39 (74.4% response) hospitals responded, identifying 454 deaf (28 prelingual, 86 post-lingual, 340 HOH) inpatients across 3,019 beds (77.7% overall sample)	Prevalence of deaf inpatients within long-stay psychiatric, long-stay mental handicap and elderly mental infirm beds and services available to them (support services – audiology/therapists, communication aides - subtitles/ TTY)	Descriptive data detailing prevalence according to setting and deafness and graphical representations of service availability according to deafness from questionnaire	High prevalence of inpatients with pre-lingual deafness found in long-stay psychiatric hospitals and higher still in long-stay mental handicap units. High prevalence of profound post-lingual inpatients found across all settings. Extremely poor facilities across many hospitals, lacking specialist support and little access to aides supporting engagement	Limited to inpatients, no comparison, access does not equal use and estimated deafness! Brief descriptive data, including HoH in elderly mental infirm beds, which could be age related deafness
McEntee, M.K. (1993). Accessibility of mental health services and crisis intervention to the deaf	USA - Rhode Island	Quantitative - Cross-sectional survey of 47 crisis intervention, emergency and therapeutic services in Rhode Island	28 consenting services (86% non-profit, 25% private, 54% state-wide, 61% served over 1,000 px/yr)	Demographics, contact with deaf population (referrals, caseloads) and accessibility issues from a 15-item questionnaire	Descriptive data presented in percentages	72% of services had served deaf clients, but only 39% were accessible via TDD (with little training) and 61% provided interpreters (25% certified). No state relay service available. 29% flatly inaccessible	Provider perspective, tertiary information, dated and biased understanding of needs of population

Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Munro-Ludders, B., Simpatico, T., & Zvetina, D. (2004). Making public mental-health services accessible to deaf consumers: Illinois Deaf Services 2000	USA – Illinois	Quantitative – Repeated measures survey of the accessibility of mental health services to deaf people across Illinois' nine regional mental health networks	64 community mental health agencies out of 131 available	Compliance to standards, including availability of TTY, accessible service information, training in deaf culture/ASL, use of TTY's, hiring and working with interpreters, clinical interventions, interpreter policies, availability of resources and contact information for a 'deaf expert'	Comparable frequency percentages on each standard	Baseline data suggested majority of services unable to give accessible or appropriate care. Despite accessible equipment (TTY), few knew how to use it, little understanding on how to secure or work with an interpreter and frequent requests regarding training around MHP's/ deafness. Improvements were noted at follow-up alongside a 60% increase in deaf consumers	Only half services available surveyed, no demographic information about services provided, availability and training does not imply application
Feldman, D., Kluwin, T.N., & McCrone, W.P. (2005). Deaf clients' perceptions of counseling expertise as a function of counselors' signing skill, gender, and therapy type	USA – Washington	Quantitative - Cross-sectional randomised, incomplete experimental design survey of college students attending professional preparation courses at a college for the deaf	20 (equal M/F, 75% white) deaf/Deaf (80%) or HOH (20%) college students (18-43 years old, Av 26) completing Careers in Counselling & Introduction to Educational Psychology courses	Counsellor Rating Form - Short Form (CRF-S) responses on four per participant randomised (of 16) mock counselling video clips showing variations of signing skill (manual English v native ASL), gender of therapist, gender of client and therapy type (Rogerian v Rationalist)	One quarter fractional factorial design (Kirk, 1968) on two-way interactions with 2x2x2x2 repeated measures ANOVA	No effect for gender of counsellor, the match of the gender to the client or the mode of communication, but some scope for type of therapy with preference for reality therapy over person centred approach.	Potential professional rather than personal perspective, limited sample given complexity and not generalizable to deaf population

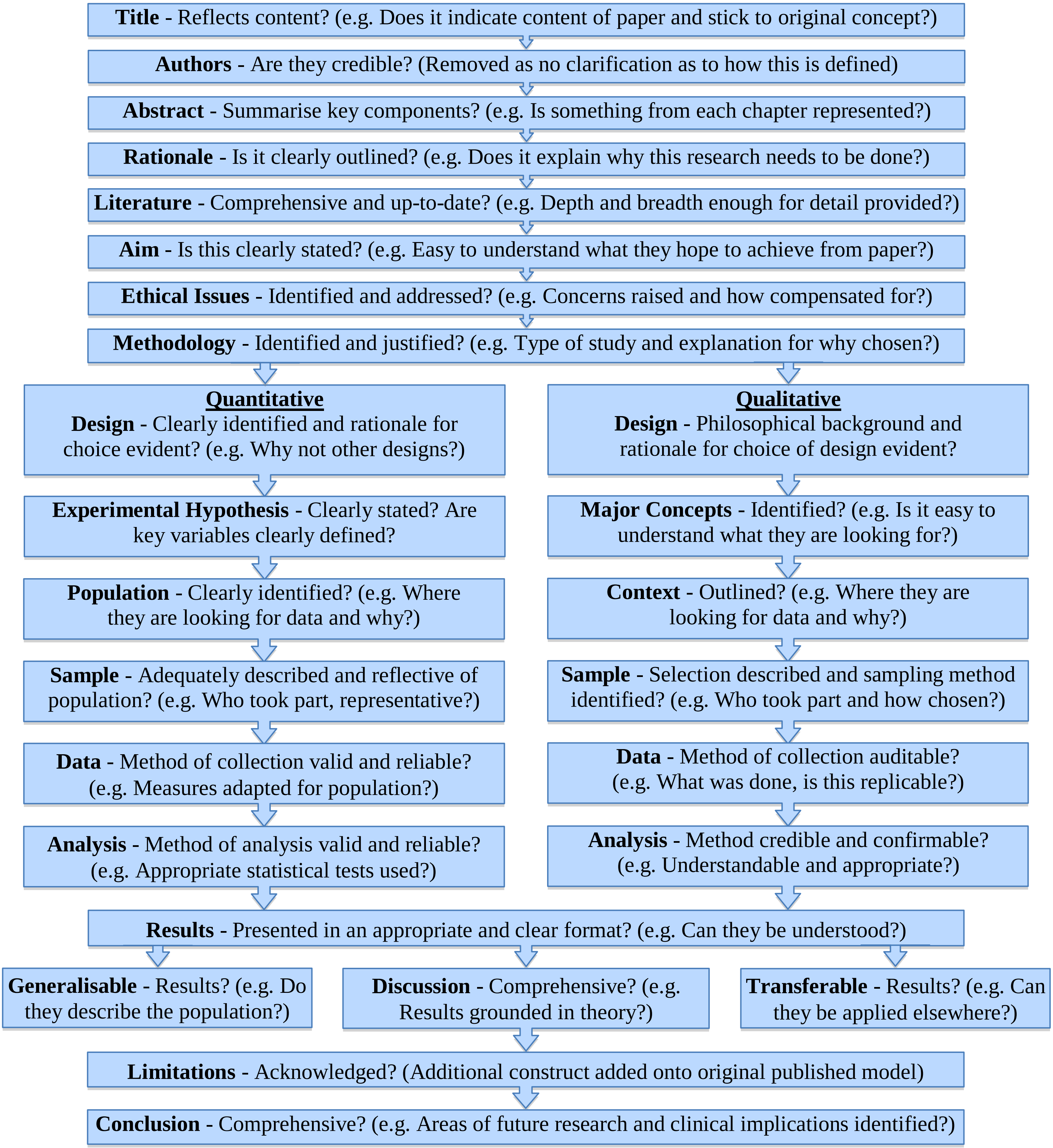
Article	Country	Methodology	Participants	Data	Analysis	Results / Themes	Limitations
Freeman, S.T., & Conoley, C.W. (1986). Training, experience, and similarity as factors of influence in preferences of deaf students for counselors	USA – Texas	Quantitative – Cross sectional paid-volunteer survey of deaf students from Gallaudet University (college for hearing impaired students)	96 (57% female) hearing impaired (*M*=88.43db, *SD*=19.50) students (16-37 years old, *M*=21.98, *SD*=3.29)	Rated 12 Pidgin-signed descriptions of androgynous counsellor varying in similarity (Deaf-ASL/Hearing-ASL/ Hearing-interpreter), training (BA/PhD) and experience (New/5years) on 10-item Counsellor Rating Form and a Willingness to see the counsellor scale	Two 3x2x2 ANOVA's on dependent variables of assessment of counsellor and willingness to see the counsellor	Significant main effect of similarity on both CRS and Willingness to see a Counsellor scale with preference for signing counsellor regardless of hearing. Significant interaction between similarity and experience with competency and willingness increasing with experience, except when using and interpreter	Analogue - study intentions, not behaviour, not included deaf-interpreter, higher than average level of education in group as university students, no detail on how descriptions assigned
Haley, T.J., & Dowd, E.T. (1988). Responses of Deaf Adolescents to Differences in Counsellor Method of Communication and Disability Status	USA – Nebraska	Quantitative – Cross-sectional, stratified, randomised, experimental design survey of high school students	106 (equal male/female) deaf students (14-19 years old) from three state schools for the deaf (Grade 9-12)	Rating on CRF-S, Barrett-Lennard Relationship Inventory (BLRI) and Counselor Effectiveness Rating Scale (CERS) of 1/6 video recordings of two counsellors delivering sessions varying in hearing status (deaf/ hearing) and communication method (sign/ interpreter/written). Pre/Post willingness to see a Counsellor	2x3x2 (counsellor/ communication/ hearing status) MANOVA for CRF-S, BLRI, CERS. ANCOVA on Willingness to see counsellor (pre-test as covariate). Appropriate follow-up univariate tests	No significant main effects for counsellor or hearing, but was for communication method. Significantly better perception of counsellor who signs over writing, but not between signer and interpreter. Willingness not sig. different across methods for deaf counsellor, willingness significantly higher for hearing counsellor using sign or interpreter. Therefore, more tolerance towards deaf non signers	Analogue results therefore limits generalisability, only used male counsellors, bias indicated towards one counsellor as deaf posing as hearing (7% mistook hearing status)– may have impacted on ratings, limited conclusion

Critical Appraisal of Articles

Within this review Caldwell, Henshaw and Taylor’s (2005) Research Critique Framework was adopted, as it appraised qualitative and quantitative studies concurrently and segregated standards expected of quality studies into discrete constructs. However, several amendments were made to help apply the framework. Specifically, most constructs were expanded to facilitate the reviewer in appraising each level. Similarly, as the framework authors did not clarify what was meant by the question ‘Are the authors credible?’ (e.g., qualifications, experience, publications, writing style or arguments proposed), this construct was disregarded. Additionally, the reviewer felt that to encourage critical appraisal within the research community, researchers should be credited in the first instance for critically appraising their own research. Therefore, a study limitations recognition construct was added. This adapted framework was used to appraise the nineteen papers in this review (Figure 2).

In appraising papers, originally Yes/No ‘tick box’ style responses were used. However, most constructs incorporated multiple concepts (e.g., “Is the methodology (1) identified and (2) justified?”). Merely stating that the paper utilised a qualitative design was not sufficient to award full credit, but using the two-point model scored this construct as absent, but did not distinguish from papers failing to identify their methodology. For some constructs it appeared important to not disregard important aspects because another aspect was lacking (e.g., “Is the sample (1) adequately described and (2) reflective of the population?”) Therefore, it was agreed that a three factor score would be incorporated showing; (a) all aspects were unmet (incurring a 0), (b) one aspect had been met but not the other, or that both had been partially met (incurring a 1) and (c) all aspects had been met (incurring a 2). Totalling these gave an overall score between 0-36 per paper. The appraisal summary is below (Table 4).

Critical Appraisal Framework



Title - Reflects content? (e.g. Does it indicate content of paper and stick to original concept?)

Authors - Are they credible? (Removed as no clarification as to how this is defined)

Abstract - Summarise key components? (e.g. Is something from each chapter represented?)

Rationale - Is it clearly outlined? (e.g. Does it explain why this research needs to be done?)

Literature - Comprehensive and up-to-date? (e.g. Depth and breadth enough for detail provided?)

Aim - Is this clearly stated? (e.g. Easy to understand what they hope to achieve from paper?)

Ethical Issues - Identified and addressed? (e.g. Concerns raised and how compensated for?)

Methodology - Identified and justified? (e.g. Type of study and explanation for why chosen?)

Quantitative

Design - Clearly identified and rationale for choice evident? (e.g. Why not other designs?)

Experimental Hypothesis - Clearly stated? Are key variables clearly defined?

Population - Clearly identified? (e.g. Where they are looking for data and why?)

Sample - Adequately described and reflective of population? (e.g. Who took part, representative?)

Data - Method of collection valid and reliable? (e.g. Measures adapted for population?)

Analysis - Method of analysis valid and reliable? (e.g. Appropriate statistical tests used?)

Qualitative

Design - Philosophical background and rationale for choice of design evident?

Major Concepts - Identified? (e.g. Is it easy to understand what they are looking for?)

Context - Outlined? (e.g. Where they are looking for data and why?)

Sample - Selection described and sampling method identified? (e.g. Who took part and how chosen?)

Data - Method of collection auditable? (e.g. What was done, is this replicable?)

Analysis - Method credible and confirmable? (e.g. Understandable and appropriate?)

Results - Presented in an appropriate and clear format? (e.g. Can they be understood?)

Generalisable - Results? (e.g. Do they describe the population?)

Discussion - Comprehensive? (e.g. Results grounded in theory?)

Transferable - Results? (e.g. Can they be applied elsewhere?)

Limitations - Acknowledged? (Additional construct added onto original published model)

Conclusion - Comprehensive? (e.g. Areas of future research and clinical implications identified?)

Figure 2: Research Critique Framework (based on Caldwell, Henshaw & Taylor, 2005)

Table 4: *Critical Evaluation of Articles in Descending Order of Quality*

Article	**Title**	**Abstract**	**Rationale**	**Literature**	**Aim**	**Ethics**	**Methodology**	**Design**	**Hypoth/Con**	**Pop/Context**	**Sample**	**Data Collect**	**Analysis**	**Results**	**Gen/Tran**	**Discussion**	**Limitations**	**Conclusion**	**Total**
Munro, Knox & Lowe (2008)	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2	2	34
Haley & Dowd (1988)	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	1	1	32
Greco, Beresford & Sutherland (2009)	2	2	2	2	2	2	2	2	1	2	1	2	2	2	1	2	2	1	32
Landsberger & Diaz (2010)	2	2	2	2	2	2	0	1	0	2	2	2	2	2	2	2	2	2	31
Boyd (2007)	2	2	2	2	2	2	2	2	2	2	2	1	0	1	0	1	2	1	28
Feldman & Kearns (2007)	2	2	2	2	2	1	0	1	2	1	1	1	2	2	1	2	2	2	28
Freeman & Conoley (1986)	2	2	2	2	0	1	0	1	2	1	2	2	2	2	1	2	1	1	26
Feldman, Kluwin & McCrone (2005)	1	2	2	2	0	2	0	2	2	1	2	2	2	2	0	1	2	1	26
Ferguson, Lowndes, McDonald, Edmond & Tolson (2009)	1	2	1	1	2	2	1	2	0	2	1	2	2	2	0	2	1	2	26
Rodda & Eleweke (2002)	2	2	2	2	2	0	2	1	1	1	1	1	1	2	2	1	0	2	25
Briffa (1999)	2	0	2	2	2	1	1	1	0	2	1	1	2	2	2	2	0	2	25
Iqbal & Hall (1991)	2	2	2	2	2	0	0	1	0	2	2	1	1	1	1	1	1	2	23
Feldman & Gum (2007)	2	2	2	1	2	0	0	0	2	1	1	1	2	2	0	1	2	2	23
DeVinney & Murphy (2002)	2	2	2	1	2	0	1	0	1	1	2	2	1	2	0	2	1	1	23
Munro-Ludders, Simpatico & Zvetina (2004)	2	2	2	2	2	0	0	1	0	2	1	1	1	2	1	2	0	2	23
McEntee (1993)	2	2	2	2	2	0	0	1	0	1	2	1	2	1	1	2	0	1	22
Steinberg, Sullivan & Loew (1998)	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0	1	20
Pyke & Littmann (1982)	1	1	2	1	2	0	0	1	0	2	2	1	2	1	0	0	0	1	17
Cole & Magis (2011)	2	2	2	2	2	1	0	1	0	1	0	0	0	1	0	0	1	1	16

Summary of Critical Appraisal

No papers scored maximum points across the appraisal framework, endorsing of the framework to adequately differentiate quality across numerous studies. Similarly, all papers attained a score and so the framework was not too ambitious for small-scale research. However, all but two papers scored within the upper-half of the framework's range (>18), which might indicate limitations for appraising more comprehensive research, considering most papers were small-scale reviews or single-case studies.

Strength areas across most papers included titles and abstracts accurately reflecting content and clearly outlined rationale and aims. Papers were penalised if content was vague, unclear or misleading (e.g., Feldman, Kluwin & McCrone, 2005 – using the title 'Deaf clients' perceptions of counselling expertise as a function of counsellors' signing skill, gender, and therapy type' when their sample is specifically college students interested in counsellor training courses). Many papers provided considerable background literature supporting rationales, despite many advocating the infancy of this research area, which highlighted all but a few authors' creativity in justifying their aims through literature from parallel sources (e.g., barriers for immigrants, willingness towards disabled counsellors).

Many papers failed to identify and/or justify their methodology, with the weaker papers struggling to detail design, philosophical background and rationale for this choice. Similarly, weakness in justifying a paper's design appeared linked to ability to identify and address ethical issues, with many stronger papers raising ethical issues around conducting research within this population as the rationale behind chosen designs and/or methodologies. Perhaps by being more attuned to the population (hypothesising or conceptualising adequately), authors were able to identify research barriers and develop designs to facilitate stronger, grounded research pieces.

Population description, contexts and participant samples were variable, ranging from comprehensive participant population summaries to one paper stating that 'twenty-six deaf adults' participated. Principally, papers providing mixed service user/provider views described participants particularly poorly, making establishing the context in which these perspectives were formed difficult (e.g., "Fifteen participants from across the province, many with multi-cultural backgrounds, attended the workshop" - Rodda & Eleweke, 2002). Ethnicity data was missing in many papers, but notably Caucasian-biased in papers that detailed this. Many papers sourced participants from people engaged with therapy or those prevalent within deaf support groups, which will bias the results towards those more active in accessing support.

Data collection method description followed a similar vein, in that many of the papers failed to detail how interview/focus-group information, gathered in sign language, was transcribed accurately. Similarly, information on how questionnaires were constructed/delivered was lacking, especially considering impaired literacy levels notable in deaf population (Ferguson et al., 2009; Munro et al., 2008). Unsurprisingly, there was bias towards well-educated people, as some data collection methods appeared biased against those unable to respond to a written questionnaire. Additionally, details around the interpreter use in both these communications were notably absent from some papers, questioning accessibility for those not orally proficient.

Analyses and results in the papers generally appeared to be well conducted and reported-upon, albeit simplistic, as from the smaller scale research projects only descriptive data or subjective themes could be drawn. Results indicated the limited data available to researchers, with many designs restricted by the accessibility and adaptations made to access deaf population information, indicated by low response-rates and reliance on inherently biased information (Axis IIII diagnoses of deafness).

Regarding generalisability/transferability, many papers were prejudiced by biased sampling highlighted within their results or discussions, so sadly limits this construct, but interestingly raises questions for the strength of the claims made by this review. Similarly, all prospective papers highlighted the inherent flaw with analogue studies, in that intention does not equal action, which also raises a limitation with papers detailing resource availability, in that access does not automatically equate to use. Discussions and conclusions were comprehensive in most papers, although some failed to ground their summaries in theory and fully explore implications or progression of their research. Concerning the additional construct of limitations, regardless of paper strength, several papers failed to adequately reflect upon study's limitations, highlighting an interesting research community learning point.

Analysing the numerical critical appraisal results it was decided to review only papers scoring above the mid-point (average of 25 points) (9 papers), as these consistently; used quality literature to justify their studies, defined aims and hypotheses, considered ethics around conducting the research to influence their designs, attempted to adequately describe their populations/sample, sensitively collected and analysed data and provided comprehensive discussions and conclusions, incorporating limitations of their studies.

RESULTS

The nine chosen papers were subsequently reviewed for themes related to deaf peoples' experience of mental health services and factors associated with help-seeking behaviour. Each paper's results and discussion sections were chunked into discreet sections pertaining to a single concept. These concepts were grouped with chunks from other papers into content-based sections. Groups of similar content were collated producing themes related to both experiences of mental health services and factors associated with help-seeking behaviour. Both sections produced three themes, experiences of mental health services included; access to services, experience of professionals and communication. Factors associated with help-seeking behaviour included; integrated specialist services, sign language trained professionals and alternative communication. Each paper's content was summarised into each themes below (see Tables 5 & 6).

Table 5*: Summary of Themes Drawn from Papers Regarding Deaf Peoples' Experiences of Services (*Positive Experiences)*

Paper	**Access to Services**	**Experience of Professionals**	**Communication**
Landsberger & Diaz (2010)	➢ Sign Language users prevented from participating in therapeutic process. ➢ Language dysfluency was confused for thought disorder and misdiagnosed as psychosis or intellectual disability. ➢ There were delays in discharges to outpatient services as community support was lacking, which resulted in longer hospital stays.	➢ Outpatient services could not meet the individual needs of deaf people. ➢ Little training was given to therapist during their professional training. ➢ Interpreters were not skilled in MHP's and deafness issues. ➢ Professionals pathologised cultural differences, which led to misdiagnoses of intellectual disability/psychosis.	➢ Accurate diagnoses cannot be made by written assessments alone. ➢ Interpreters lacked training in mental health needs of the deaf. ➢ Translation of medical jargon was confusing and led to misdiagnoses.
Greco et al. (2009)	➢ Deaf people uninformed about services available, lacked information access. ➢ Deaf people felt unsupported whilst awaiting access to generic services which were delayed by waiting lists ➢ Deaf people were angry at changes to appointments, given the implications for rescheduling interpreters. ➢ *Deaf people felt specialist services supported them better.	➢ Deaf people felt that generic services were unskilled in deafness issues. ➢ Deaf people were concerned about the confidentiality of interpreters as the deaf community is so small. ➢ *Deaf people felt they formed a better relationship with deaf professional as they had a shared experience, therefore they experienced little embarrassment, and also felt heard and understood.	➢ Deaf people worried about the cost of interpreters, despite this being the services responsibility. ➢ Deaf people felt some interpreters signed too fast/used unfamiliar signs. ➢ Translation of jargon was confusing. ➢ *Native signers more proficient, therefore easier to communicate with. ➢ *Signing professional preference.
Ferguson, Lowndes, McDonald, Edmond & Tolson (2009)	➢ Deaf client excluded from assessments, treatment discussions scarce, so denied participation in shared decisions. ➢ Limited access to information about care and treatment in hospital. ➢ Medication used to dismiss patients. ➢ Deaf felt isolated from hearing clients. ➢ Often felt powerless or dominated. ➢ *Equipment available was improving. ➢ *Best experience of specialist services. ➢ *Consultation process was improving.	➢ Services lacked deaf awareness, but *training was improving knowledge. ➢ Professionals felt incompetent so they withdrew from engaging with client. ➢ Professionals seen as frustrated with them, so support cautiously sought. ➢ Therapeutic relationship was missing. ➢ Third parties challenged privacy and confidentiality (family/interpreters). ➢ *Signing staff helped engagement. ➢ *Felt understood and listened to.	➢ Detrimental, impoverished communication, despite legislation. ➢ Clinicians were dependent on speech reading, written notes and leaflets. ➢ Deaf dismissed through low literacy. ➢ Qualified interpreters hard to secure at short notice, so deprived equal access. ➢ Cost of interpreters raised as concern. ➢ Families communicate/made decisions. ➢ *Signing professionals facilitated clarification of medication/treatment.

Paper	Access to Services	Experience of Professionals	Communication
Munro, Knox & Lowe (2008)	➢ Deaf people felt isolated from services. ➢ They were dismissed with medication. ➢ Deaf lacked access to information. ➢ Unstandardised measures used or adapted/accessible interventions. ➢ *Helpful texting appointments and attempts to support access.	➢ Generally felt professionals unskilled in issues related to deafness and MH. ➢ Professionals seen as fearful of the deaf. ➢ Deaf people blamed for deafness with assumptions of 'retardation'. ➢ Deaf persist with inadequate support as felt hearing perceptions correct. ➢ Need to be heard and understood.	➢ Clinicians dependent on speech reading or written information. ➢ Interpreters not fully accredited. ➢ Interpreters lack MH training. ➢ Cost of interpreters a concern for deaf. ➢ Translation of jargon confusing. ➢ Family used to communicate for deaf. ➢ *Better relationship made with signer.
Feldman & Kearns (2007)	➢ Limited services that cannot meet demand, so Deaf Community replace this support/fill the void. ➢ Deaf lack awareness of services due to lack of media access.	➢ Most services less than adequate. ➢ Deaf people have little influence on service planning/provision. ➢ Professionals untrained in culture needs of the deaf person.	➢ Paucity of signing professionals knowledgeable about deaf culture. ➢ Interpreter provision poor, hard to secure for short/quick meetings.
Boyd (2007)	➢ Therapy restricted by service time-limits ➢ Measures not adapted for the deaf. ➢ Waiting room policies inhibit access. ➢ Engagement out of deference to GP. ➢ *Positive when able to tell story. ➢ Told what to do by professionals.	➢ Professionals fearful of the deaf. ➢ Boundaries around comfort limited for the professional when deaf distressed. ➢ Differences not respected/ashamed. ➢ Professional assumptions of 'retardation' or 'chip on shoulder'. ➢ Rejection/humiliation expected.	➢ Professional relied upon speech reading, which required much repetition. ➢ Simplified information given to deaf person as if incapable of understanding. ➢ *Positive when professionals share communication responsibility with deaf person.
Feldman, Kluwin & McCrone (2005)	➢ Lack of specialised services led to a history of failure to respond to needs of deaf people.	➢ *Familiarity with deaf culture aids appropriate assessment/treatment.	
Freeman & Conoley (1986)	➢ Services lack knowledge of deaf. ➢ Denial of shared decision making leads to misdiagnoses.	➢ Deaf people reject interpreters as an excuse to not learn language.	➢ Interpreters are invasion of privacy, challenge confidentiality and block nuances in expression.

Table 6*: Summary of Themes Drawn from Papers Regarding Factors Associated with Help-Seeking Behaviour*

Paper	**Integrated Specialist Services**	**Sign Language Trained Professional**	**Alternative Communication**
Landsberger & Diaz (2010)	➢ Incorporate dysfluency assessments. ➢ Integration between in/outpatient. ➢ Stepped-down care from hospital.	➢ Professionals fluent in sign language and regularly trained in deaf culture. ➢ Understand implications of deafness.	➢ Desire for skilled interpreters. ➢ Written communication avoided as misdiagnoses common.
Greco, Beresford & Sutherland (2009)	➢ Listen to and share information. ➢ Practical advice given sensitively. ➢ Use of videoconferencing as aid. ➢ Value skills of specialist service.	➢ Professionals fluent in sign language and deaf culture valued. ➢ Deaf professionals share experience. ➢ More proficient in sign language.	➢ Knowledgeable qualified interpreters.
Ferguson et al. (2009)	➢ Dedicated signing professionals. ➢ Communication needs documented in case notes.	➢ 1:1 therapeutic relationship desired. ➢ Professionals fluent in sign language Trained in MH deaf awareness.	➢ Swift access to skilled interpreters. ➢ Written communication avoided as low literacy.
Munro, Knox & Lowe (2008)	➢ Use of text or fax for appointments. ➢ Adjusting lighting/seating positions. ➢ Listen to and share information. ➢ Ability to tell their story is important. ➢ Adapted accessible service preferred.	➢ Professionals fluent in sign language. ➢ Knowledgeable about deaf culture. ➢ Use same language as client. ➢ Deaf therapists risk confidentiality. ➢ Issues raised re: duel relationships.	➢ Knowledgeable interpreters desired. ➢ Consistency needed with interpreters. ➢ Range of communication styles tried. ➢ Written communication inaccessible.
Feldman & Kearns (2007)	➢ More specialist MH services needed. ➢ Preference for specialist services.	➢ Direct communication - providers who understand cultural differences.	
Feldman, Kluwin & McCrone (2005)	➢ Identify mode of communication. ➢ Understand implications of deafness. ➢ Included in service development.	➢ Gender/type of sign not influential. ➢ HOH more tolerant than Deaf. ➢ Experience with deaf facilitates trust.	➢ Knowledgeable qualified interpreters.
Haley & Dowd (1988)		➢ Professionals fluent in sign language. ➢ Deaf culture knowledge = credible. ➢ Deaf professionals more empathetic and influential as shared experiences.	➢ Same willingness to see professions who uses sign language interpreter. ➢ More accepting of poor signing/ written communication from deaf.
Freeman & Conoley (1986)	➢ Highlight different forms of sign language and accommodate.	➢ Gender and education not influential. ➢ Hearing signers viewed same as deaf Experience with deaf facilitates trust. ➢ Suspicion if do not learn sign language.	➢ Range of communication styles tried.

Experiences of Mental Health Services

Access to Services

Initial experiences reported a consistent lack of awareness that services existed, with below 50% of Feldman & Kearns' (2007) population aware of current services or able to access one if necessary, leaving participants isolated (Munro et al., 2008) and uninformed (Greco et al., 2009). Indeed, Feldman & Kearns (2007) highlighted lacking media advertisement for specialist services accessible to this population. This caused delays in accessing services, during which no support was provided (Greco et al., 2009; Landsberger & Diaz, 2010), turning instead to support from the deaf community (Feldman & Kearns, 2007). If services were sought, barriers were faced from the outset, with long waiting lists for generic and specialist services (Greco et al., 2009; Landsberger & Diaz, 2010), highlighting inadequacy of services to meet population demands (Feldman & Kearns, 2007). Then, appointments had to be made in person as text-relay services were unavailable (Ferguson et al., 2009; Munro et al., 2008), postponed appointments were not communicated appropriately (Greco et al., 2009) and waiting-room policies meant individuals were called orally (Boyd, 2007). However, some studies suggested that services were beginning to adapt, with increasing numbers of services supporting access using equipment and adaptations, such as managing appointments through text messaging (Ferguson et al., 2009; Munro et al., 2008).

During initial assessments, sign language users were hindered from participating (Landsberger & Diaz, 2010), with little information relayed to deaf individuals about the process (Ferguson et al., 2009). This made it impossible to make shared decisions about care (Ferguson et al., 2009; Freeman & Conoley, 1986) and lack of specialist services/ professionals familiar with language dysfluency led to misdiagnoses of intellectual disability, developmental delay, or psychotic disorder (Feldman et al., 2005; Freeman & Conoley, 1986; Landsberger & Diaz, 2010). Discussions about proposed treatments were scarce, especially regarding medication or hospitalisation, with one participant stating, "I was sectioned and I didn’t even know what sectioned meant, what it was about” (Ferguson et al., 2009). With effective communication missing, medication became an easy treatment, with one individual stating, “they basically just offered me some tablets and I didn’t know what they were for and they made me feel very, very dizzy and very frightened” (Ferguson et al., 2009; supported by Munro et al., 2008). When choosing therapy delivery, restrictions around engaging in time-limited out-patient therapy were noted with political constraints around “quick and cost-effective solutions, assessed through measurable outcomes” impeding client led interventions (Boyd, 2007), especially given that outcome measures were not designed for deaf people and seemed to not fit this population (Boyd, 2007; Munro et al., 2008). Conversely, in-patient hospital stays were delayed by lack of regional specialist community deaf services (Landsberger & Diaz, 2010). Whilst hospitalised, individuals felt they had no access to information about care or rights when detained under the Mental Health Act and were isolated from the hearing population (Ferguson et al., 2009). Some noted textual information was provided, but proved inaccessible due to literacy difficulties faced by a number of sign language users (Ferguson et al., 2009; Munro et al., 2008). Similarly, psycho-education, individual, group and milieu therapies had not been developed to be linguistically or culturally appropriate and so could not be accessed in the same way hearing clients did (Landsberger & Diaz, 2010; Munro et al., 2008).

Experience of Professionals

Some individuals felt generic services lacked skills to meet their needs, they did not understand their communication needs, their unique development needs (social, emotional and cognitive), how they interacted with family and peers, how they developed their identities within the deaf community and what educational, training and work barriers they faced (Feldman et al., 2005; Feldman & Kearns, 2007; Ferguson et al., 2009; Greco et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008). This was believed to hinder professionals in choosing appropriate assessments or treatments for individuals with communication needs

(Feldman et al., 2005), and more likely to pathologise cultural differences and cause misdiagnoses (Landsberger & Diaz, 2010). However, some individuals felt deaf awareness in mental health professionals was improving through uptake of training (Ferguson et al., 2009), but very few deaf people felt they had opportunities to influence services or their delivery, despite these improvements (Feldman & Kearns, 2007; Ferguson et al., 2009).

Individuals stated they would often attend appointments out of deference to their GPs, despite not believing that the service could provide useful support (Boyd, 2007; Munro et al., 2008). Sometimes deaf clients felt frustrated or scared that professionals would assume that they were ‘retarded’ or expect them to have a ‘chip on their shoulder’ due to their deafness and thus tell them what to do or blame them for their difficulties (Boyd, 2007; Ferguson et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008). However, deaf people also assumed that hearing people were right in their beliefs (Munro et al., 2008) and did not expect to be respected for their differences (Boyd, 2007), thus they ended up feeling ashamed about their difficulties and automatically expected to be rejected, humiliated or treated as inferior during consultations (Boyd, 2007).

Upon meeting professionals, questions were raised regarding levels of training given to professionals around working with deaf clients, with individuals encountering untrained, unconfident professionals appearing paralysed by feelings of incompetence when faced with a deaf client and would often withdraw (Boyd, 2007; Feldman & Kearns, 2007; Ferguson et al., 2009; Freeman & Conoley, 1986; Munro et al., 2008). Deaf clients reported frustration and anger in professionals, sometimes directed at them, generating caution around professionals despite needing their support (Ferguson et al., 2009). Individuals felt professionals struggled to contain and comfort them when upset, through the inability to use words (Boyd, 2007).

Within services employing interpreters or staff who could sign, there are reports that the services failed to necessitate staff being skilled in understanding the mental health needs of the deaf population or how to care for them (Landsberger & Diaz, 2010). Use of interpreters in sessions was shown to impact the power dynamics between therapist and client and hinder intimacy that only comes with a strong therapeutic relationship (Ferguson et al., 2009), as nuances accompanying communication were blocked (Freeman & Conoley, 1986). Interpreters were seen as contravening privacy rights during personal conversations about sensitive information. This was exacerbated as the available interpreter pool is small and so often could have encountered clients in other settings (Ferguson et al., 2009; Freeman & Conoley, 1986). Therefore, across a number of studies, expectation of confidentiality caused concern (Ferguson et al., 2009; Freeman & Conoley, 1986; Greco et al., 2009), leading to individuals refusing the use of interpreters (Freeman & Conoley, 1986). Conversely, positive experiences came from clients feeling able to share their stories and emotions with clinicians without embarrassment and experiencing feelings of being listened to and understood leading to appropriate support (Boyd, 2007; Ferguson et al., 2009; Greco et al., 2009; Munro et al., 2008).

When it came to accessing specialist services, deaf clients reported forming relationships with professionals who could sign was easier (Greco et al., 2009; Munro et al., 2008), and further facilitated with a deaf professional as clients felt they had shared experiences as “the clinician also knew what it was like to be deaf” (Greco et al., 2009). A more secure feeling was reported by deaf clients when being assessed by a clinician competent in sign language and knowledgeable about deaf culture, as these clinicians were perceived as able to recognise how unique client needs interacted with their difficulties (Greco et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008). Similarly, deaf people were able to fully participate in the care experience, with one individual describing their experience of specialist services by stating, “when there were meetings they were able to sign away and I was able to understand what was being said” (Ferguson et al., 2009).

Communication

Many individuals described an impoverished communication environment lacking in signing professionals, easily accessible interpreters or equipment accommodating their communication style, despite this contravening disability and equality legislation in many countries (Ferguson et al., 2009). However, some felt that this was more a lack of knowledge than malicious disregard (Ferguson et al., 2009). Clinicians often expected the individual to speech read (previously lip read) or relied on using written English notes, despite English being a second language to most native signers and less than 33% of words being distinguishable by lip movement alone (Boyd, 2007; Feguson, 2009; Landsberger & Diaz, 2010; Munro et al., 2008). One individual described feeling dismissed by his limited literacy skills, “I had to write things down, they didn’t understand when I was writing things down and they would just nod and not really communicate that was really, really difficult” (Ferguson et al., 2009).

Qualified interpreters were reported as unwilling to attend short appointments, frequently absent from care planning meetings, needing to be booked well in advance and unable to respond rapidly in a crisis situation (Feldman & Kearns, 2007; Ferguson et al., 2009). Deaf people felt this detrimentally affected them especially when they were particularly vulnerable (Ferguson et al., 2009). Concern over interpreter cost was also consistently raised, despite responsibility falling with services in the UK (Ferguson et al., 2009; Greco et al., 2009; Monroe et al., 2008). Therefore, individuals felt denied equal access to care (Ferguson et al., 2009). As interpreters were irregularly available in hospitals, individuals felt unable to participate in decision making around patient care (Ferguson et al., 2009). Individuals also noted that not all interpreters were accredited (Munro et al., 2008); fewer still had mental health interpreting training, causing poor translation of medical jargon, given some words have no sign equivalent (auditory hallucination) or were region-specific within the UK (Greco et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008).

Specifically, children noted that some interpreters signed too fast or used signs unfamiliar to them (Greco et al., 2009).

In lieu of interpreter presence individuals noted friends and family were used instead (Ferguson et al., 2009; Munro et al., 2008). One individual in particular highlighted that his request fell on ‘deaf’ ears, “I did want an interpreter you know and I did ask, ‘please, please bring in a signer’ but again it was just sorry, I didn’t want my mum involved and I did say that I didn’t want her involved and I wanted an interpreter involved to be able to speak on my behalf” (Ferguson et al., 2009). Consequently, friends and family often spoke for or made decisions without consulting the individual (Ferguson et al., 2009; Munro et al., 2008).

Feldman & Kearns (2007) noted the paucity of professionals trained in manual communication and deaf people felt that reliance on interpreters was avoidance of learning the language (Freeman & Conoley, 1986). Therefore, individuals were impressed when speaking to signing professionals (Greco et al., 2009) as they felt a shared responsibility for overcoming communication barriers (Boyd, 2007). One individual stated that with access to signing professionals “if I was ill, if I’d any problems, then I would be able to ask for clarification and you know I’d understand what the medication is” (Ferguson et al., 2009). However, some emphasised signing expertise of professionals, noting non-native signers were harder to communicate with, with some using unfamiliar regional signs (Greco et al., 2009).

Factors Associated with Help-Seeking Behaviour

Integrated Specialist Services

Nearly all of Feldman & Kearns’ (2007) cohort wanted more services for the deaf (95%), specifically mental health counselling (61%) commissioned as separate from hearing services (78%). Landsberger & Diaz (2010) similarly highlighted the lack of community services taking on the stepped-down care of hospitalised patients, long waiting lists and inaccessibility of generic services (Greco et al., 2009; Munro et al., 2008). Therefore, enhanced integration between specialist inpatient units and outpatients services is needed to facilitate flow through mental health services (Landsberger & Diaz, 2010), with preference towards specialist services for the deaf or setting up to appropriately accommodate deaf needs (Feldman & Kearns, 2007; Ferguson et al., 2009; Greco et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008). Aspects such as highlighting the communication needs of the individuals within the case notes will aid transition through services (Ferguson et al., 2009), especially as there are different forms of sign language (sign language standardised by the Deaf Community (i.e., BSL, ASL, Auslan), Signed Supported English (SSE)[6] or Pidgin signed English[7]) (Freeman & Conoley, 1986). Similarly, assessment of MHP's should incorporate assessment or consideration around language dysfluency, to prevent misdiagnoses and accurately treat individuals (Landsberger & Diaz, 2010). Thus, understanding hearing loss implications can help a professional better understand symptoms of MHP's and select assessment and intervention methods (Feldman et al., 2005; Landsberger & Diaz, 2010).

Successfully engaging a deaf person within therapy depended on physical and psychological aspects, which established quality of support and level of safety felt during the process. Therefore, ability to assure deaf people that these adaptations would be made when they sought help would facilitate access. Simple physical adaptations to the environment, such as offering text-relay, text messaging or fax machines to make referrals or initial appointments would help make deaf people feel more included, alongside being open to offering the use of qualified, MHP knowledgeable interpreters (Feldman et al., 2005; Greco et al., 2009; Munro et al., 2008). Due to the lack of signing and deaf professionals, equipment such as video-conferencing could aid access to sought-after professionals in geographically dispersed locations (Greco et al., 2009). Being included in the process, professionals sharing information about assessment and treatment options and feeling as if practical advice was

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[6] *Signed Supported English is sign language that follows the same structure of spoken English incorporating all words into signs to be communicated alongside speech.*

[7] *Pidgin signed English is usually used by people who have acquired spoken language before becoming deaf and so is a combination of sign language but still retaining some of the grammatical structure of spoken language.*

given sensitively were important to deaf people (Greco et al., 2009; Munro et al., 2008). Therefore, to help deaf people understand the process better it would be pertinent to have information available in a range of accessible formats regarding the services that are on offer. Lastly, deaf people should be incorporated into the planning and commissioning of services for the deaf (Feldman et al., 2005).

Sign Language Trained Professionals

What was clear from the literature was the desire for sign language fluent professionals knowledgeable about deaf culture, and how this influences MHP's (Feldman & Kearns, 2007; Ferguson et al., 2009; Freeman & Conoley, 1986; Greco et al., 2009; Haley & Dowd, 1988; Landsberger & Diaz, 2010; Munro et al., 2008). Incidentally, in most of the studies hearing professionals proficient in sign language were viewed similarly to deaf professionals (Freeman & Conoley, 1986; Munro et al., 2008), suggesting desire for a one-to-one therapeutic relationship not mediated through another professional (Ferguson et al., 2009). With one person stating "I would rather, just straight to the person, signing to the person, being understood by that person" (Ferguson et al., 2009). Gender or education level of professionals was not an influential factor, but experience working with deaf people facilitates a level of trust in hearing professionals (Feldman et al., 2005; Freeman & Conoley, 1986). However, when hearing professionals working with the deaf failed to learn sign language, suspicion was aroused (Freeman & Conoley, 1986).

Suggestions were made that deaf professionals would be more desired through shared experiences of being deaf and could therefore be more empathetic and influential in a therapeutic setting (Greco et al., 2009; Haley & Dowd, 1988). Similarly, in actual situations they were more proficient at sign language using more fluid, nationally recognised signs (Greco et al., 2009), despite one paper suggesting that neither use of proficient nor Pidgin sign language altered the perception of the therapist (Feldman et al., 2005). There was also less reluctance to judge a deaf professional for having limited signing skills or using alternative forms of communication, such as written notes (Haley & Dowd, 1988), although this may be related to the hearing status of the client, with hard of hearing individuals being seen as more tolerant of signing differences than culturally Deaf individuals (Feldman et al., 2005). However, some felt deaf professionals would put their confidentiality at risk, given the intimate nature of the Deaf Community (Munro et al., 2008). Even with promised confidentiality, they would be concerned that knowledge of their issues would get out or that it would raise issues of dual relationships seeing their therapist out at community events (Munro et al., 2008).

Alternative Communication

Where signing professionals are unavailable, skilled sign language interpreters are desired (Ferguson et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008), with willingness to see a generic mental health professional using a skilled interpreter being equivalent to that of a signing professional (Haley & Dowd, 1988). Critically, consistency with interpreters needs to be sought, to facilitate the individual feeling comfortable continuing with the therapy, becoming familiar with the interpreter’s signing style and thus the interpreter with medical terminology (Munro et al., 2008). Regarding inpatient units, there was a desire for a dedicated, sign language proficient, person to be available throughout the day supporting deaf individuals to access the service, from assessment and treatment to information about care and process reviews (Ferguson et al., 2009). When interpreters are unavailable, it was highlighted that multiple communication methods be attempted and the individual’s views sought around preferred communication modes, whilst an interpreter is sourced (Freeman & Conoley, 1986; Munro et al., 2008). However, using written communication in therapeutic settings was universally dismissed given the limited literacy of deaf people (Boyd, 2007; Ferguson et al., 2009; Haley & Dowd, 1988; Landsberger & Diaz, 2010; Munro et al., 2008).

DISCUSSION

Deaf people for various reasons appear more at risk from MHP’s than hearing people. Despite acknowledgment of this driving development of services to meet their needs, service uptake was slower than anticipated. Therefore, reviewing literature to try to understand why so few deaf people with MHP’s access even specialist services appeared pertinent at this time. This review has highlighted the paucity of research directly seeking deaf people’s views towards this issue, with many professionals detailing their views instead. In reviewing the papers, access to the deaf population was clearly an issue. Many papers struggled to access large sections of this population and were biased by this. Either gathering the views of people who were already receiving therapy (thereby excluding the opinions of those that had disengaged from services), or seeking views of highly educated people, active in their community and able to engage in research conducted by the hearing community (thereby seeking the views of those perhaps more able to advocate for their needs from available services). Despite this, the 19 papers gathered views covering the life-span of deaf people, a whole range of hearing statuses, several countries, and both generic and specialist inpatient and outpatient services.

In summarising deaf people’s views included in this review towards their experiences of services, in general, these were considered far from adequate. Deaf people often reported that access was denied or diluted by communication barriers. Whether this was being uniformed of services through inaccessible advertising and information, being unable to access services through access policies not incorporating their communication method, being excluded from or biased within the assessment/treatment process through lack of adaptation to their needs, or being denied relationships with professionals due to the onus of communication being placed on an individual with a MHP and not the professional. As communication was such an issue, all the predictive factors around improving mental health service access for this population also revolve around communication. From setting up specialist services with communication at the forefront of the design, communicating relevant needs between services, having communication aides to support access, incorporating ways of supporting deaf people's communication within their care, to having professionals they can communicate with directly.

Evidently, all reported positive experiences were where communication barriers were broken down, from being able to text appointments, to being involved with communication about care and treatments and being able to communicate directly with a professional. Areas where debate was evident were areas where communication was not the primary issue. For example, there was no clear stated preference toward generic or specialist services, with deaf people indicating that adapted generic services meeting their communication needs were equally capable of meeting their mental health needs, but until such time as this happened, specialist services were sought. Similarly, the hearing status of the professional was debated, with hearing and deaf professionals indistinguishable in preference terms from deaf people, provided the hearing professional was either fluent in sign language or used an experienced qualified interpreter. Lastly, a desire for services aware of deaf culture was debated as a side-line to understanding communication needs, but these two aspects are not clearly that distinct. Indeed, one would expect that in respecting an individual's communication needs one would have to have considered their culture. However, it could be argued that you do not have to fully understand that individual's culture in order to produce a good therapeutic outcome (Munro et al., 2008). This therefore raises the question of 'How do deaf clients identify that a therapist is aware of deaf culture?' (Munro et al., 2008), which is perhaps a question to be asked of another review.

Clinical Implications

In compiling this review it was clear that there was insufficient research into this area to be more specific about the population. Therefore, the claims of this review can only be generalised across the population as a whole and as such may not represent the views of specific subgroups. For example, segregating the views of the culturally deaf, Deaf Community might elicit different views about specialist services and deaf professionals than late-deafened or hard of hearing populations. Similarly, deaf people from ethnic minorities or those less prominent within deaf society might highlight views not even considered in this review. Given the limited sources of the papers, again these claims cannot be generalised further than the developed western world. Therefore, experiences and indeed provision of services may differ greatly between countries, especially considering many papers reported on UK-based populations or came from countries where literature suggests similar thinking and developments around mental health service provision for the deaf population.

Drawing on the findings from the review, deaf people's experiences of services have been notably discriminatory in the past, which will have tainted their views towards mental health services. Clearly communication is a pervasive barrier throughout all levels and aspects of care. Therefore, in order to promote a more inclusive model, services will have to concentrate on reducing communication barriers. Primarily, educating deaf people about services, assessment and treatment options, and pathways through services would make a start, but this has to be coordinated with educating professionals and services about deaf people, their communication needs and how mental health issues manifest within them. Promoting engagement with the deaf community and raising a better profile for mental health services alongside this education is required, thus incorporating deaf people into commissioning decisions about services. Then surveying their views of services will be more inclusive and provide a more accurate picture of needs. Alongside this, professionals have to take responsibility for being part of the communication process with deaf people, and expect to negotiate a better standard of communication as far a possible within the constraints of budgets and timescales.

Limitations and Further Research

As for reviewing the papers, many critical frameworks were considered, but only one could be incorporated and consequently, the one incorporating both types of methodology into one framework stood out. In applying this framework, every effort was made to standardise the critique and eliminate bias across the papers. As such, papers were discussed in supervision to clarify areas of dispute. However, it was noted that with this (and many other) frameworks, each aspect was weighted equally in the overall critical appraisal score. Arguably some aspects, such as methodology/design, might outweigh other aspects or even negate their appraisal. However, with such low-level exploratory studies allowances have to be made to a review canvassing the consensus of well-researched concepts that produce such papers as randomised control trials. Therefore, again caution has to be applied when considering the claims made by this review, but until additional and more robust research is done into this area, then challenges or support to the claims made remain unheard.

Overall, this was the first review of its kind to canvas the views and experiences of deaf people. Notably, the review can only be as robust as the literature it reviews and given the paucity of literature, this has to be questioned. However, every effort was made to challenge the robustness of the literature and as such papers reliably supported the collective claims made. Arguably this review provides a unique introduction to the views and experiences of a previously overlooked population. However, this now needs to form the basis for conducting additional, more informed and methodologically sound research, so that future claims made about the experiences of this population are drawn from wider representation and used to move the understanding of this population forward.

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RESEARCH PAPER

MENTAL HEALTH & WELLBEING: THE VIEWS OF DEAF CHILDREN TOWARDS SEEKING HELP FOR MENTAL HEALTH PROBLEMS

Word Count: 7991

ABSTRACT

Aim: Promoting mental wellbeing is at the forefront of the Government agenda with policies recognising that this should begin in childhood. For deaf children this is particularly pertinent, as they have a higher prevalence of mental health problems (MHP's) than their hearing counterparts, yet their utilisation of mental health provision is poor. To date, very little research had been conducted in order to investigate the reasons behind poor service uptake. Therefore, this study seeks to explore the factors associated with help-seeking intentions for MHP's in deaf children. **Method:** 186 deaf children (11-19 years of age) from specialist schools[8] in the UK, covering two schooling dimensions (Oral-Deaf and Total Communication; TC), were surveyed to examine factors associated with their help-seeking intentions towards MHP's. An online survey was used to collect data on a number of constructs that were mapped against those contained within the Health Belief Model (HBM). **Results:** Thirteen percent of the variance in children's help-seeking intentions was explained by variables in the HBM, with outcome expectancy and self-efficacy being particularly important to help-seeking intentions. Specific preferences for deaf/signing professionals and specialist services were not found; deaf children reported more flexibility towards differences in professionals than the literature has assumed to date. **Discussion:** The population surveyed was representative of sign language and speech users accessing specialist education provision, but not of the deaf population as a whole. Help-seeking intentions were skewed towards the positive given the specialist environment and easy access to mental health provision provided in these settings. Limitations of the study, as well as clinical and research implications are discussed.

Keywords: Children, Deaf, Mental Health, Help-Seeking Behaviour, Health Belief Model

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[8] *Identifying information such as the names of the services have been changed or removed, in order to protect the confidentiality of those involved.*

MENTAL HEALTH & WELLBEING: THE VIEWS OF DEAF[9] CHILDREN[10] TOWARDS SEEKING HELP FOR MENTAL HEALTH PROBLEMS[11]

The Mental Health & Wellbeing Agenda

Societal wellbeing or ‘capable communities’ was at the forefront of the government’s agenda (Institute for Public Policy Research, 2010). Building on the white paper ‘Equity and Excellence: Liberating the NHS’ (Department of Health (DOH), 2010a), the public health strategy ‘Healthy Lives, Healthy People’ (DOH, 2010b) highlighted the promotion of mental health alongside physical health. Therefore, the national strategy ‘No Health without Mental Health’ (DOH, 2011a) proposed six shared mental health objectives: to reduce prevalence, promote recovery, reduce co-morbid physical illness, improve care, reduce harm, and remove stigma and discrimination. However, this national strategy now incorporated young people, taking a life-course approach to tackling Mental Health Problems (MHP’s) by advocating to “build people’s self-esteem, confidence and resilience right from infancy” (DOH, 2010b, p4). It appeared the government had begun confronting research results, which showed up to 50% of enduring MHP’s present before the age of 14 (Kim-Cohen et al., 2003; Kessler et al., 2005) and 75% before an individual’s mid-twenties (Kessler & Wang, 2007). Similarly, research highlighted the lasting effects MHP’s have beyond childhood, through impeding life-chances (Fergusson, Horwood & Ridder, 2005), including educational qualifications, increasing chronic economic inactivity and potential for criminal behaviour (Sainsbury Centre for Mental Health, 2009), and shortening life-expectancy (Jokela, Ferrie & Kivimaki, 2009). Given that approximately 10% of children between the ages of 5–16 years are reported as having clinically diagnosable MHP’s (Green, McGinnity, Meltzer, Ford & Goodman, 2005),

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[9] *The term ‘deaf’ has been universally used throughout this paper to encompass all terms relating to the medical diagnosis of deafness and those individuals that experience deafness, and should not be confused with the cultural identity of being ‘Deaf’.*

[10] *The term ‘children who are deaf’ has been replaced with the term ‘deaf children’ throughout this document due to the limited word capacity of this paper.*

[11] *The term ‘mental health problems’ (MHP’s) is used throughout this document in the broader sense of the term, as opposed to mental health disorders.*

so that “at any one time, more than a million children will have a diagnosable mental health disorder”, which could cost the government “up to £59,000 per child every year” (DOH, 2011b), this was clearly noteworthy. However, considering such a small proportion (10%-15%) of those needing help actually sought it (DOH, 2004; WHO, 2008), further research into help-seeking for MHP’s is critical.

The Mental Health & Wellbeing of Deaf Children

Approximately 1:2700 children are born deaf (rising to 1:1000 when including acquired childhood deafness; Fortnum, Summerfield, Marshall, Davis & Bamford, 2001; Hindley, 2005), therefore, an estimated 37,414 deaf children live in the UK (Consortium for Research in Deaf Education (CRIDE), 2012). Morton and Nance (2006) suggested that 50% of these cases had a genetic origin, which the DOH suggested “would be remarkable if this did not, on some occasions at least, give rise to other difficulties” (2005, p3). Additional deafness causes include: complications from severe prematurity, intrauterine viral infections, Meningitis and Rubella, all of which could provide predisposing vulnerabilities to MHP’s (Brown, Cohen, Greenwald & Susser, 2000; Hindley, 2005; Patterson, 2002) or mediating circumstances (i.e., difficulties with learning, concentration, memory, mobility, coordination) (DOH, 2005; Hindley, 2005). Congenital difficulties also associate with a higher prevalence (15%) of central nervous system disorders (e.g., cerebral palsy, epilepsy) (Hindley, 2005), which were reported to increase risk of MHP’s six fold (Hindley, 2005; Rutter, Graham & Yule, 1970). Many deaf children (approximately 30%) also have additional difficulties, including Autism Spectrum Disorders (ASD), Attention Deficit Hyperactivity Disorder (ADHD), learning difficulties and visual/motor impairments, which could also have significant bearing on deaf children’s wellbeing (Hindley, 2005). Consequently, many studies indicate higher prevalence rates of MHP’s in deaf children, sometimes approaching 50% (Fellinger, Holzinger, Beitel, Laucht & Goldberg, 2009a; Fellinger, Holzinger, Gerich & Goldberg, 2007; Fellinger, Holzinger, Sattel & Laucht, 2008; Fellinger, Holzinger, Sattel, Laucht & Goldberg, 2009; Hindley, 1993, 1997, 2000 & 2005; Hintermair, 2006; Rice, 1993; Van Gent, Goedhart, Hindley & Treffers, 2007; Vernon, 2006; Vernon & Daigle-King, 1999).

However, Hindley (2000) stated that increased prevalence of MHP's in deaf children may also be due to cultural reasons, specifically the vulnerability of being deaf in a hearing world. This is significant considering approximately 95% of deaf individuals are born to hearing parents (Hindley, 2005; Meadow-Orlans & Erting, 2000; Rawlings & Jensema, 1977). Hindley (2005) and Horne and Pennington (2010) discussed how dissonant communication between a child and their environment may limit experiences of interaction, which hinders social and emotional development. The repercussions of such hindrance could display in the procurement of metacognitive skills (understanding of other people's thinking), emotional literacy (limited vocabulary), and consequential thinking (impacting on developing coping strategies), all of which prevail in deaf children (Gray, Hosie, Russell & Ormel, 2003; Hindley, 2005; National Deaf Childrens' Society (NDCS), 2003; Remmel, Bettrer & Weinberg, 2003). Therefore, "exclusion from high levels of incidental and informal learning situations" was a proposed risk factor for deaf children developing MHP's (Brauer, Braden, Pollard & Hardy-Braz, 1998, p357). Comparably, prevalence rates of MHP's in Finnish deaf children were equivalent to their hearing counterparts. Finnish children received bilingual education (sign and speech) and parents were supported in acquiring sign language to reduce communication dissonance and delays in social and emotional development (Sinnkonen, 1994). However, caution must be given regarding difficulties faced with assessing MHP's in deaf children given language barriers, limited skills of professionals working with this client group, and lack of standardised measures with this population (Greco, Beresford & Sutherland, 2009).

Therefore, MHP's could arise from a combination of factors, including genetic predisposition (Morton & Nance, 2006; DOH, 2005), predisposing vulnerability (Brown et al., 2000; DOH, 2005; Hindley, 2005; Patterson, 2002), dissonant communication with parents (Hindley, 2005; Horne & Pennington, 2010) and impaired cognitive development (Gray et al., 2003; Hindley, 2005; NDCS, 2003; Remmel et al., 2003). These are likely to impact the development of emotional literacy (Brauer et al., 1998), causing relationship problems and social exclusion (Fellinger et al., 2009a), reduced self-esteem (Ridgeway, 1997), educational and employment opportunities (HMSO, 2004).

Fellinger et al. (2008) suggested that over the last decade living conditions of deaf children had changed due to early detection, new technologies and better integration into mainstream society. Therefore, they re-investigated levels of mental health and quality of life, finding that deaf children reported lower quality of life around interests and physical health against hearing counterparts. Specifically, children with severe hearing loss (as opposed to moderate or profound) were more likely to externalise their distress (e.g., have behavioural problems or display inattention/hyperactivity). Fellinger et al. (2008) concluded "this might reflect the social status of children with severe hearing impairments as neither being part of the signing deaf world nor being able to participate fully in communication with the hearing society" (p420).

Access to Mental Health Services for Deaf Children

Despite the higher prevalence of MHP's, there is underrepresentation of deaf children within generic Child and Adolescent Mental Health Services (CAMHS) (Beresford, Greco & Clarke, 2007; Greco, Beresford & Clarke, 2007; NDCS, 2005). Van Gent et al. (2007) suggested that under 10% of deaf children with diagnosable disorders had contact with mental health services, suggesting externalised distress may cause referrals to specialist schools rather than mental health services. For those who accessed mental health services, the skills needed to provide adequate services were questioned, as developing effective communication could take longer with this population and introducing an interpreter could change the dynamics and process of therapy, let alone considerations of culture (Beresford, Greco, Clarke & Sutherland, 2008; Bailley & Lauwerier, 2003; NDCS, 2005). In 1991 only one specialist

CAMHS for deaf children existed in England (London). In 2004, commissioning enabled expansion of services to two other sites across England (Midlands and Yorkshire), which then branched out into ten sites providing a national service for England in 2009. In a summary audit of people accessing these specialist services, it was apparent there were considerable delays (sometimes several years) between onset of MHP's and accessing support (Greco et al., 2009), usually precipitated by a move into specialist education, but delayed by funding. Below 50% were found to be supported by other services and under 25% accessed generic CAMHS prior to accessing the specialist service. As access to high quality, effective mental health services was a key standard of the Children's National Service Framework (DOH, 2004), a consultation document 'A Sign of the Times' (DOH, 2002) was produced as part of the plan to develop the national strategy 'Mental Health and Deafness: Towards Equity and Access' (DOH, 2005). This highlighted the need for further research to explore mental health needs of deaf children and understand what factors impact on or encourage deaf children's knowledge and engagement with mental health services.

Hearing Children's Views and Access to Mental Health Services

Research into views and behaviour around mental health service access has highlighted many factors around utilisation in hearing populations. Notably, mental health literacy (i.e., knowledge of symptoms and support) was reported as poor and often based on erroneous media representations (Ciarrochi, Wilson, Deane & Rickwood, 2003; Law, Sinclair & Fraser, 2007; Rickwood, Deane & Wilson, 2007; Rose, Thornicroft, Pinfold & Kassam, 2007). These misconceptions appeared to fuel stigma around people with MHP's and prevented help-seeking behaviour through fear of humiliation and discrimination (Corrigan & Watson, 2002; Gulliver, Griffiths & Christensen, 2010). Familiarity with services through positive first-hand or secondary (family and friends) experiences was often reported to reduce stigma and increase help-seeking intentions (Couture & Penn, 2003; Crisp & Rickwood, 2006; Sholl, Korkie & Harper, 2010). However, Spendlow and Jose (2010, p191) discussed help-seeking intention as being a complex decision-making process where the young person must answer questions such as “Is this really a problem?”, “Should I ask for help?”, “From whom should I seek this help?”, “Who is available?” and “Where can I find what I need?”.

Health beliefs influence behaviour (Millstein, Nightingale, Petersen, Mortimer & Hamburg, 1993), yet little research has been done around this in children (Haller, Sanci, Sawyer & Patton, 2008). Spendlow and Jose (2010) discussed beliefs around perceived severity (‘how bad’) and susceptibility (‘likelihood’) of MHP’s as important factors influencing help-seeking intentions, as the decision to displace stigma would balance against the level of perceived threat the MHP posed. However, they advised caution around ‘optimism bias’ (i.e., the ‘it will not happen to me’ effect) in analogue research around health beliefs, as until children experience MHP’s, they may believe themselves to be invincible from them and downplay the need to seek support.

Children’s doubts around help-seeking benefits have been researched (e.g., Barker, 2007), alongside issues around confidentiality (Jorm, Wright & Morgan, 2007; Leavey, Rothi & Paul, 2011), perception of therapists (Leong & Zachar, 1999) and caregiver support (Boldero & Fallon, 1995; Jorm et al., 2007). Specifically, Jorm et al. (2007) found that younger children turn to family for support around MHP’s and rely on them for direction towards further support. Adolescents, conversely, tended to turn to their GP’s. However, neither group were keen on eliciting the support of mental health professionals through embarrassment, low self-efficacy and confidentiality concerns. Therefore, regardless of the availability of services, if children have no confidence in using them they are rendered ineffective (Kendal, Keeley & Callery, 2011).

Deaf Children’s Views and Access to Mental Health Services

Only two studies have investigated the views of deaf adolescents towards generic mental health services, Freeman and Conoley (1986) and Haley and Dowd (1988). Freeman and Conoley (1986) surveyed the views of 96 hearing-impaired American college students

(16-37 years old) relative to perceived counsellor efficacy. Variables including training (PhD vs. BA), experience (none vs. 5 years), and client-therapist similarity (signing deaf counsellor vs. signing hearing counsellor vs. hearing-uses-interpreter counsellor) were explored for their relationship to perceived counsellor efficacy. Results showed that similarity to the therapist's signing ability (not hearing status) was the only significant factor in both appraisal of and willingness to see a counsellor. However, training type and experience were insignificant factors in either the appraisal of or willingness to see a counsellor, which they reported contradicted findings from similar hearing research (Spiegel, 1976). Although, use of an interpreter by an experienced counsellor reduced participants' appraisal of and willingness to see a counsellor below that of an inexperienced counsellor, as "to continue to choose to work with clients with whom one cannot communicate effectively is to risk the suspicion of that population" (Freeman & Conoley, 1986, p168). Therefore, they concluded this deaf population preferred signing professionals, regardless of hearing status, experience or qualifications, but were suspicious of experienced clinicians who continued to use an interpreter. Haley and Dowd (1988) conducted a similar analogue study, in which 106 deaf students (14-19yo) from the USA rated video recordings of two counsellors delivering sessions varying in hearing status (deaf/hearing) and communication method (sign/ interpreter/written). They too found no significance towards the professional's hearing status, only towards communication method, with preference towards signing professionals, but tolerance towards professionals using interpreters.

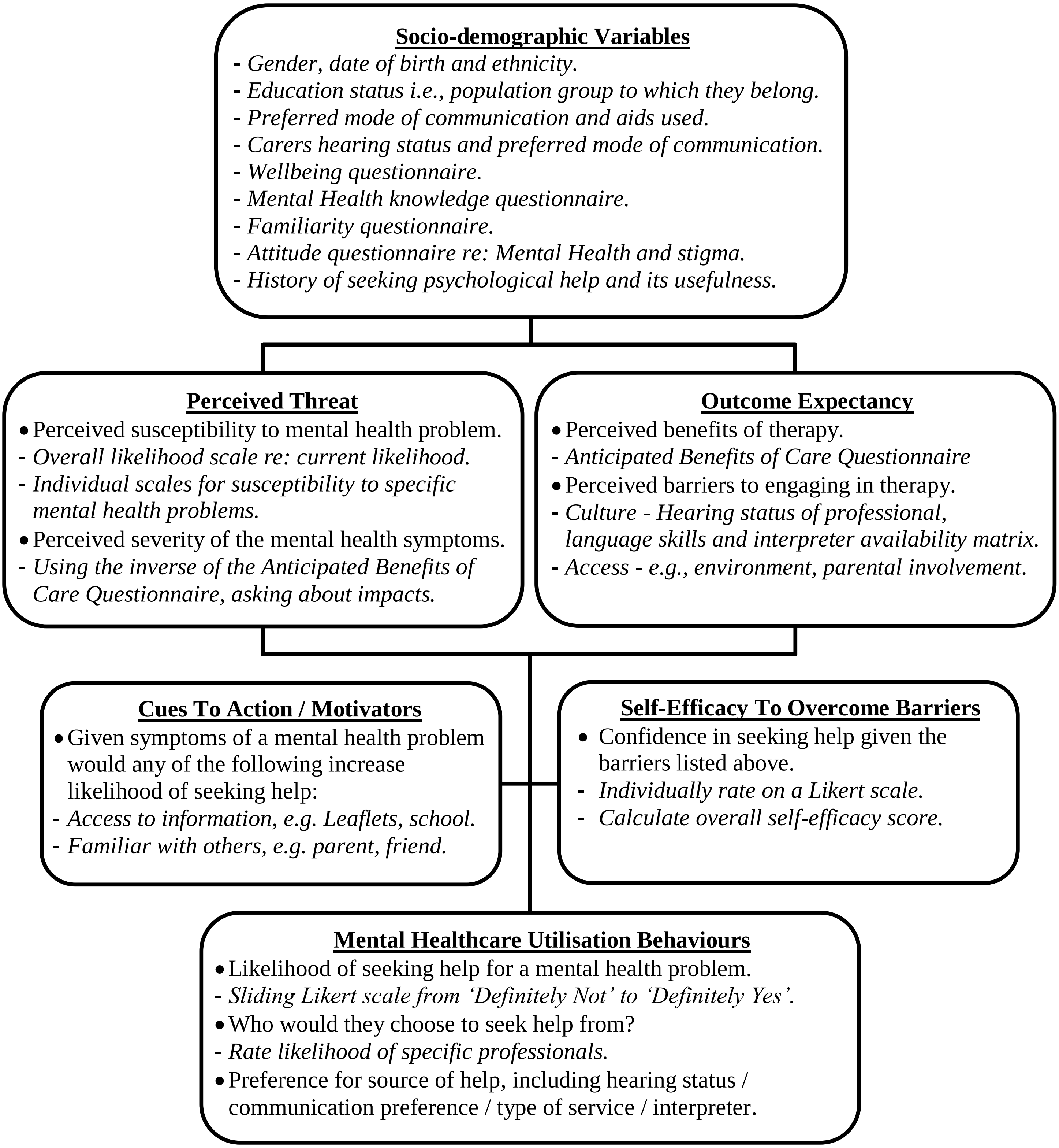
As little research had been done regarding help-seeking intentions of deaf children, literature from hearing populations was utilised in developing this study. Given that emotional literacy, opportunities for incidental learning and informative media accessibility is further limited in deaf children, the role of stigma could be greater for this population alongside the isolation and discrimination they experience due to their deafness in a hearing world. As the health beliefs of deaf children have not been previously researched, their threat perception of

MHP's is currently unknown. Considering their underrepresentation within services and negative experiences of CAMHS we would expect a greater impact on anticipated barriers and expected benefits. Conflicts around access and confidentiality could be confounded further with the introduction of interpreters and isolation they may feel from their hearing families/services. However, in a small sample of service user surveys around National Deaf (ND)CAMHS, many were positive about the specialist provision and had confidence in their clinicians to understand and help them and felt able to share feelings with them without embarrassment (Greco et al., 2009). Albeit some did express concerns about confidentiality, given the small size of the deaf community (Beresford et al., 2008). Thus, to increase utilisation we must explore services users' beliefs to tailor our services appropriately, but in doing so we must try to understand the deaf population's cultural beliefs about mental health services before we can improve access (Jorm et al., 2007; Spendlow & Jose, 2010).

Developing a Theoretical Basis

Given the limited evidence-base pertaining to the deaf community to steer this research, a theoretical basis from which to begin the exploration of help-seeking in deaf children was required (Wilson, Deane, Ciarrochi, & Rickwood, 2005). Henshaw and Freedman-Doan (2009) suggested the incorporation of social-cognitive models from health psychology into an understanding of help-seeking for MHP's and the Health Belief Model (HBM) was proposed. Described as a creative and innovative framework for exploring the preventative and help-seeking behaviours surrounding utilisation of mental health services (Smith, 2009), thus facilitating a clearer development of potential interventions (Noar & Zimmerman, 2005). Waite and Killian (2008) demonstrated this through application of the HBM to understanding barriers to help-seeking for depression amongst African American women. Not only did the HBM help to structure the content of their focus groups, but also it helped elicit information influencing participants' decisions to seek help that did not solely concentrate on constructs expected from a medical perspective.

The Mental Health Belief Model



Socio-demographic Variables

- *Gender, date of birth and ethnicity.*
- *Education status i.e., population group to which they belong.*
- *Preferred mode of communication and aids used.*
- *Carers hearing status and preferred mode of communication.*
- *Wellbeing questionnaire.*
- *Mental Health knowledge questionnaire.*
- *Familiarity questionnaire.*
- *Attitude questionnaire re: Mental Health and stigma.*
- *History of seeking psychological help and its usefulness.*

Perceived Threat

- Perceived susceptibility to mental health problem.
- *Overall likelihood scale re: current likelihood.*
- *Individual scales for susceptibility to specific mental health problems.*
- Perceived severity of the mental health symptoms.
- *Using the inverse of the Anticipated Benefits of Care Questionnaire, asking about impacts.*

Outcome Expectancy

- Perceived benefits of therapy.
- *Anticipated Benefits of Care Questionnaire*
- Perceived barriers to engaging in therapy.
- *Culture - Hearing status of professional, language skills and interpreter availability matrix.*
- *Access - e.g., environment, parental involvement.*

Cues To Action / Motivators

- Given symptoms of a mental health problem would any of the following increase likelihood of seeking help:
- *Access to information, e.g. Leaflets, school.*
- *Familiar with others, e.g. parent, friend.*

Self-Efficacy To Overcome Barriers

- Confidence in seeking help given the barriers listed above.
- *Individually rate on a Likert scale.*
- *Calculate overall self-efficacy score.*

Mental Healthcare Utilisation Behaviours

- Likelihood of seeking help for a mental health problem.
- *Sliding Likert scale from 'Definitely Not' to 'Definitely Yes'.*
- Who would they choose to seek help from?
- *Rate likelihood of specific professionals.*
- Preference for source of help, including hearing status / communication preference / type of service / interpreter.

Figure 1. The Health Belief Model (Henshaw & Freedman-Doan, 2009; adapted from Rosenstock, 1990). (Italicised items indicate how each construct was operationalised).

Aim

This research utilises the HBM (Figure 1) to explore the factors associated with help-seeking intentions for MHP's in a sample of deaf children. As an exploratory study, and in line with research conducted on hearing children, it can only be hypothesised that each of the HBM factors will have some relationship to the dependent variable of overall help-seeking intention for a MHP. Two schooling dimensions (children educated in Oral-Deaf[12] and Total Communication (TC)[13] environments) are considered in order to investigate whether help-seeking intentions are associated with integration into the deaf/hearing community and whether this is associated with a preference for accessing generic or specialist support[14]. It is hypothesised that children in the TC environment will have a stronger preference for specialist services, signing professionals and/or deaf professionals.

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[12] *An Oral-Deaf environment predominantly uses English in the classroom promoting oral communication, but does allow the use of sign language during personal time.*

[13] *A Total Communication (TC) environment uses multiple forms of communication including both English and sign language.*

[14] *A third schooling dimension (deaf children educated in a 'Mainstream' environment) was originally incorporated into the research, but limited access / response rate prevented them being incorporated into the final write-up.*

METHOD

Design

A non-randomised cross-sectional, online, questionnaire-based, survey design was used to collect data. An independent website, hosted on a secure server, delivered the questionnaires supported by embedded video files containing British Sign Language (BSL) translations of questionnaire items. This method was chosen to access the greatest number of participants from a geographically dispersed population. The online survey that was developed had added advantages of presenting accessible material to this specific population, which offered a bilingual approach, afforded confidentiality and a level of anonymity to responses, helped tailor the questionnaire to responses (gateway screens), and automatically validated factual information by immediate error checking. All responses were automatically collated into a statistical database for analysis. The research was approved by the Research Ethics Committee of the University of Birmingham (Appendix A).

Participants

Participants were recruited from two specialist secondary schools for deaf children (out of three accessing support from the local NDCAMHS). Participants were eligible for inclusion if they were aged between 11-19 years old and identified themselves as ‘deaf’. Participants were not excluded due to current or past psychiatric diagnoses or support, as there is a limited evidence base for psychiatric diagnoses in deaf children, and excluding participants on this basis would have contradicted the aim of exploring the intentions of deaf children towards seeking help for MHP’s. Participants were excluded if their age fell outside of the parameters, as younger children may not have had the literacy competence to complete the questionnaires and older children would have fallen outside of the referral criteria of NDCAMHS. All children under 16 were required to have parental consent, so participants were excluded in the absence of this.

Table 1: *Summary of Demographic Information*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
Participants N (%)	186	128 (69)	58 (31)
Age Mdn	15.50	15.50	15.50
(IQR)	(13.75-17.10)	(13.67-16.98)	(14.06-17.19)
Gender	60% Male	58% Male	65% Male
Ethnicity	79% White	78% White	79% White
Audiological Aids Used			
- Hearing Aids	52%	52%	52%
- Cochlear Implants	40%	47%	26%
- Nothing	8%	1%	22%
Preferred Communication Style			
- Sign Language	21%	6%	53%
- Sign & Speech	26%	23%	33%
- Sign or Speech	41%	53%	14%
- Speech	12%	18%	0%
Primary Carers Hearing Status			
- Deaf	10%	7%	17%
- Hearing	69%	76%	53%
- Some Deaf / Some Hearing	21%	17%	29%
Primary Carers Communication Style			
- Sign Language	13%	7%	26%
- Speech	50%	65%	17%
- Sign & Speech	37%	28%	57%

A total of 186 deaf children (62% response rate) aged from 11-19 years (*Mdn*=15.50, *IQR*=13.75-17.10) were included (60% male, 79% White). 52% used hearing aids and 40% had cochlear implants, with the majority preferring to switch between signing or speaking depending on the recipient (41%). The majority had exclusively hearing primary caregivers (69%), who predominantly communicated using speech (50%). Participants were subdivided into two groups: 69% of participants were from an Oral-Deaf environment (60% response rate) and 31% from a Total Communication (TC) environment (68% response rate). Across the two groups, participants were comparable in age (U=3565, p=0.67), gender (X^2=0.99, p=0.32) and ethnicity (X^2=3.58, p=0.61). However, participants preferences towards communication aids (X^2=29.19, p<0.001) and communication style (X^2=69.52, p<0.001) differed significantly between the groups, with the Oral-Deaf group being more likely to use cochlear implants and the TC group having a preference for using sign language. Similarly, there was a significant difference between the hearing status (X^2=9.76, p=0.01) and predominant communication (X^2=37.97, p<0.001) of participants' caregivers, with the Oral-Deaf group having a higher proportion of exclusively hearing caregivers and the TC group having more participants with at least one deaf caregiver. Predominant caregiver communication for the Oral-Deaf group was speech, but a mixture of sign and speech for the TC group (Table 1).

Procedure

Questionnaire Development

As very few questionnaires were available that were standardised on adolescents, and no available questionnaires standardised on deaf people, advice on questionnaire selection and methodology was sought from Professor Turner, Chair of Interpreting and Translation Studies at Heriot-Watt University (personal communication, May 2010) and Young and Hunt (2011). Initially, a range of questionnaires were identified from published literature that potentially mapped onto the constructs of the HBM and were deemed useful for further screening. A team of mental health professionals[15], including those who worked specifically for NDCAMHS and had fluency in BSL, including native signers, reviewed the questionnaires for use with a sample of deaf children and considered their viability for translating into BSL. As a result, a collection of questionnaires was developed, from which those that mapped most closely onto the relevant constructs contained within the HBM were chosen. Questionnaires

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[15] Table 2: *Experience/Qualification of Professionals involved in Questionnaire Development.*

Designation	**CAMHS Experience**	**BSL Experience***
^Trainee Clinical Psychologist	5 years	Level 2
Child Clinical Psychologist	12 years	None
^Child Clinical Psychologist	8 years (5 in deafness)	Level 3, completing NVQ Level 6
Child Clinical Psychologist	9 years (prior work in deafness > 13 years)	Level 2
Family Support Worker (deaf)	7 years (7 in deafness)	Native
^Family Support Worker (deaf)	3 years (3 in deafness)	Native, completing NVQ Level 6
^Qualified Interpreter	8 years (8 in deafness)	Member of the Register of BSL/English Interpreters (MRSLI) since 1991

**British Sign Language is a registered language and Signature (previously CACDP) provide accredited courses including Level 1 (Elementary), Level 2 (Intermediate), Level 3/NVQ 3 (Advanced), NVQ Level 6 (formerly NVQ Level 4 and language level required for BSL/English Interpreting).*

that were not standardised were adapted into language that was more conducive for BSL translation and any missing sections of the HBM had questionnaires developed to assess the relevant constructs. This necessitated the incorporation of sliding Likert scales for most questions, where individuals would drag a slider between two extremes indicating a level of opinion, to later be converted into a percentage. This response method was chosen as NDCAMHS staff suggested deaf children struggle to make definitive ‘Yes/No’ responses (often defaulting to ‘Don’t Know’) and could become confused when asked to choose a point on a definitive point-scale. Once the provisional package of questionnaires had been collated, it was again reviewed by the research team.

British Sign Language Translations of the Questionnaires

Upon completion of the questionnaire pack, a group of professionals (Table 2^) met to begin translation of the individual questionnaires. Each question was considered systematically and provisional translations were proposed and discussed in terms of congruence with the original wording of the question, fluidity in BSL production and accessibility to children. Once a single translation was agreed, written notes were recorded detailing the manual production of each question and the BSL translation was filmed as a draft. Sometimes, this involved modifying the English terminology or multiple signed versions being recorded. Occasionally, consultation around the correct signs to use politically (i.e., Rabbi, Imam), geographically (i.e., school, nurse) and grammatically was sought. Once completed, all translations were finalised and videoed by the interpreter. This video was then reviewed by a second deaf professional, who noted down the back-translation of the BSL version of the questions. The two written forms of questions were then compared and anomalies discussed. The second reviewer was then involved in developing more accurate translations of anomalies found and the interpreter recorded them. The original team then back-translated these from film and compared them with the original written form of the questionnaires. This process was repeated until both teams were satisfied that the BSL version of the questionnaire was an accurate representation of the written questions.

Website Development

As generic software for creating surveys was not compatible with all the requirements for this online survey, an independent website designer was employed to create a bespoke website to host the survey. Many of the questions were supported with visual aids, such as images of the items being discussed, as well as embedded BSL video files of the translations of the questionnaires. This was coded to gather multiple data sets simultaneously into a spreadsheet, which could then be exported for statistical analysis. The website security met the standards of, and was accepted by, the University of Birmingham. The website can be seen at www.MH4D.co.uk.

Pilot Study

Four deaf children (2 male, 2 female, aged 11-18) known to the researcher were approached from participating schools and invited to be part of a pilot study (all assented and parental consent was given). Each completed the online questionnaire and was asked to comment on the content of the questionnaire, its delivery, the accuracy of the BSL translations, and views on anything they considered to be missing. A small number of minor amendments to the sequence of the familiarity and preference questions were suggested, as well as clearly highlighting the differences between two similar sets of questions, in order to ease the flow through the questionnaire. The website was amended accordingly prior to formal data collection.

Recruitment

Research facilitators, who work for NDCAMHS and therefore had access to specialist schools for deaf children, approached potential schools and provided them with a copy of the research proposal. Each school was asked to contact the principal investigator to express an interest in the research. The principal investigator then contacted the interested schools and provided them with further information about the research, before obtaining formal consent for their involvement (Appendix B). As the two consenting schools held blanket research consent forms for their pupils, an opt-out consent model was adopted, where the school acted in '*loco-parentis*' for the participants if parents/carers had no objections following being informed of the project. Teachers were asked to distribute information about the project to participants and parents (Appendices C, D & E). Schools were then asked to agree dates where the principal investigator could attend the school to complete the online data collection. This was done on a whole class basis, within a Personal, Health and Social Education (PHSE) lesson. There was a minimum of a two-week window between recruitment and data collection to allow participants and parents to request further information about the project.

Data Collection

Data were collected through a classroom-based lesson, via individual computer access. Each participant was directed to the website hosting the research questionnaires. They initially completed an electronic consent form (Appendix F) before proceeding onto the questionnaire package. All participants completed the questionnaires concurrently with other peers in the class. This took approximately 20-30 minutes to complete. Participants who opted-out were given an alternative activity by their teacher to complete, so as not to be excluded from their normal lesson. Following completion of the questionnaires, each participant and their parents were presented with debrief information (by hand or posted), which gave details of how to contact the principal investigator if they had any questions about the research, as well as details of local mental health services and other freely available sources of support should participants need to talk to someone (Appendices G & H).

Materials

All participants completed the online questionnaire pack that included measures designed to map onto the constructs included within the HBM (see Appendix I). Initially, participants provided demographic information pertaining to their date of birth, gender, ethnicity, type of education (Group 1-Oral-Deaf or 2-TC), preferred mode of communication and any aids they use to communicate, family hearing status and preferred mode of communication, and their history of seeking psychological help and its perceived usefulness. They then completed the following questionnaires, presented in the same order. A short summary regarding their preferences towards hearing/signing status of mental health professionals, generic/specialist services and use of interpreters was included at the end.

Familiarity Scale (Holmes, Corrigan, Williams, Canar & Kubiak, 1999)

This 5-item scale assessed the familiarity an individual had to people with MHP's. Participants rated the quantity of contact they had with people with MHP's by choosing one of four levels of familiarity (e.g., 1-'I don't know anyone'; 2-'Someone on TV or in a magazine'; 3-'Someone I see regularly' or 4-'Family or a close friend'), and then rated the quality of this contact on a percentage Likert-scale from 0-'Extremely negative' to 100-'Extremely positive'. A total familiarity score was calculated by multiplying quantity with quality, giving a potential score range between 0-400. Higher scores indicate more familiarity and positive contact.

Wellbeing Questionnaire: Kidscreen-10 (Ravens-Sieberer, 2004)

This 10-item questionnaire is a well-recognised screener for subjective health and wellbeing in children and adolescents between 8-18 years (published α=.82). Participants rated several statements pertaining to their wellbeing over the preceding week (e.g., 'In the last week I have felt fit and well') on a five-point Likert scale (i.e., 1-'Not at all', 2-'Slightly', 3-'Moderately', 4-'Very' or 5-'Extremely'). After reverse-scoring relevant items, all items were scored 1-5, giving a potential score range between 10-50. Higher scores indicated better perceptions of wellbeing. Cronbach's alpha was .70.

Mental Health Knowledge Questionnaire (based on Pinfold et al., 2003; Watson et al., 2004)

This 10-item questionnaire assessed mental health knowledge around the causes and effects of MHP's. Participants indicated their agreement relative to ten different statements (e.g., 'teenagers with mental health problems can become violent'; 'depression is the same thing as being sad'). For the purposes of this study, an additional item was included alongside the nine original statements asking participants about their knowledge of the higher prevalence of MHP's in deaf children. Items were rated 'Yes', 'No' or 'Don't Know' and scored one point for a correct answer and zero for an incorrect response or a 'Don't Know' response, giving a score range between 0-10. Higher scores indicated better mental health knowledge. As the Cronbach's alpha (α=.56) was below an acceptable standard, whether including or discarding the additional item, this measure was discarded from further analysis.

Attitudes Questionnaire (based on the AQ-8-C; Corrigan et al., 2005)

This 9-item questionnaire assessed attitudes towards people who have MHP's (published α=.70). Participants considered the statement 'If a student in my class had a mental health problem then…' relative to nine statements (e.g., 'How likely is it that you would help them'). Each of the statements were rated on 9-point semantic-differential scales from 1-'Not at all' to 9-'Very Much'. For the purposes of this research, and based on findings from previous research that children and young people can perceive individuals with MHP's as being both a danger to themselves and/or to others, the perceived dangerous item (previously one item), was separated into two. Specifically, separate items asked 'How dangerous do you think they would be to others?' and 'How dangerous do you think they would be to themselves?' After reverse-scoring relevant items, a score was derived ranging from 9-81. Higher scores indicated more negative and stigmatising attitudes towards people with MHP's. The Cronbach's alpha was .65.

Perceived Susceptibility Questionnaire

This 8-item questionnaire, bespoke for this study, assessed perceptions of susceptibility to MHP's. Participants considered the likelihood of developing a MHP (e.g., 'Whilst I am a teenager, I think that I will get a mental health problem') and then specific problems (e.g., 'Whilst I am a teenager, I think that I will have problems with: anxiety; depression; etc) prevalent in the referrals to NDCAMHS. Items were scored on a percentage Likert-scale from 0-'Definitely No' to 100-'Definitely Yes'. Items were summed, giving an overall score between 0-800. Higher scores indicated greater perceived susceptibility to MHP's. Cronbach's alpha was .83.

The Anticipated Benefits of Care Questionnaire (ABC; Warden et al., 2010)

This 10-item questionnaire was used twice within this study. Initially, it assessed perceived severity MHP's would have upon participants and, secondly, it assessed perceived benefits of help-seeking for MHP's (published α=.90-.92). For perceived severity, participants contemplated the question 'If I had a mental health problem, it would stop me…' and then rated ten statements (e.g., 'Going to School'; 'Feeling Good about Myself') on a percentage Likert scale from 0-'Strongly Disagree' to 100-'Strongly Agree'. Items were totalled giving a score between 0-1000. Higher scores indicated higher perceived severity (i.e., impact). Cronbach's alpha was .89. For perceived benefits, participants contemplated the question 'If I got help for a mental health problem, I would be able to…' and rated the same ten statements on a percentage Likert scale. Items were summed giving a total possible score between 0-1000. Higher scores indicated better expectation around seeking help for MHP's. Cronbach's alpha was .92.

Perceived Barriers to Help-Seeking Questionnaire

This 11-item questionnaire, compiled from literature around deafness and pilot study responses, assessed views on what might prevent an individual from accessing support. Individuals considered the statement 'If I had a mental health problem, how difficult would I find getting help if…' and were then asked them to rate their view on eleven potential barriers (e.g., 'the person who I spoke to…': '…was hearing and could not sign'; '…used an interpreter'; '…had to inform my parents'; '…came to talk to me at school') on a percentage Likert scale from 0-'Not at all Difficult' to 100-'Very Difficult'. Items were summed giving a score between 0-1100. Higher scores indicated stronger barriers to mental health support. Cronbach's alpha was .71.

Self-Efficacy Questionnaire (based on guidelines produced by Bandura, 1977)

Based on guidelines produced by Bandura (1977), this 11-item questionnaire assessed individual's self-efficacy towards help-seeking for MHP's. It utilised the same eleven barriers (described above), but asked individuals to consider the statement 'If I had a mental health problem, how confident would I be that I could still get help despite…' and then asked them to rate the same statements on a percentage Likert scale from 0-'Not at all Confident' to 100-'Very Confident'. Items were summed giving a total score between 0-1100. Higher scores pertained to higher self-efficacy towards overcoming barriers to mental health support. Cronbach's alpha was .69.

Cues to Action Questionnaire

Based on the available literature and the results from the pilot study, this 7-item questionnaire assessed usefulness of different sources of motivation (i.e., triggers to help-seeking) that could highlight an individual's need to help-seek. Individuals considered the statement 'If I thought I had a mental health problem, the following would help me to talk to someone about it…' then rated their views on different sources of motivation (e.g., 'reading a leaflet'; 'being taught at school') on a percentage Likert scale from 0-'Not at all Helpful' to 100-'Very Helpful'. Items were summed giving a total score between 0-700. Higher scores pertained to better view of sources of motivation around MHP's. Cronbach's alpha was .77.

Overall Likelihood Questionnaire (used in Begum [unpublished])

This 11-item questionnaire, used previously in research exploring stigma and help-seeking in samples of children and young people by the research supervisor involved in this study, assessed overall likelihood of help-seeking intention for MHP's alongside specific likelihood of different sources of support. Individuals considered the statement 'If I had a mental health problem, I would talk to someone about it' as well as asked 'If I had a mental health problem I would talk to:' and then rated their views of different support sources (e.g., G.P; Psychologist; Teacher) on a percentage Likert scale from 0-'Definitely No' to 100-'Definitely Yes'. The overall likelihood was taken as a value on its own as the target variable for this study. However, specific items were summed giving a total score between 0-1000. Higher scores pertained to higher intentions to seek support should they develop MHP's.

Development of the Health Belief Model Constructs

Within the research community any questionnaire with an internal reliability below 0.6 is considered 'poor', above 0.7 'acceptable' and in-between 'questionable' (George & Mallery, 2003). Therefore, scales with a coefficient below 0.6 were discarded and those with questionable reliability interpreted with caution. All questionnaires used to develop the HBM constructs had good internal reliability and so were retained in this study (Table 3). Therefore, in accordance with previous studies (Bond, Aiken, & Somerville, 1992) the perceived susceptibility and the ABC-perceived severity questionnaires were combined to produce the perceived threat (PT) construct. Cronbach's alpha for this scale was .87. Similarly, the ABC-perceived benefits and the inverse of the barriers to help-seeking questionnaire were combined to produce the outcome expectancy (OE) construct. Cronbach's alpha for this scale was .81. These variables, combined with self-efficacy (SE) and cues to action questionnaires, made up the four-factor model of the HBM (Figure 1).

Table 3: *Internal Reliability for Questionnaires used within this research measured by Cronbach's Alpha*

Scale	**Items (Scale)**	**Alpha**	**M* (Mdn)**	**SD (IQR)**	**Sample Item**
Wellbeing Questionnaire: Kidscreen-10	10 (1-5)	0.70	3.75	0.53	In the last week I have felt fit and well.
Mental Health Knowledge Questionnaire	10 (Y/N/DK)	0.56	(4)	(3-6)	Depression is the same thing as being sad.
Attitudes Questionnaire	9 (1-9)	0.65	(4.56)	(3.67-5.44)	If a student in my class had a mental health problem, how likely is it that I would help them?
Perceived Susceptibility Questionnaire	8 (0-100)	0.83	(34.81)	(13.56-49.81)	Whilst I am a teenager, I am likely to get depressed.
The Anticipated Benefits of Care Questionnaire – Perceived Severity	10 (0-100)	0.89	(50.75)	(35.38-70.00)	If I had a mental health problem, it would stop me going to school.
The Anticipated Benefits of Care Questionnaire – Perceived Benefits	10 (0-100)	0.92	(75.85)	(59.40-91.65)	If I got help for a mental health problem, I would be able to go to school.
Perceived Barriers to Help-Seeking Questionnaire	11 (0-100)	0.71	43.32	17.64	If I had a mental health problem, how difficult would I find getting help if the person who I spoke to was hearing and could not sign?
Self-Efficacy Questionnaire	11 (0-100)	0.69	(58.14)	(49.61-68.11)	If I had a mental health problem, how confident would I be that I could still get help despite the person who I spoke to being hearing and not able to sign?
Cues to Action Questionnaire	7 (0-100)	0.77	(60.07)	(48.61-74-75)	If I thought I had a mental health problem, the following would help me to talk to someone about it: reading a leaflet.

***Means (Medians) are adjusted to show comparable mean (median) of the average score on each scale within each questionnaire**

Analysis

Data were analysed using SPSS. Checks for normality and skewedness of data were conducted, and appropriate parametric or non-parametric analyses applied. Demographic information was summarised with descriptive statistics for the overall sample and then separated between the groups (Group 1 = Oral-Deaf; Group 2 = Total Communication) for comparison via inferential statistics. History of MHP's and previous help-seeking behaviour, as well as preferences for sources of support, were summarised using descriptive and inferential statistics. A correlation matrix assessed the relationship between all variables and a hierarchical multiple regression was conducted to evaluate the association of the HBM constructs to the target variable of help-seeking intention. A significant *p*-value of 0.05 was used throughout, except for inter-correlations, where a more conservative *p*-value of 0.01 was used to control for type-1 error.

RESULTS

The results are presented in four sections: (1) analysis of participants history of MHP’s and their help-seeking behaviours, (2) summary of mental health support preferences for this population, (3) correlation matrix reporting on the relationships between variables, and (4) hierarchical multiple regression analysis examining the relationship between the HBM components and the target variable of help-seeking intentions.

History of Mental Health Problems and Help-Seeking Behaviour

Table 4: *History of Mental Health Problems and Help-Seeking Behaviour*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
History of MHP N (%)	36 (19%)	15 (12%)	21 (36%)
- Discussed their MHP	89%	87%	91%
- % Helpfulness Mdn (IQR)	83.5 (63 - 100)	87 (60-100)	79 (60-100)
Frequency of Professionals Mdn (IQR)	4 (2-5)	4 (2-6)	4 (2-5)
- Family Member	72%	69%	74%
- Friend	62%	69%	58%
- Teacher/TA	62%	69%	58%
- GP/Doctor	47%	39%	53%
- School Nurse	44%	30%	53%
- Psychologist/Psychiatrist/CAMHS	34%	39%	32%
- Independent Counsellor	31%	30%	32%
- School Counsellor/Mentor	25%	15%	32%
- Other	19%	23%	16%
- Religious Person	16%	15%	16%

In the overall sample of 186 young people, 19% reported experiencing a MHP and of those, the vast majority (89%) had discussed this with someone and reported positive perceptions of helpfulness (*Mdn*=83.5, *IQR*=63-100). Many participants reporting a history of MHP’s discussed their MHP’s with more than one individual (*Mdn*=4, *IQR*=2-5). In terms of whom they had spoken to about their MHP’s, most cited family members (72%), friends (62%), teachers (62%) and GP/doctors (47%). However, only a third (34%) of those reporting having talked to someone cited a mental health professional. A significantly higher proportion of participants from the TC group reported they had experienced MHP’s (X^2=29.19, p<0.001) in comparison to the Oral group. However, there was no difference between groups in terms of the number of children who had sought support (X^2=0.13, p=0.72), the number of individuals from whom support was sought (U=121, p=0.92), and perceptions of helpfulness (U=115, p=0.74) (Table 4).

Preferences for Support around Mental Health Problems

Overall, the majority of participants did not express a preference towards the hearing status (58%) or mode of communication (45%) of the professional. There was no overall consensus towards generic or specialist services or opinion towards the use of an interpreter. However, in comparing the Oral and TC groups, a significant difference in preference towards hearing professionals (X^2=8.84, p=0.01) was found, with very few of the TC group opting specifically for hearing professionals. Although not significant (perhaps due to limited power of the sample size) communication preference trended away from speaking professionals for the TC group (X^2=5.11, p=0.08). Similarly, the preference towards generic or specialist services (X^2=5.46, p=0.02) and interpreters (X^2=9.81, p<0.001) differed significantly between the groups, with the TC group opting more towards specialist services and using interpreters, with the Oral-Deaf group less desiring of interpreters (Table 5).

Table 5: *Preferences for Support around Mental Health Problems*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
Hearing Status of Professional			
- Deaf	27%	27%	28%
- Hearing	15%	20%	3%
- Either	58%	53%	69%
Communication Mode of Professionals			
- Signs	29%	27%	33%
- Speaks	26%	31%	15%
- Either	45%	42%	52%
Service			
- Generic CAMHS	49%	55%	36%
- Specialist National Deaf CAMHS	51%	45%	64%
Interpreter Use			
- Yes	47%	39%	64%
- No	53%	61%	36%

Relationships between Variables[16]

Inter-correlations were used to explore relationships between demographic, HBM, and help-seeking intention variables. Within this study, no significant correlations were found between overall help-seeking likelihood for MHP's and any demographic variables used (i.e., age, gender, subjective wellbeing, history of MHP's, familiarity to people with MHP's and attitude towards those with MHP's). In terms of the HBM constructs, there were significant, albeit weak, correlations between overall help-seeking likelihood and perceived benefits (Rs=0.26, p<0.001); outcome expectancy (Rs=0.26, p<0.001); cues to action (Rs=0.26, p<0.001) and self-efficacy (Rs=0.19, p<0.01). Thus, participants were more likely to report help-seeking if they believed receiving support would be beneficial, they could overcome any barriers and motivating factors were present. Similarly, perceived benefits (Rs=0.33, p<0.001), outcome expectancy (Rs=0.25, p<0.001) and self-efficacy (Rs=0.23, p<0.001) were also significantly but weakly-correlated with cues to action, indicating that belief in the benefits of help-seeking and confidence in taking action may influence receptivity to motivators. However, there was a significant, but weak negative correlation between self-efficacy and perceived barriers (Rs=-0.31, p<0.001), suggesting that confidence in help-seeking reduced as the number of perceived barriers to help-seeking increased. Understandably, perceived benefits and barriers to therapy showed strong significant correlations with outcome expectancy (Rs=0.71, p<0.00; Rp=-0.73, p<0.00, respectively) and perceived susceptibility and perceived severity (Rs=0.86, p<0.00; Rs=-0.57, p<0.00, respectively) with perceived threat, given that these scales (inverse for barriers) were combined to create the outcome expectancy construct. However, despite a positive relationship between perceived susceptibility and perceived severity of MHP's, neither these nor their combined construct of perceived threat related to help-seeking intention.

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[16] *Pearson Correlation (Rp), Spearman's Correlation (Rs), Pearsons Point-Biserial Correlation (Rpb), Phi-Coefficient (Rphi).*

There was a significant but weak correlation between gender and history of MHP’s ($Rphi=-0.19$, $p<0.01$), indicating more female participants reported a history of MHP’s. Participants reporting history of MHP’s had a significant, but weakly-correlated lower sense of wellbeing ($Rpb=-0.20$, $p<0.01$) and perceived themselves to be more susceptible and at threat from further MHP’s, with more moderate correlations ($Rpb=0.46$, $p<0.001$; $Rpb=-0.44$, $p<0.001$, respectively). As a higher proportion of participants from the TC group reported history of MHP’s than within the Oral-Deaf group, their overall sense of wellbeing ($Rpb=-0.25$, $p<0.001$) and perceived susceptibility/threat mirrored this ($Rpb=0.24$, $p<0.00$; $Rpb=-0.24$, $p<0.001$, respectively). Wellbeing also significantly, but weakly-correlated negatively with perceived susceptibility and threat ($Rs=-0.36$, $p<0.00$; $Rs=-0.37$, $p<0.00$, respectively). However, similarly to perceived susceptibility and threat, neither wellbeing nor history of MHP’s significantly correlated with overall help-seeking likelihood, suggesting it had little influence on help-seeking intention. Surprisingly, significant, but weak correlations suggested that participants who reported a history of MHP’s (and consequently the TC group) reported more negative attitudes towards others with MHP’s ($Rpb=0.27$, $p<0.001$; $Rpb=0.30$, $p<0.001$, respectively). Similarly, stigmatising views towards people with MHP’s correlated weakly with perceived severity ($Rs=0.26$, $p<0.001$) and perceived threat ($Rs=0.20$, $p<0.01$), indicating an association between fear and stigma. However, attitude significantly, but weakly negatively correlated with familiarity ($Rs=-0.25$, $p<0.00$), suggesting exposure to people with MHP’s reduced stigma, but was not associate with help-seeking intention (Table 6).

Table 6: *Correlation Matrix of Variables*

	Gender	**Group**	**Hx of MHP**	**Familiarity**	**Wellbeing**	**Attitude**	**Perceived Susceptibility**	**Perceived Severity**	**Perceived Benefits**	**Perceived Barriers**	**Perceived Threat**	**Outcome Expectancy**	**Self-Efficacy**	**Cues To Action**	**Overall Likelihood**
Age	-0.00^{c}	0.04^{c}	0.07^{c}	0.13^{b}	0.08^{b}	-0.13^{b}	0.02^{b}	0.04^{b}	0.02^{b}	0.03^{b}	0.02^{b}	0.02^{b}	0.00^{b}	-0.04^{b}	0.12^{b}
Gender		-0.07^{d}	**-0.19^{d}***	0.06^{c}	-0.06^{c}	0.07^{c}	0.13^{c}	0.07^{c}	0.07^{c}	0.00^{c}	0.16^{c}	0.02^{c}	-0.02^{c}	-0.01^{c}	0.09^{c}
Group			**-0.29^{d}****	-0.13^{c}	**-0.25^{c}****	**0.30^{c}****	**0.24^{c}****	0.17^{c}	0.02^{c}	0.08^{c}	**0.24^{c}****	-0.07^{c}	-0.06^{c}	-0.07^{c}	-0.02^{c}
Hx MHP				-0.13^{c}	**-0.20^{c}***	**0.27^{c}****	**0.46^{c}****	0.14^{c}	0.07^{c}	0.14^{c}	**0.44^{c}****	-0.09^{c}	-0.16^{c}	-0.01^{c}	-0.08^{c}
Familiarity					0.11^{b}	**-0.25^{b}****	-0.05^{b}	0.03^{b}	0.07^{b}	0.08^{b}	-0.03^{b}	-0.02^{b}	-0.05^{b}	-0.09^{b}	0.02^{b}
Wellbeing						-0.12^{b}	**-0.36^{b}****	-0.14^{b}	-0.08^{b}	0.02^{a}	**-0.37^{b}****	-0.06^{a}	-0.05^{b}	0.02^{b}	0.07^{b}
Attitude							0.12^{b}	**0.26^{b}****	0.04^{b}	0.12^{b}	**0.20^{b}***	-0.08^{b}	0.02^{b}	-0.03^{b}	-0.06^{b}
Perceived Susceptibility								**0.19^{b}***	0.02^{b}	-0.02^{b}	**0.86^{b}****	0.01^{b}	-0.14^{b}	0.03^{b}	-0.04^{b}
Perceived Severity									-0.07^{b}	-0.01^{b}	**0.57^{b}****	-0.04^{b}	-0.10^{b}	-0.13^{b}	-0.00^{b}
Perceived Benefits										-0.17^{b}	-0.02^{b}	**0.71^{b}****	0.14^{b}	**0.33^{b}****	**0.26^{b}****
Perceived Barriers											-0.04^{b}	**-0.73^{a}****	**-0.31^{b}****	-0.07^{b}	-0.15^{b}
Perceived Threat												-0.00^{b}	-0.11^{b}	-0.04^{b}	-0.03^{b}
Outcome Expectancy													**0.21^{b}***	**0.25^{b}****	**0.26^{b}****
Self-Efficacy														**0.23^{b}****	**0.19^{b}***
Cues To Action															**0.26^{b}****

^{a}Pearson Correlation, ^{b}Spearman's Correlation, ^{c}Pearsons Point-Biserial Correlation, ^{d}Phi-Coefficient.
****Significant to 0.01, **Significant to 0.001.***

Hierarchical Multiple Regression Analysis

Having developed the four-factor HBM constructs and accounted for any nuisance variables, data was entered into a hierarchical multiple regression analysis (Cohen & Cohen, 1983) in order to estimate individual and combined influence of the HBM constructs on the target variable of help-seeking intention (as suggested by Bond et al., 1992). Each component of the HBM (Perceived Threat, Outcome Expectancy, Self-Efficacy, Cues To Action) was entered initially, followed by the six two-way interactions (PTxOE, PTxSE, PTxCues, OExSE, OExCues, SExCue), two three-way interactions (PTxOExSE, PTxOExCue) as indicated by their mediating role in the HBM (Figure 1), and finally the full four-way interaction of all the components (PTxOExSExCue). Gains in prediction with increasing levels in the hierarchy are shown in Table 7. One-way interactions were significant in predicting 13% of the overall variance in overall help-seeking likelihood (R^2=0.13, F(4,181)=6.940, p<0.001). However, none of the other interactions improved the predictive power of the model.

Table 7: *Proportion Gain in Hierarchical Regressions Predicting Overall Likelihood from HBM Components, and their Interactions*

Linear Regression	**Interaction**	**R^2 Change**	**Significance**
Model 1	One-Way	0.13	**0.00***
Model 2	Two-Way	0.03	0.43
Model 3	Three-Way	0.00	0.87
Model 4	Four-Way	0.01	0.14

Significant to 0.001

Table 8 shows the breakdown of Model 1 and the relative association of the individual variables with overall help-seeking likelihood. Both outcome expectancy (β=0.243, p<0.001) and self-efficacy (β=0.202, p<0.01) significantly predicted help-seeking intentions. However, perceived threat and cues to action did not. Therefore, this study indicates that individuals holding a stronger belief in the benefit of help-seeking despite barriers, and being confident in their ability to overcome barriers to help-seeking are those more likely to report an intention to seek help.

Table 8: *Predictive Interactions of HBM Individual Components with Overall Likelihood.*

HBM Component	**B**	**Significance**
Perceived Threat	-0.048	0.50
Outcome Expectancy	0.243	**0.00****
Self-Efficacy	0.202	**0.01***
Cues to Action	0.014	0.85

***Significant to 0.01, **significant to 0.001**

DISCUSSION

As this study examined the views of 186 deaf children towards MHP's and help-seeking behaviour, it is currently the largest ever study conducted in this area. Putting the population into context, it should be noted that only 18% of deaf children across the UK attend a specialist deaf school (CRIDE, 2012), within which all of this population fall. Similarly, approximately 8% of deaf children across the UK use sign language, whether alone or alongside spoken English (CRIDE, 2012), whereas 88% of this population did. Therefore, these results are only generalisable to the minority population of children within specialist schools for the deaf. An attempt was made by this study to recruit a third group covering deaf children accessing mainstream education, but due to the disparate nature of this population and the limited response rate received, a representative sample could not be included into this study. Nevertheless, given the research design, there appears to be an accurate representation from across the age group, with gender and ethnic diversity of the population sampled similar to that of the population as a whole (i.e., males slightly more prevalent and Caucasians more than twice as likely than other ethnic minorities combined; Holt, Hotto & Cole, 1994).

As for audiological aids, 40% of this population reported wearing at least one cochlear implant, compared to 7% of the population of deaf children as a whole (CRIDE, 2012), which is an over-representation in itself. However, this figure may be under-represented as participants only had the option of stating whether they either use hearing aids or cochlea implants, whereas in hindsight we now know that many children have one cochlea implant and one hearing aid. This may indicate the level of deafness present in the population, as criteria for cochlea implants usually requires severe to profound deafness, or the type of schools participants were recruited from, as many children receiving implants are educated in oral environments (NICE, 2009). Similarly, historical research suggests that approximately 95% of deaf children are born to hearing parents (Hindley, 2005; Meadow-Orlans & Erting, 2000; Rawlings & Jensema, 1977), whereas only 69% of this population had both hearing parents. This could be lower due to the populations sampled as deaf parents are probably more likely to support their children in specialist deaf education than mainstream, as hearing parents might. This might explain the higher prevalence of participants having at least one deaf parent in the TC school than the oral deaf school (46% v 24%, respectively).

In looking at history of MHP's and previous help-seeking behaviour, only 19% of participants reported that they had previously experienced a MHP. This is much lower than the estimated average of 40% within the deaf population (Hindley, Hill, McGuigan & Kitson, 1994). This lower figure could be related to under-reporting on the part of the participants, as knowledge and understanding of MHP's in the deaf population were reported to be low (Steinberg, Sullivan, & Loew, 1998) or perhaps some children felt reluctant to disclose this through fear of it being overseen by peers within the class. However, it is important to note that a higher proportion of participants in this population had all or some deaf parents (31%) and all were placed in residential schooling environments where their communication needs were catered for, which reduces the impact of communication dissonance highlighted in the introduction as a contributing factor towards increased prevalence of MHP's. Similarly, this could account for the lower prevalence of MHP's in the oral group, as being able to communicate using both sign and speech in environments where speech is favoured gives added resilience.

Incidentally, the prevalence of participants disclosing a MHP seeking support was much higher than expected (89%), but then both these schools received direct provision from NDCAMHS, who have primed a network of trained caregivers around these participants to spot and manage MHP's. Similarly, Greco et al. (2009) noted that children coming into contact with specialist mental health services often went unnoticed until a specialist deaf school picked them up, so by nature of the research design we are likely to have more participants having accessed support than in the wider population. The fact that participants most often turned to family, friends and teachers for support is no surprise and mirrors that of research done into hearing children (Jorm et al., 2007). However, it was surprising to see that 34% had spoke to a mental health professional about their MHP, despite Van Gent et al. (2007) suggesting that less than 10% of deaf children had contact with mental health services. This may be credited to the intensive in-reach work provided by NDCAMHS into both participating schools.

Lack of preference for a deaf professional was not surprising, given that many studies found hearing status of professionals to be an insignificant factor in willingness to seek help for a MHP (Freeman & Conoley, 1986; Haley & Dowd, 1988; Munro, Knox & Lowe, 2008). The fact that the TC group significantly moved away from selecting the preference of hearing professional is only significant to show their shift towards a more flexible preference of either hearing or deaf rather than towards a more definitive decision. However, what was interesting was the trend towards preference for communication mode of the professional. It appears that both groups were split fairly equally between those preferring a professional who signs or speaks. Indeed perhaps there were factors influencing the decision that were unconsidered by the researcher, as during data collection a number of oral-deaf participants who preferred to communicate using sign language were noted to have preference for speaking professionals. Given their access to both forms of communication, some felt English was more consistently produced than sign language, which has regional variations. Perhaps this highlights the diversity of the deaf populations preferred communication modes and the need to consider wider categories than oral or signer. As for service preference, although there was no consistent, overall preference for support around MHP’s the TC did show a preference for specialist NDCAMHS and for the use of an interpreter. Whereas, the oral group were more notably divided between specialist provision and mainstream access, given the bilingual nature of their education, but were resistant to the presence of an interpreter, as their bilingual ability negates this.

Participants were highly willing to help-seek and thus less diverse in their distribution of help-seeking intention, skewing the dependent variable. Consequently, this narrows the scope of the dependent variable in providing a basis for comparison to other variables. Therefore, it was understandable when none of the demographic variables significantly correlated with the dependent variable, despite literature suggesting they should (i.e., Afifi, 2007; Crisp & Rickwood, 2006; Couture & Penn, 2003; Sholl et al., 2010; Wilson, 2007). What was noticeable is that there appeared to be a link between outcome expectancy, perceived benefits, cues to action and self-efficacy, further supported by the regression analysis, suggesting that an individual’s belief in receiving beneficial support and their confidence in help-seeking for themselves significantly contributed towards the restricted variance we saw in help-seeking intention. As the predictive variance was only low, we have to consider that either other factors are influencing help-seeking intention not covered by this study or that the dependent variable did not allow enough scope for this to be higher. As outcome expectancy and self-efficacy appeared most important to the notion of help-seeking, it was interesting to see they negatively correlated with each other, in that the higher impact of perceived barriers (one aspect of outcome expectancy) on an individual, the lower their self-efficacy. This was important, as through conducting the research many barriers were highlighted that were not included in data collection. For example, some participants highlighted cost of interpreters and confidentiality as barriers despite this responsibility falling onto services and not individuals, so this was not seen as a barrier when developing the research questions (Ferguson et al., 2009; Greco et al., 2009; Munro, et al., 2008). Similarly, other barriers missed were more psychological ones such as stigma and embarrassment, although this was picked up in earlier questions, it was not specifically stated in the barriers section, especially as the concept of stigma does not easily translate into sign language.

It was unusual to find that perceived threat did not correlate with help-seeking intention and was subsequently not significant in the regression analysis, as Spendlow and Jose (2010) had shown that hearing children are influenced in this way. However, neither variable was normally-distributed and so comparability of these variables was restricted. So, what is not clear is how the threat perception is skewed, being influenced by knowledge of higher prevalence of MHP's in deaf people, therefore at more threat or by 'optimism bias', thus being less concerned. Incidentally, threat of getting a MHP was linked to more stigmatising views of those with MHP's, as if naivety led to fear and loathing, which is similar to findings in the hearing community (Corrigan & Watson, 2002; Gulliver et al., 2010). Similarly, familiarity with people with MHP's reduced negative views, but did not influence the threat perception (Couture & Penn, 2003; Crisp & Rickwood, 2006; Sholl et al., 2010).

Limitations and Further Research

The HBM provided a useful framework onto which an exploration of the factors associated with help-seeking intention for MHP's was based. However, only 13% of the variance found in the (skewed) dependent variable of help-seeking intention was explained by an individual's belief in the benefit of support and confidence in overcoming any barriers. Although the initial hypothesis predicted that all of the predictive variables would influence the dependent variable as had been shown in research on hearing children, this was not the case. No demographic variable significantly interacted despite there being enough participants to show clear variance, which either suggests that there was a problem with the dependent variable or that this population did not mirror the pattern of behaviour that can be seen in hearing children (both of which are equally plausible). Similarly, of the constructs from the

HBM, only outcome expectancy and self-efficacy impacted on help-seeking intention, with these explaining such little variance it barely counts. Linked with the paucity of research into this population and their views on help-seeking behaviour, and the limitations highlighted in conducting this research throughout the discussion, it might be pertinent to employ some exploratory qualitative studies around this area, before attempting to collect data that maps onto constructs pertinent to the hearing population. Then perhaps more relevant constructs for the deaf community can be studied, providing more accurate and useful research.

Clinical Implications

Positive aspects that can be drawn from this research is that this study offers a lot of useful data regarding the preferences for mental health services provision for children in specialist deaf schools. It shows that this population do not have a preference between deaf or hearing professionals. They appear to be flexible in their preference for communication style of professional, in that the oral-deaf group are equally keen to be supported by a professional who signs or speaks and the TC group similarly so, but with the added dimension of an interpreter. The desire for specialist services comes more from the TC than the Oral-deaf group, who are split between specialist and generic services. What is most noticeable from this research is that even in such a small minority population, the range of preferences is diverse and that perhaps to consider their individual preferences and provide a range of options might be more useful.

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APPENDICES

[redacted]

APPENDIX B: Consent Form for Services

UNIVERSITY OF BIRMINGHAM

Title of research project: Mental Health and Wellbeing: The Views of Deaf Children.

Name of chief investigator: Nicola Silvester, Trainee Clinical Psychologist

Names of supervisors:
Dr Gary Law, Clinical Psychologist and Academic Tutor
Dr Sarah Kent, Clinical Psychologist
Dr Sylvia Glenn, Chartered Clinical Psychologist

I have been given information about this research project and understand the purpose of the project and the extent to my involvement. ☐

I have had the opportunity to ask questions or raise any concerns and these have been responded to appropriately. ☐

I understand that I have the right to withdraw my involvement at any time, without giving reason and my rights will not be affected by this. ☐

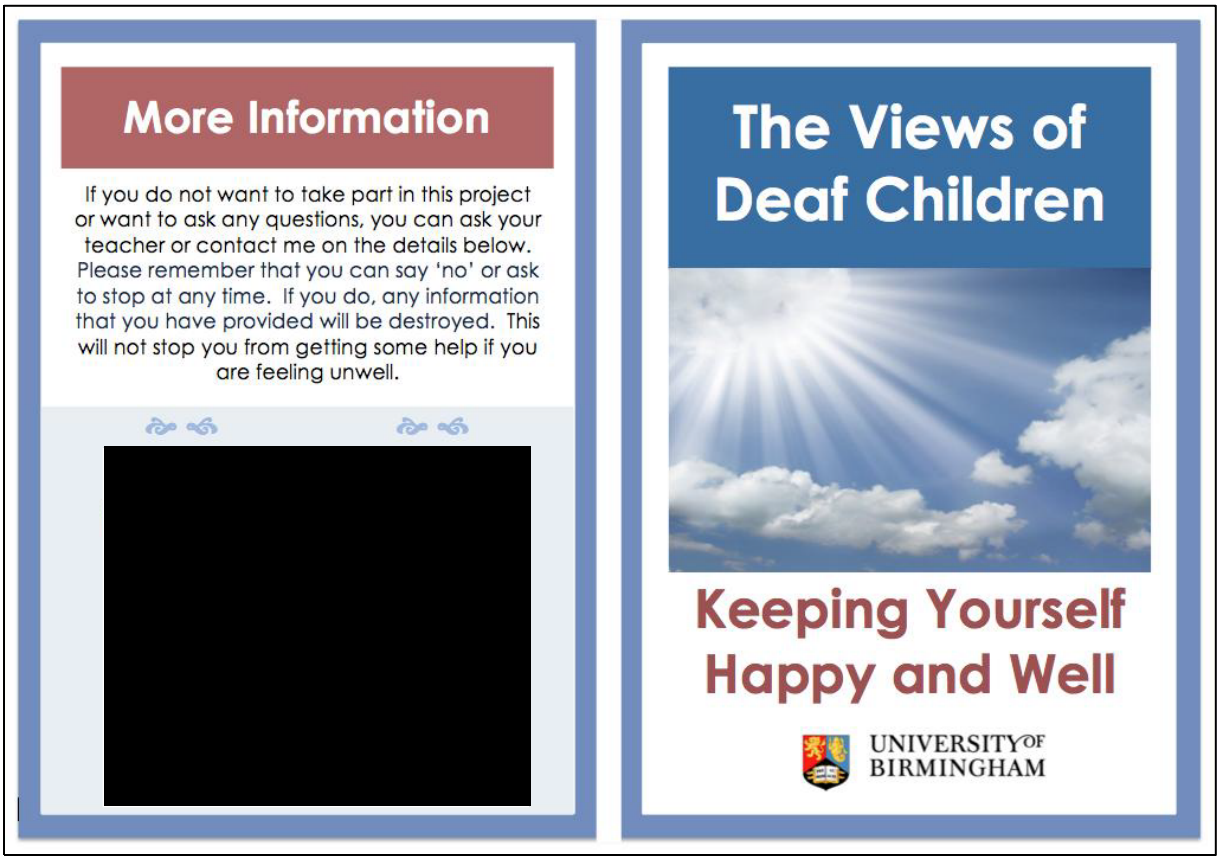
I agree to assist with the data collection process for the above project in the manner that has been discussed. ☐

……………………………………………… …………………… ………………………….........
Name of Staff Date Signature

………………...………………………… ………………………………...……………………
Title Name of Service

………………………………………… ……………… ………………………………..…
Name of Researcher Date Signature

APPENDIX C: Information Leaflet for Participants



More Information

If you do not want to take part in this project or want to ask any questions, you can ask your teacher or contact me on the details below. Please remember that you can say ‘no’ or ask to stop at any time. If you do, any information that you have provided will be destroyed. This will not stop you from getting some help if you are feeling unwell.

[redacted]

The Views of Deaf Children

Keeping Yourself Happy and Well

UNIVERSITY OF
BIRMINGHAM

Hello, my name is Nicola Silvester

I work as a Trainee Clinical Psychologist at the University of Birmingham

I am doing a project about children who are deaf. I will be working with other psychologists called Gary, Sylvia and Sarah. We would like to know what children who are deaf know about mental health problems. Your school has chosen to be involved in this project. This leaflet will tell you a little more about the project. This project will be part of my university qualification.

Questions & Answers

What are Mental Health Problems?

These sometimes include feeling angry, worried, scared or sad more than others.

Why have I been chosen to take part?

Your school is taking part in this project. Through them we have got in touch with you and your classmates. We would like to ask you all some questions about mental health problems.

More Q&A

Do I have to take part?

It is up to you to decide whether you would like to take part. If you decide that you do not want to take part, just say ‘no’. Even if we have already started asking you questions, you can ask to stop. You will not get into trouble.

What will I have to do if I agree?

You will be asked some questions about what you know about mental health problems. This will be done on the computer, in a lesson at school. This will take 20-30 minutes to complete.

What are the benefits of taking part?

Your views will help us to support children who are deaf when they have a mental health problem. If you complete the questions and enter the prize draw you could win a tablet computer, a digital camera, DVD’s or vouchers.

Are there any disadvantages to taking part?

No, we do not expect that the questions will upset you. However, if you become upset, we will be there to support you. If we are worried about you, we may contact your parents.

What happens when the project is finished?

We will write a report and send a copy to your school that you can look at.

APPENDIX D: Information Letter for Parents

UNIVERSITY OF
BIRMINGHAM

[redacted]

Hello,

My name is Nicola Silvester, I am a Trainee Clinical Psychologist at the University of Birmingham. I am doing a project with children who are deaf, to find out what they know about mental health problems. Your child's school has agreed to take part in this project. I have enclosed a leaflet that will tell you a little more about the project.

Your child's school will be hosting a lesson about mental wellbeing during school time. Within this, all the children in the class will be asked to complete a questionnaire on the computer. Their response will be collected and analysed for my project. This will help us to understand how to best help children who are deaf, when they get mental health problems.

The lesson in which your child will be asked to take part in the project will take place between:

[Date TBC] – [Date TBC]

If you do not want your child to take part in this lesson, please complete and return the 'Opt-out' section of the leaflet. Alternatively, you could contact me on the details above or talk to a member of staff at your child's school. This will not affect your child's rights or their future access to mental health services. If we do not hear from you, we will assume you are happy for your child to take part in this project.

If you do not understand the contents of this letter or would like further information, please contact me on the details above. Alternatively, please talk to a member of staff at your child's school.

Yours sincerely,

N.J. Silvester

Nicola Silvester
Trainee Clinical Psychologist

APPENDIX E: Information Leaflet for Parents

My name is Nicola Silvester

I work as a Trainee Clinical Psychologist at the University of Birmingham

I am doing a project about children who are deaf. Dr Gary Law, Dr Sylvia Glenn and Dr Sarah Kent are Clinical Psychologists who will support me with this. This will be in conjunction with the National Deaf Child and Adolescent Mental Health Service (ND-CAMHS) and the National Deaf Children's Society (NDCS). We would like to know what children who are deaf know about mental health problems and where they would seek help for this, if they needed to. Your child's school has chosen to take part in this project. This leaflet will tell you more about the project and what your child might be asked to do. Then you can decide if you would like them to take part or not. This project will form part of my university qualification.

Contact Details

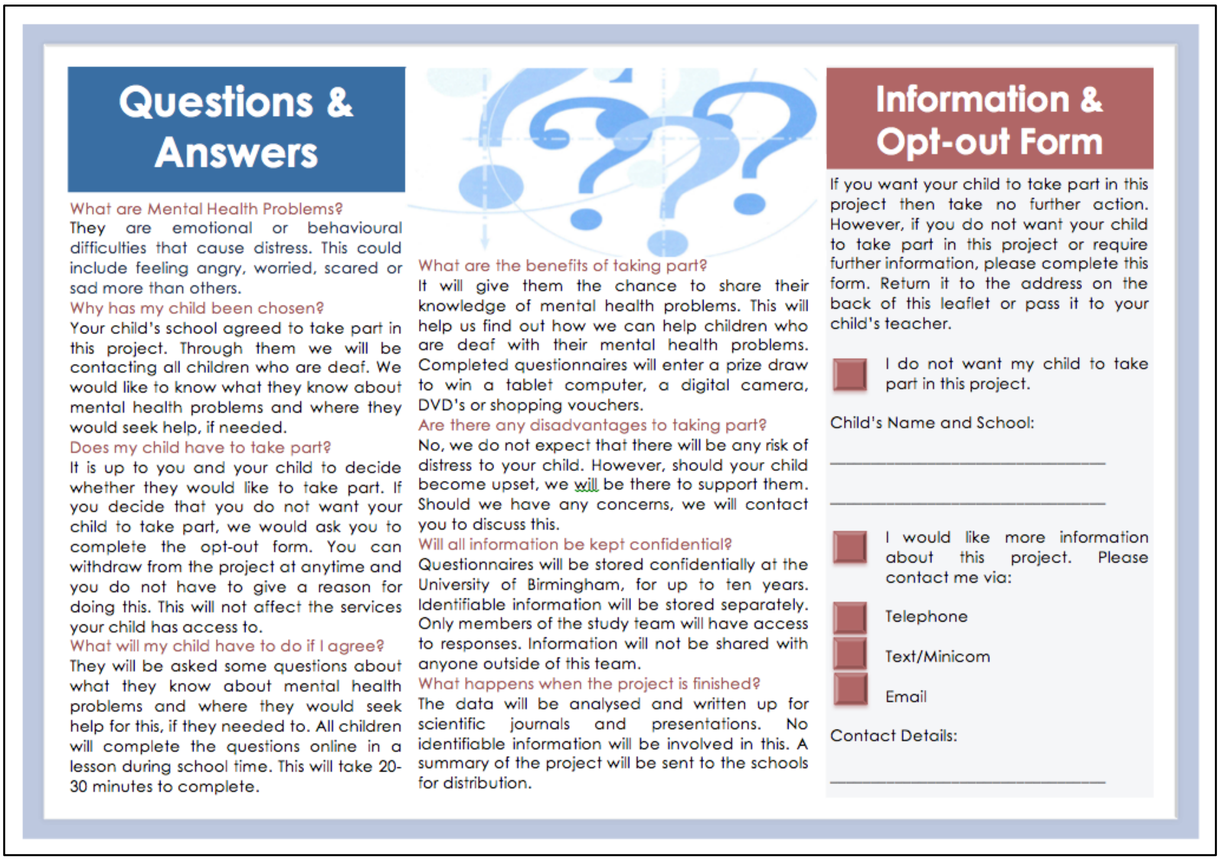
If there are any problems, or you have any worries about this project, please contact me and I will try to answer your questions. A variety of details have been provided at the end of this page where I can be contacted. Please remember that you can ask to stop or withdraw from the project at any time. If you do, any information that you have provided will be destroyed. This will not affect your child's rights or their future access to mental health services.

[redacted]

Mental Health & Wellbeing

The views of deaf children

UNIVERSITY OF BIRMINGHAM



Questions & Answers

What are Mental Health Problems?
They are emotional or behavioural difficulties that cause distress. This could include feeling angry, worried, scared or sad more than others.

Why has my child been chosen?
Your child's school agreed to take part in this project. Through them we will be contacting all children who are deaf. We would like to know what they know about mental health problems and where they would seek help, if needed.

Does my child have to take part?
It is up to you and your child to decide whether they would like to take part. If you decide that you do not want your child to take part, we would ask you to complete the opt-out form. You can withdraw from the project at anytime and you do not have to give a reason for doing this. This will not affect the services your child has access to.

What will my child have to do if I agree?
They will be asked some questions about what they know about mental health problems and where they would seek help for this, if they needed to. All children will complete the questions online in a lesson during school time. This will take 20-30 minutes to complete.

What are the benefits of taking part?
It will give them the chance to share their knowledge of mental health problems. This will help us find out how we can help children who are deaf with their mental health problems. Completed questionnaires will enter a prize draw to win a tablet computer, a digital camera, DVD's or shopping vouchers.

Are there any disadvantages to taking part?
No, we do not expect that there will be any risk of distress to your child. However, should your child become upset, we will be there to support them. Should we have any concerns, we will contact you to discuss this.

Will all information be kept confidential?
Questionnaires will be stored confidentially at the University of Birmingham, for up to ten years. Identifiable information will be stored separately. Only members of the study team will have access to responses. Information will not be shared with anyone outside of this team.

What happens when the project is finished?
The data will be analysed and written up for scientific journals and presentations. No identifiable information will be involved in this. A summary of the project will be sent to the schools for distribution.

Information & Opt-out Form

If you want your child to take part in this project then take no further action. However, if you do not want your child to take part in this project or require further information, please complete this form. Return it to the address on the back of this leaflet or pass it to your child's teacher.

☐ I do not want my child to take part in this project.

Child's Name and School:

____

____

☐ I would like more information about this project. Please contact me via:

☐ Telephone

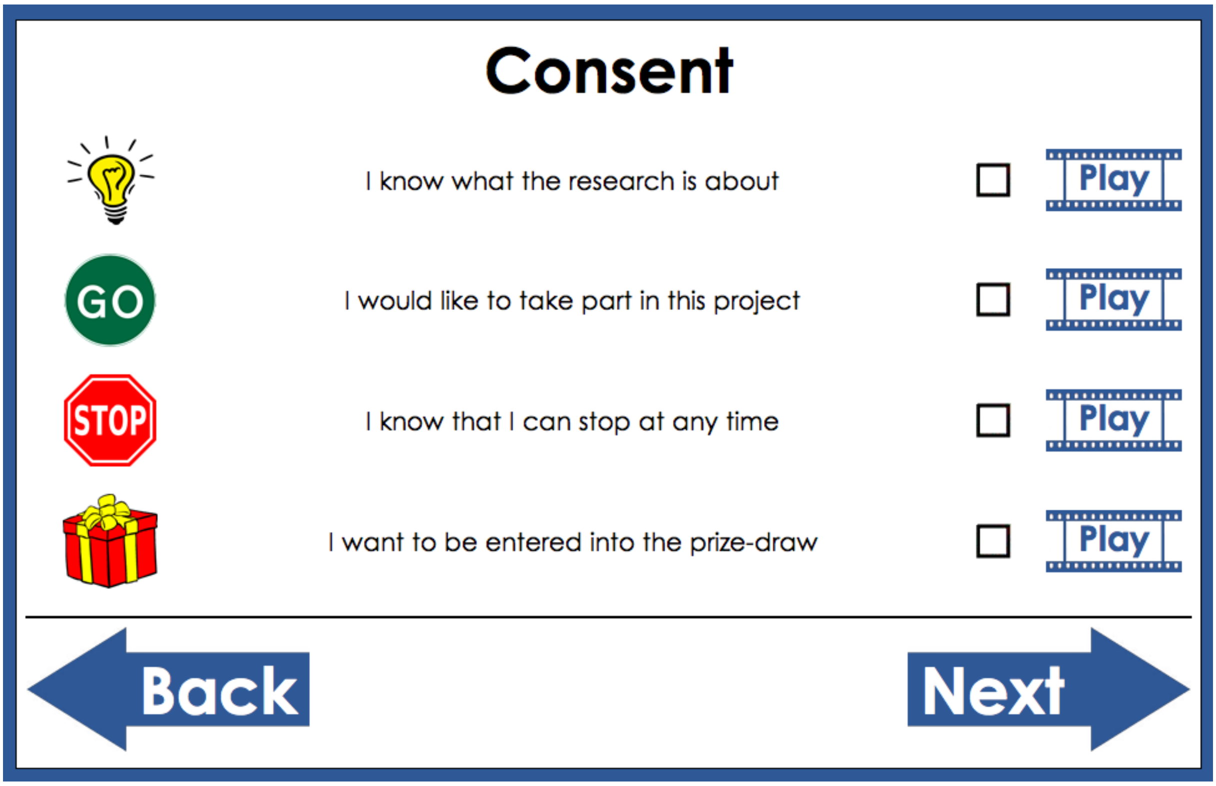
☐ Text/Minicom

☐ Email

Contact Details:

____

APPENDIX F: Electronic Consent Form for Participants



Consent

I know what the research is about ☐

I would like to take part in this project ☐

I know that I can stop at any time ☐

I want to be entered into the prize-draw ☐

Example of Embedded Video File Showing BSL Translations of Questions (Play Button)

APPENDIX G: Debrief Sheet for Participants

UNIVERSITY OF
BIRMINGHAM
[redacted]

Hello,

You have just taken part in a project to find out what you know about mental health problems. Your responses will be collected and analysed for my project. This will help us to understand how to best help children who are deaf, when they get mental health problems.

If you had any difficulties completing the questions or would like to talk to a professional about your own mental health, please speak to your parents or teachers. Alternatively, you could contact the services below:

NDCS
Tel: 0808 800 8880
Minicom: 0808 800 8880
Email: helpline@ndcs.org.uk
Web: www.ndcs.org.uk
Site for Young People: www.buzz.org.uk

Childline
Tel: 0800 11 11
Web: www.childline.org.uk

If you no longer want to take part in this project, or feel you need to withdraw your responses, then please contact me on the details above. This will not affect your rights or future access to mental health services.

If you have any problems, please contact me on the details above.

Thank you,

N.J. Silvester

Nicola Silvester
Trainee Clinical Psychologist

APPENDIX H: Debrief Sheet for Parents

UNIVERSITY OF
BIRMINGHAM

[redacted]

Hello,

Your child has just taken part in a project to find out what they know about mental health problems. Their responses will be collected and analysed for my project. This will help us to understand how to best help children who are deaf, when they get mental health problems.

If your child had any difficulties completing the questions or would like to talk to a professional about their mental health, please speak to a professional working with your child (i.e. teacher, doctor, health visitor, social worker, etc) and ask them to make a referral to the National Deaf Child and Adolescent Mental Health Service (ND-CAMHS). Alternatively, you could contact the service below:

National Deaf Children's Service (NDCS)
Tel: 0808 800 8880
Minicom: 0808 800 8880
Email: helpline@ndcs.org.uk
Web: www.ndcs.org.uk

If you feel the need to withdraw your child's responses from this project, then please contact me on the details above. This will not affect your child's rights or future access to mental health services.

If you have any problems, please contact me on the details above.

Thank you,

N.J. Silvester

Nicola Silvester
Trainee Clinical Psychologist

APPENDIX I: Full Summary of Questions

Socio-demographic Variables	
Gender	I am a: Boy / Girl (Tick one option)
Age	My date of birth is: __/__/____ (Automatically calculates age)
Ethnicity	My ethnicity is: 1. White (British/Irish/Other). 2. Mixed (White-Black Caribbean/White-Black African/White-Asian/Other). 3. Asian/Asian-British (Indian/Pakistani/Bangladeshi/Other). 4. Black/Black-British (Caribbean/African/Other). 5. Chinese or other ethnic group (Chinese/Other). 6. D/K or would prefer not to say.
Socioeconomic Status	My home postcode is: ____-____ (Used as an identifier and supplied by teachers)
Educational Status	My school is: (Tick one option) 1. A school for the deaf. 2. A mainstream school with a hearing impairment base. 3. A mainstream school. At my school the teachers communicate using: (Tick the most appropriate) 1. Mainly sign language 2. Mainly speech 3. A mixture of sign and speech
Aids Used	I use: (Tick all that apply) 1. Hearing Aid/s 2. Cochlear Implant/s 3. None
Preferred Communication Mode	I like to communicate using: (Tick one option) 1. Sign language 2. A mixture of sign and speech 3. Sign or speech, depending on where I am or who I am with 4. Speech
Families Hearing Status	The adults that live in my house, such as mum, dad, grandparent, are: 1. Deaf 2. Hearing 3. Some Deaf & Some Hearing
Families Preferred Mode of Communication	The adults that live in my house, such as mum, dad, grandparents, like to communicate using: 1. Sign 2. Speech 3. Both
Wellbeing Questionnaire	In the last week: (Rate each statement as; Not at all, Slightly, Moderately, Very or Extremely) 1. I have felt fit and well 2. I have felt full of energy 3. I have felt sad 4. I have felt lonely 5. I have had enough time for myself

	6. I have been able to do the things that I wanted in my spare time 7. My parents have treated me fairly (listened to me and shown me respect) 8. I have had fun with my friends 9. I have got on well at school 10. I have been able to pay attention (to my work activities)
MH Knowledge Questionnaire	Here are some statements about people with mental health problems. Do you agree or disagree with the statements? I think that: (Rate each statement as: Agree, Disagree or 'Don't Know') 1. Teenagers can have problems with their mental health. 2. Teenagers with mental health problems are likely to become violent. 3. Most people with mental health problems can do normal things like go to school or work. 4. If you have poor mental health it can affect your physical health. 5. Depression is the same thing as being sad. 6. Most teenagers with mental health problems are in separate classes at school. 7. Mental health problems can be caused by stress. 8. In the UK 1 in 4 people will develop mental health problems over the course of their lives. 9. There is a stigma attached to people with mental health problems (discrimination). 10. Deaf teenagers are more likely to have a mental health problem than hearing teenagers.
Attitude Questionnaire re: Stigma	If a student in my class had a mental health problem: (Scored on sliding Likert scale with question specific label classifiers at either ends of the scale) Not at all]------------------------☐------------------------[Very much 1. I would feel sorry for the student with mental health problems? 2. How dangerous do you think they would be to others? 3. How dangerous do you think they would be to themselves? 4. Would you be scared of them? 5. I would think they were to blame for their difficulties. 6. How angry would you feel towards them? 7. How likely is it that you would help them? 8. I would try to stay away from them. 9. I don't think they should be at the same school as me.
History of Seeking Help	Everybody gets angry, worried, scared or anxious sometimes and that's ok, but having a mental health problem means getting angry, worried, scared or anxious more than others and more often. I have had a mental health problem? Yes / No. I have told someone about my mental health problem? Yes / No. I told: (Tick all that apply) 1. GP (Doctor). 2. Psychologist / Psychiatrist / CAMHS person. 3. Friend. 4. Family member. 5. Teacher / Teaching Assistant. 6. School counsellor or mentor.

	7. Counsellor e.g., NSPCC, NDCS, etc. 8. School nurse. 9. Religious person e.g., Vicar, Rabi, Imam, etc. 10. Other: (Please specify)
Helpfulness of Previous Help	When I told someone about my mental health problem, I found it: (Rate on scale) Very helpful, A little bit helpful, Not at all helpful, Don’t know.
Familiarity Questionnaire	How well do you know people with mental health problems? (Tick the most appropriate) 1. A member of my family, or a close friend has a mental health problem. 2. Someone that I see quite regularly has a mental health problem (e.g., someone at school). 3. I have seen someone on TV or read about someone in a magazine that has a mental health problem. 4. I don’t know anyone with a mental health problem. How do you feel about people with mental health problems? (Score on a sliding Likert scale) Extremely Positive]------------------□-----------------[Extremely Negative

Perceived Threat (Severity x Susceptibility)	
Perceived Susceptibility	Whilst I am a teenager, I think that: (Score on a sliding Likert scale) Definitely Yes]-----------------------□-----------------------[Definitely No 1. I will get a mental health problem. 2. I am likely to get depressed. 3. I am likely to get stressed. 4. I will have problems with anxiety. 5. I will have problems with anger. 6. I will get psychosis or schizophrenia (where you feel detached from the world and can become paranoid if you have thoughts come into you head that are not your own and perhaps see things that are not real). 7. I will have problems with eating e.g., regularly eating too much, not eating so you starve or making myself sick after meals. 8. I will have other mental health problems: (Please specify)
Perceived Severity (ABC inverse re: impact)	If I had a mental health problem, it would stop me: (Score on a sliding Likert scale) Strongly Agree]---------------------□---------------------[Strongly Disagree 1. Managing things at home. 2. Going to school. 3. Enjoying things that interest me. 4. Feeling good about myself. 5. Handling emergencies and crises. 6. Getting along with my friends. 7. Getting along with my family. 8. Controlling my life. 9. Doing things on my own. 10. Making important decisions that affect my life and those of my family.

Outcome Expectancy (Benefit + Inverse of Barriers)	
Perceived Benefit (ABC)	If I got help for a mental health problem, I would be able to: (Score on a sliding Likert scale) Strongly Agree]---------------------☐---------------------[Strongly Disagree 1. Manage things at home. 2. Go to school. 3. Enjoy things that interest me. 4. Feel good about myself. 5. Handle emergencies and crises. 6. Get along with my friends. 7. Get along with my family. 8. Control my life. 9. Do things on my own. 10. Make important decisions that affect my life and those of my family.
Perceived Barriers (Culture & Access)	If I had a mental health problem, how difficult would I find getting help if: (Score on Likert scale) Not at all difficult]----------------------☐----------------------[Very difficult 1. The person who I spoke to was hearing and could not sign. 2. The person who I spoke to was deaf and could not sign. 3. The person who I spoke to was hearing and could sign. 4. The person who I spoke to was deaf and could sign. 5. The person who I spoke to used an interpreter 6. There was no interpreter available. 7. My parents had to find out. 8. My parents had to come with me. 9. We had to meet to discuss my mental health problem at school. 10. We had to meet to discuss my mental health problem at a clinic. 11. We had to meet to discuss my mental health problem at home.

Self-Efficacy (Relating to Barriers)	
Self-Efficacy	If I had a mental health problem, how confident would I be that I could still get help despite: Not at all confident]--------------------☐---------------------[Very confident 1. The person who I spoke to being hearing and not able to sign. 2. The person who I spoke to being deaf and not able to sign. 3. The person who I spoke to being hearing and able to sign. 4. The person who I spoke to being deaf and able to sign. 5. The person who I spoke to using an interpreter 6. There being no interpreter available. 7. My parents having to find out. 8. My parents having to come with me. 9. Having to meet to discuss my mental health problem at school. 10. Having to meet to discuss my mental health problem at a clinic. 11. Having to meet to discuss my mental health problem at home.

Cues to Action / Motivators to Seeking Help	
Motivators	If I thought I had a mental health problem, the following would help me to talk to someone about it: Not at all helpful]------------------------☐------------------------[Very helpful 1. Reading a leaflet about mental health problems. 2. Finding out about mental health problems in lessons at school. 3. Finding out about mental health problems from the Internet. 4. Seeing someone in a magazine that had a mental health problem. 5. Seeing someone on television or on a DVD that had a mental health problem. 6. Knowing someone else that had a mental health problem (e.g., someone in my school). 7. Knowing a close friend or a member of my family has had a mental health problem.

Mental Healthcare Utilisation Behaviours	
Overall Likelihood	If I thought I had a mental health problem, I would talk to someone about it: Definitely yes]-------------------------☐-------------------------[Definitely not
Specific Likelihood	If I thought I had a mental health problem, I would seek help from: Definitely yes]-------------------------☐-------------------------[Definitely not 1. GP (Doctor). 2. Psychologist / Psychiatrist / CAMHS person. 3. Friend. 4. Family member. 5. Teacher / Teaching Assistant. 6. School counsellor or mentor. 7. Counsellor e.g., NSPCC, NDCS, etc. 8. School nurse. 9. Internet website. 10. Religious person e.g., Vicar, Rabi, Imam, etc. If I had a mental health problem, I would prefer to talk to someone who: 1. Is Deaf / Hearing / Either 2. Signs / Speaks / Either 3. Works at a service that everyone can access / Works at a service for people who are deaf 4. Uses an interpreter / Does not use an interpreter

APPENDIX J: Summary Tables Ranking Responses on Specific Scales

Table 9: *Perceived Barriers to Seeking Help for a Mental Health Problem*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
Appointment at School	61 (34-81)	60 (29-78)	64 (45-90)
Interpreter Absent	50 (4-100)	50 (1-89)	63 (7-100)
Deaf Professional / Oral	50 (7-79)	50 (7-76)	54 (13-93)
Appointment at Home	50 (18-76)	50 (19-76)	52 (10-78)
Hearing Professional / Oral	50 (0-87)	45 (0-87)	58 (8-88)
Appointment at Clinic	40 (12-67)	40 (10-67)	40 (16-68)
Interpreter Present	36 (0-61)	40 (0-62)	29 (0-57)
Parents Present	36 (0-69)	39 (0-70)	33 (0-67)
Parents Informed	33 (1-66)	30 (2-66)	41 (0-67)
Deaf Professional / Sign Language	29 (0-67)	27 (0-67)	37 (1-73)
Hearing Professional / Sign Language	22 (0-50)	19 (0-50)	24 (3-51)

Showing Mdn (IQR) for questions asked on a percentage Likert scale

Table 10: *Cues to Action (Motivators) when Seeking Help for a Mental Health Problem*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
Having a Family Member with MHP	74 (50-93)	77 (58-95)	61 (33-90)
Knowing an Acquaintance with MHP	68 (50-84)	70 (54-84)	63 (33-86)
Seeing TV/Film Characters with MHP	66 (37-87)	66 (39-82)	66 (32-92)
Information Leaflet about MHP	66 (40-87)	65 (37-83)	68 (50-96)
Reading about Personal Life Stories	63 (28-83)	65 (32-79)	61 (19-89)
Information on the Internet about MHP	63 (29-83)	65 (33-82)	54 (20-93)
School Lesson about MHP	62 (40-81)	61 (40-80)	62 (37-85)

Showing Mdn (IQR) for questions asked on a percentage Likert scale

Table 11: *Perceived Susceptibility to Mental Health Problems*

	Overall	**Group 1 (OD)**	**Group 2 (TC)**
Stress	60 (27-82)	62 (27-83)	57 (26-79)
Anger	41 (1-69)	40 (0-63)	50 (7-86)
Depression	34 (0-67)	33 (0-65)	38 (0-74)
Anxiety	30 (0-66)	21 (0-60)	40 (7-73)
Eating Disorders	16 (0-55)	18 (0-50)	9 (0-88)
Psychosis & Schizophrenia	15 (0-50)	2 (0-48)	35 (1-76)
MHP's in General	11 (0-50)	9 (0-34)	28 (0-73)
Other More Specific MHP's[a]	0 (0-39)	0 (0-27)	15 (0-62)

Showing Mdn (IQR) for questions asked on a percentage Likert scale

[a] ***Responses given were: ADHD, Confidence, Dyslexia, Mocking and "Mum's MHP"***

PUBLIC DOMAIN PAPER

PROMOTING MENTAL HEALTH AND WELLBEING IN THE DEAF POPULATION

Word Count: 1354

PUBLIC DOMAIN BRIEFING PAPER

Promoting Mental Health and Wellbeing in the Deaf Population

This document provides an overview of the research conducted by Nicola Silvester in partial fulfilment of the requirements for the degree of Doctorate in Clinical Psychology at the University of Birmingham. This document summarises the literature review and a research paper, both written in preparation for submission to peer-reviewed journals.

LITERATURE REVIEW: The Deaf Population: Experiences of Mental Health Services and Factors Associated with Help-Seeking Behaviour

Aim: Individuals who are deaf have a higher prevalence of mental health problems but are under-represented within mental health services. Communication barriers and social factors perpetuate their segregation from the hearing world and have been reported to result in antiquated views on mental health provision. Despite the emergence of specialist provision, utilisation is still poor. There is also a paucity of literature exploring the views of deaf people towards their experiences of mental health services. Therefore, this review aimed to explore the literature on deaf people's views and experiences of mental health services in order to highlight factors associated with help-seeking behaviour.

Method: A systematic literature search was carried out to identify relevant studies. A total of 19 papers were reviewed. Papers were summarised before being critically appraised using a critical framework, suitable for both qualitative and quantitative studies.

Results: Deaf people were not aware of services, as they cannot access information as readily as hearing people (Feldman & Kearns, 2007). Deaf people reported communication barriers preventing them from accessing services (i.e., lack of Text-Relay Systems or Induction Loops). Therefore, making their mental health problems worse, resulting in more frequent and longer hospital stays (Landsberger & Diaz, 2010). Professionals had little understanding or training in the needs of the deaf person experiencing a mental health problem (Vernon, 2006). Professionals would often try to communicate in writing or expect the deaf person to lip read (Ferguson, Lowndes, McDonald, Edmond & Tolson, 2009). Sometimes professionals would talk to the deaf person's family about their mental health problem, so deaf people felt excluded from the discussion and any decisions that were made for them (Ferguson et al., 2009). Therefore, misunderstanding the way deaf people communicate or what they may be experiencing often led professionals to misdiagnose them (Landsberger & Diaz, 2010). Due to their communication needs, deaf people did not have the same access to treatments as hearing people, with services often being unable to meet their needs (Munro et al., 2008). When professionals did use interpreters, deaf people found it uncomfortable to share personal feelings with another person, who they might see within the deaf community (Ferguson et al., 2009). They were also worried about the cost of interpreters, not realising that services should be paying for this (Ferguson et al., 2009).

Discussion: The central theme of communication breakdown ran through all aspects of deaf people's experiences of mental health services. When looking at promoting access they did not seem to have a preference towards specialist services, with them stating attributes that they wanted to be present within services to aid access rather than being definitive on the type of service. Deaf people wanted better integration between primary mental health services, outpatient services and inpatient hospital services, so that movement between them was smooth (Greco et al., 2009; Landsberger & Diaz, 2010; Munro et al., 2008). Deaf people wanted to be consulted on their communication needs and have professionals try to accommodate this (Ferguson et al., 2009). Similarly, they wanted their communication needs to be taken into account when being given information about services or being assessed and treated for mental health problems (Feldman Kluwin & McCrone, 2005; Landsberger & Diaz, 2010). Deaf people also wanted interpreters to be qualified and skilled in understanding both mental health and deafness (Landsberger & Diaz, 2010; Munro et al., 2008).

RESEARCH PAPER: Mental Health & Wellbeing: The Views of Deaf Children towards Seeking Help for Mental Health Problems

Aim: The national strategy ‘No Health without Mental Health’ (DOH, 2011) aims to improve mental health and wellbeing across the whole country. This is at the forefront of the Government agenda with policies recognising that this should begin in childhood. For deaf children this is particularly pertinent, as they have a higher prevalence of mental health problems than their hearing counterparts (Hindley, 2005). This may be due to the difficulties that caused their deafness (Rubella, Meningitis, etc.) or the challenges they face by being deaf in a hearing world (Hindley, 2000; 2005). However, deaf people do not access mental health services as often as hearing people, despite the emergence of specialist services (Appleford, 2003). To date, very little research had been conducted in order to investigate the reasons behind this. Therefore, this study sought to explore the factors associated with help-seeking intentions for mental health problems in deaf children.

Method: 186 deaf children (11-19 years of age) attending specialist residential schools for the deaf were surveyed via an online questionnaire for their views towards accessing mental health services. Participants were divided into two groups, those who accessed an Oral-Deaf environment, where they were encouraged to use speech over sign language, and those who access a Total Communication environment, where multiple forms of communication were supported. To find out what factors influenced participants intention to seek help if they developed a mental health problem, many factors were surveyed. These mapped onto a model, called the Health Belief Model that had been used in previous research (Waite & Killian, 2008). The Health Belief Model suggests that demographic variables, perceived threat from mental health problems, the expected outcome of therapy, cues to action and confidence in overcoming barriers influence intention to seek help (Figure 1).

The Health Belief Model

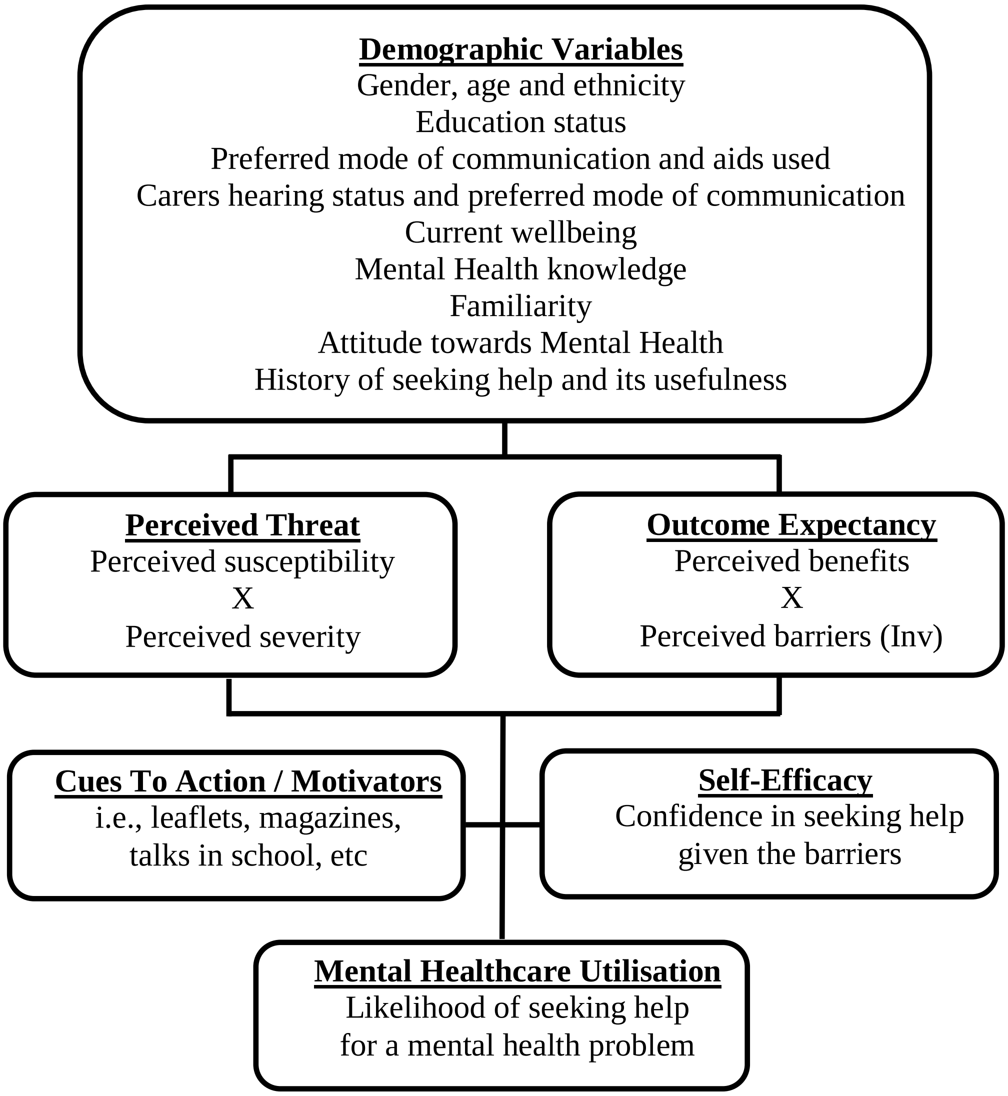


Figure 1: The Health Belief Model *(Henshaw & Freedman-Doan, 2009)*

Results: Thirteen percent of the variance in children's help-seeking intentions was explained by variables in the Health Belief Model, with outcome expectancy and self-efficacy being particularly important to help-seeking intentions. Participants reported experiencing far fewer mental health problems (19%) than was suggested by the literature and accessed mental health support more often, albeit through family, friends, teachers and GP's. Participants did not have an overall preference towards either deaf or hearing professionals, with many citing hearing status as unimportant (58%). Similarly, participants were equally happy with professionals who either spoke or signed, with the majority of participants being bilingual (67%). There was also no overall consensus towards generic or specialist services, or for the use of interpreters. However, the Children from the Total Communication group were more likely to disclose having had a mental health problem, shy away from speaking professionals and be more accepting of interpreters.

Discussion: As the largest current study into the views of deaf children, it was disappointing that only thirteen percent of the variance in help-seeking intentions was explained. None of the demographic variables were related to the overall intention to seek help, which was unusual, as these have been shown to be important for hearing people. This suggested that factors which affect a deaf child's intention to seek help for a mental health problem might be different to those of hearing children. However, these participants were keener than most to access services, which skewed the dependant variable. Resilience through being in specialist education provision, which has close links to specialist mental health services, could explain the reduced prevalence of mental health problems and increased prevalence and willingness to access support. Similarly, the bilingual nature of the participants could explain the lack of overall preference towards professionals, services or interpreters. In thinking about how to promote mental health and wellbeing in the deaf population, this study suggested some of the responsibility lies with getting deaf people to realise the benefits of therapy and giving them the confidence to overcome any barriers. Increasing confidence in overcoming barriers to access is a little harder to achieve, as self-efficacy is built up through experience. Perhaps by trying to reduce the barriers that face deaf people in accessing services, would make the need to overcome barriers less and thus create more opportunities for developing confidence. Then having more deaf people accessing services would create a larger population for surveying views.

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