

A QUALITATIVE STUDY OF POTENTIAL CHALLENGES TO ACCESSING  
BARIATRIC SURGERY FOR ETHNIC MINORITY PATIENTS IN THE UK

by

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A thesis submitted to the University of Birmingham for the degree of  
MASTER OF PHILOSOPHY

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June 2020

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## **ABSTRACT**

**Background:** With no signs of the amelioration of global obesity rates and this being a significant risk for numerous diseases, including type 2 diabetes mellitus and cardiovascular disease, individuals of South Asian and Black heritage have been shown to be disproportionately affected by these illnesses compared to white Europeans. Bariatric surgery has proven to be the only weight loss intervention that leads to significant and long-term weight loss, and in the UK, is encompassed within the weight management Tier pathway. However, the few existing published studies identify the underrepresentation of ethnic minorities within the Tier pathway and ultimately undergoing bariatric surgery. The aim of this MPhil research project was to explore the potential challenges in accessing bariatric surgery that may lead to underrepresentation of ethnic minorities.

**Methods:** Six focus groups were conducted with ethnic minority adults, and individual interviews were conducted with three health care professionals along the weight management Tier pathway.

**Results:** Main themes emerging from focus groups participants included personal factors, healthcare factors, and socio-cultural factors. Main themes emerging from interviews conducted with health care professionals included system structural factors, social factors, and governance factors.

**Conclusions:** Significant barriers were identified within the weight management Tier pathway, preventing ethnic minorities from accessing bariatric surgery. Unless these are addressed and suitably amended, it is likely that ethnic minorities will continue to be underrepresented within the Tier pathway and in the uptake of bariatric surgery.

## **ACKNOWLEDGEMENTS**

I would like to acknowledge the following organisations for their very generous scholarships:

1. RCN Foundation Professional Bursary Scheme for their funding of £4,207 for the academic year 2015-2016
2. Florence Nightingale Foundation Research Scholarship for their funding of £2,000 for the academic year 2016-2017

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## LIST OF ABBREVIATIONS

BAME	Black, Asian and Minority Ethnic groups
BHF	British Heart Foundation
BMI	Body Mass Index
BOLD	Bariatric Outcomes Longitudinal Database
CCG	Clinical Commissioning Group
CHD	Coronary Heart Disease
CVD	Cardiovascular Disease
DALYs	Disability-Adjusted Life Years
DEXA	Dual Energy X-ray Absorptiometry
DoH	Department of Health
FFM	Free Fat Mass
GERD	Gastroesophageal Reflux Disease
GDP	Gross Domestic Product
GLP 1	Glucagon-like Peptide 1
HIV/AIDS	Human Immuno-deficiency Virus/Acquired Immune Deficiency Syndrome
HCPs	Healthcare Professionals
HSE	Health Survey for England
IDF	International Diabetes Federation
IGB	Intragastric Balloon
IGT	Impaired Glucose Tolerance
LAGB	Laparoscopic Adjustable Gastric Band



NBSR	National Bariatric Surgery Registry
NCD	Non-Communicable Diseases
NHANES	National Health and Nutrition Examination Survey
NHS	National Health Service
NICE	National Institute for Clinical Excellence
NIH	National Institutes of Health
NOO	National Obesity Observatory
NZ	New Zealand
NZE	New Zealand Europeans
PBF	Percentage Body Fat
PHE	Public Health England
PHIAC	Public Health Interventions Advisory Committee
PYY	Peptide YY
RYGB	Roux-en-Y Gastric Bypass
TBF	Total Body Fat
T2DM	Type 2 Diabetes Mellitus
UK	United Kingdom
USA	United States of America
VSG	Vertical Sleeve Gastrectomy
WHO	World Health Organisation
WMPs	Weight Management Programmes

## **CHAPTER 1 – LITERATURE REVIEW**

### **1.1 Introduction**

This chapter provides an overview of the scope of the problem of obesity and extreme (or morbid) obesity, and current approaches for treating obesity. It presents a literature review to inform the justification for the use of bariatric surgery as an effective treatment for extreme obesity and illustrates the disparities with regards to ethnicity in those who are receiving bariatric surgery.

### **1.2 Background**

Obesity was declared a pandemic by the World Health Organization (WHO) in 2000 (WHO, 2000) and continues on an upward trajectory. Globally, obesity rates have tripled since 1975, with increasing numbers being recorded in both high- and low-income countries (WHO, 2020). Despite targeted action points and strategies aimed at addressing this pandemic, no country has successfully shown a reversal in obesity trends (Roberto et al., 2015). The United Kingdom (UK) is currently documented as being the most obese country in Europe, with 63.4% of adults classified as overweight and 28.1% classified as obese (Diabetes.co.uk; 2019).

Obesity increases the risk for various non-communicable diseases (NCD) including cardiovascular and metabolic diseases, and certain cancers. It is also a major contributor of disability-adjusted life years (DALYs), ultimately increasing the risk of mortality (Frank et al., 2019; WHO, 2020). In fact, cardiovascular disease (CVD), and more specifically, ischaemic heart disease, is the leading cause of all mortality globally (WHO, 2018). It is the main cause of premature death in the UK, and

accounts for 27% of total mortalities (BHF, 2020). Type 2 diabetes mellitus (T2DM) is ranked as being the 7<sup>th</sup> most common cause of global deaths (WHO, 2018), whilst global estimates of adults living with T2DM are forecast to increase by 363% between the years 2000 and 2045 (IDF, 2019). In the UK, current estimates show 7% of the population live with T2DM (Whicher et al., 2020).

The economic burden of obesity on global healthcare systems, though varying between countries, is estimated to cost between 0.7% and 2.8% of a nation's total healthcare costs (Wolfenden et al., 2019). The fiscal impact of obesity on the UK's National Health Service was £6.1 billion in 2014/2015, a figure forecast to rise to £49.9 in 2050 (PHE, 2017).

Black, Asian and Minority Ethnic groups (BAME) constituted 13.8% of the UK population based on figures from the 2011 census. Of these, 10.1% comprised of South Asian and Black ethnicities, an increase from 6.6% obtained in the 2001 census (GOV.UK, 2018). There is a plethora of data showing that these ethnicities are disproportionately affected by T2DM, being 2 to 6 times more likely to develop the disease compared to Europeans (HSE, 2004; Tillin et al., 2015; Meeks et al., 2016). Similarly, South Asians have an increased mortality rate of 40% from Coronary Heart Disease (CHD), a constituent of CVD, compared to the general British population (Jalal et al., 2019). Of note, lower BMI thresholds in these ethnicities have been associated with T2DM (25.2 kg/m<sup>2</sup> & 27.2 kg/m<sup>2</sup> in South Asian and African Caribbean, respectively), in contrast with 30 kg/m<sup>2</sup> in white Europeans (Tillin et al., 2015).

In an effort to curb obesity, the UK Department of Health (DoH) through the National Institute for Clinical Excellence (NICE) implemented the 4 tiers of weight management (NICE, 2014), which are discussed in detail from page 15 of this thesis. Tier 4 involves bariatric surgery, which currently remains the single most effective intervention resulting in significant and sustained weight loss, as well as marked improvements in obesity-related diseases (Small et al., 2020). Stipulated criteria for patient eligibility were initially set at BMI  $\geq 40 \text{ kg/m}^2$  in adults with or without comorbidities, or BMI  $\geq 35 \text{ kg/m}^2$  among those with two or more comorbidities. Modifications to these criteria to lower BMI thresholds have been encouraged for South Asians to facilitate bariatric surgery at BMI  $\geq 30 \text{ kg/m}^2$  with T2DM or metabolic syndrome, or BMI  $\geq 35 \text{ kg/m}^2$  with or without comorbidities (NICE, 2013).

Despite these data, ethnic minorities appear to be underrepresented in the uptake of bariatric surgery in comparison to their white European counterparts (Welbourn, 2014). With their increased propensity to T2DM and CVD, it is imperative that this discrepancy is addressed. The overall economic savings from both obesity-related diseases and DALYs, as well as the increase in quality of life for this demographic is likely to be significant.

### **1.3 Aim of the thesis**

To this end, the aim of this MPhil research project is to explore the potential challenges in accessing bariatric surgery that may be leading to underrepresentation of ethnic minorities, specifically amongst these ethnic minority groups: Indians, Pakistanis, Bangladeshi, African Caribbeans and Africans. The study will use a qualitative approach incorporating focus groups with members of these communities,

and interviews with healthcare professionals working across the weight management Tier system to explore the following themes:

1. To explore the perceptions and attitudes of ethnic minority individuals towards bariatric surgery;
2. To explore the efficacy of the weight management Tier pathway in its intended purpose for these communities;
3. To explore healthcare professionals' experiences with this demographic in relation to weight management Tier system and bariatric surgery; and
4. To examine whether these population sub-groups are being excluded from accessing barrier surgery through overt, or unseen/unconscious barriers.

## **1.2 Obesity as a Global Health Crisis**

Obesity, defined as excessive accumulation of fat that potentiates the risk to health, is now recognised as a global health crisis (WHO, 2018). Its impact has been felt by virtually all societies worldwide, and it shows no signs of slowing down (Stevens et al., 2012; Williams et al., 2015; NCD, 2016). Statistics from the WHO show obesity prevalence to have nearly tripled since the 1970s (WHO, 2018). This section of the literature review defines obesity and extreme obesity and presents evidence on the prevalence of obesity and extreme obesity and associated co-morbidities. Table 1 below outlines the WHO classifications for obesity based on body mass index (BMI), with table 2 providing additional related terminologies that will be used throughout this thesis.

Classification	BMI (Kg/m <sup>2</sup> )
Underweight	<18.5 Kg/m <sup>2</sup>
Normal weight	18.5 – 25.0 Kg/m <sup>2</sup>
Overweight	25.0 – 29.9 Kg/m <sup>2</sup>
Obese:	
Obese Class I	30.0 – 34.9 Kg/m <sup>2</sup>
Obese Class II	35.0 – 39.9 Kg/m <sup>2</sup>
Obese Class III	≥40 Kg/m <sup>2</sup>

**Table 1:** Classification of BMI in the general population (WHO, 2016)

Morbid Obesity	Refers to a BMI ≥40 Kg/m <sup>2</sup>
Extreme Obesity	Preferred term to morbid obesity as a less offensive definition for this patient group
Complex Obesity	Refers to a BMI ≥35kg/m <sup>2</sup> + comorbidities)
Super morbidly Obese	Describes a BMI of ≥50 Kg/m <sup>2</sup>

**Table 2:** Definition of terminology referring to obesity used in this thesis (WHO, 2016)

### 1.2.1 Body Mass Index and its Role in the Classification of Obesity

Body Mass Index (BMI) is an index measure that is calculated by dividing an individual's weight in kilogrammes by their height in square metres (Kg/m<sup>2</sup>) (WHO, 2016). The World Health Organisation endorsed BMI in 1995 as an easily generalised

and reproducible tool to categorise underweight, normal weight, overweight and obesity (refer to Table 1).

BMI is identified as one of the gold standards for obesity measurements, and is the most commonly used measure for obesity (Adab et al., 2018; WHO, 2016). It is also primarily used by clinicians to determine risk for the metabolic syndrome; this is defined as the collective conditions that predispose towards type 2 diabetes mellitus (T2DM) and cardiovascular disease (CVD), such as obesity, hypertension, dyslipidaemia and insulin resistance (Beltran-Sanchez et al., 2013). Okorodudu et al., (2010) conducted a systematic review and meta-analysis to measure the specificity and sensitivity of BMI to determine obesity. Their results concluded that though BMI was low in sensitivity for obesity (able to correctly classify obesity), it showed high specificity as a diagnostic tool for the measurement of obesity (correctly able to classify non-obesity). In addition, the ease in the collection of the required data to calculate BMI makes it inexpensive and reproducible, hence allowing for consistency and standardization. It also allows for easy monitoring by individuals and healthcare providers and can alert both parties when certain cut-off points are reached (Blew et al., 2002). Moreover, it not only facilitates comparisons across different population subsets, but allows the tracking of trends especially in populations susceptible to certain illnesses (Burkhauser & Cawley, 2008).

BMI as a measure of obesity has been demonstrated as varying by race, hence being less accurate in some groups compared to others. Burkhauser & Cawley's (2008) review of NHANES data collected between 1988 and 1994 showed that the average higher levels free fat mass (FFM) in African Americans than white Americans resulted

in the former being inaccurately classified as obese. This is due to BMI's low sensitivity in its inability to differentiate between FFM and total body fat (TBF). Strong evidence suggests that people of Asian descent, especially from the Indian subcontinent, have a significantly higher propensity to carry a larger amount of TBF for a given BMI compared to white Europeans (Prentice & Jebb, 2001). In addition, they tend to exhibit a higher number of features of the metabolic syndrome, such as lower high-density lipoproteins and higher triglycerides, at a given waist circumference, compared to their white counterparts (NICE, 2013).

In 2004, the WHO reviewed the data from ethnic minority and white populations in relation to BMI and risks for metabolic syndrome and other chronic diseases, and concluded that compared to white populations, South Asians were at greater risk for metabolic diseases at a similar BMI. In 2011, the Public Health Interventions Advisory Committee (PHIAC) based their BMI and disease risk recommendations on the WHO report, advocating the use of lower BMI thresholds amongst South Asians (23 kg/m<sup>2</sup> to signify increased risk, and 27 kg/m<sup>2</sup> to signify high risk), as triggers of increased risk of T2DM, CVD and the metabolic syndrome. The use of lower waist circumference thresholds amongst South Asians compared to other populations has also been advocated as an indicator of increased risk for poor health, as shown in table 3 below (NICE, 2013).

	White Europeans	South Asians	Description
BMI	< 18.5 kg/m <sup>2</sup>	< 18.5 kg/m <sup>2</sup>	Underweight
	18.5 – 24.9 kg/m <sup>2</sup>	18.5 – 23.0 kg/m <sup>2</sup>	Increasing but acceptable risk



	25 – 29.9 kg/m <sup>2</sup>		23.1 – 27.5 kg/m <sup>2</sup>		Increased risk
	≥30 kg/m <sup>2</sup>		≥27.5 kg/m <sup>2</sup>		High risk
Waist Circumference	Men	≥94 cm (37 in)	Men	≥90 cm (35 in)	High risk
	Women	≥80 cm (31.5 in)	Women	≥80 cm (31.5 in)	High risk

**Table 3:** Comparison of BMI and waist circumference between South Asians and white European populations (NICE, 2013)

These thresholds have been assimilated by the NHS Health Checks programme following NICE guidelines, but it appears that this is not being universally applied by healthcare practitioners within the NHS as is discussed later in this chapter. Xiao & O'Neill (2017), using descriptive statistics and logistical regression, analysed data focusing on relationships between BMI, ethnicity and HbA<sub>1c</sub> levels (T2DM diagnostic test measuring of amounts of glucose attached to haemoglobin) collected from the 2013 Health Survey for England. They found that in spite of the NICE recommendations, South Asians were not only more likely to have undiagnosed T2DM than their white counterparts, but they were also more likely to display poorer glycaemic control.

### 1.2.2 Global and UK obesity figures

Overweight and obesity were previously considered a 'western' syndrome seen predominantly in high-income nations. However, this has transitioned within the past three decades into a global pandemic, with rates in low and middle-income countries experiencing significant increases (WHO, 2020). According to recent data, the majority of the world's 671 million obese individuals live in 10 countries; of these, 8

are low and middle-income (Ford et al., 2017). This upsurge has been caused by considerable changes in diet, with factors like increased uptake of sugar, energy dense food and animal-based protein. Changes in the production of edible oil has allowed its easy access even amongst those with very low incomes. Moreover, urbanization has resulted in significant shift away from manual based occupations and into service sector employment, and a switch in leisure activities towards being increasingly sedentary (Popkin et al., 2012). Global overweight has increased over the last three decades from 28.8% to 36.9 in men and 29.8% to 38% in women (Ng et al., 2014). Increase in age-standardized obesity is 3.2% to 10.8% in men and 6.4% to 14.9% in women (NCD, 2016).

Considering figures from the United Kingdom (UK), the rates of overweight and obesity in adults in England have increased from 53% in 1993 to 63% in 2018. Prevalence of obesity has similarly increased from 15% to 28% amongst adults within the same time period (HSE, 2018). The National Bariatric Surgery Registry (NBSR), which contains pooled data for bariatric surgery undertaken in the UK and provides a comprehensive and prospective analysis of bariatric surgery outcomes, ranked Britain as the third most obese nation in Europe, after Iceland and Malta in 2014 (Welbourn et al., 2014), Diabetes.co.uk (2019) state on their website that the UK is in fact the most obese country in Europe, with 63.4% adults being overweight and 28.1% obese. However, as earlier discussed, with BMI being the standard measure for obesity yet being low in sensitivity of the same, it remains arguable as to the accuracy of these figures, and the potential for over-estimation. However, of concern, data from the HSE show a marked increase in morbid obesity, from less than 0.5% to 2% in men, and 1% to 4% in women between 1993 and 2018 (HSE, 2018). Morbid obesity results

in increased abdominal obesity, which is a precursor for the metabolic syndrome; increased levels of obesity exacerbate the syndrome, significantly increasing co-morbidities and mortality (Welbourn et al., 2014).

### **1.3 Obesity-related Co-morbidities and Mortality**

WHO define disability-adjusted life years (DALYs) as the number productive years lost to disability and the sum total of potential life lost as a result of premature death (WHO, 2020). Stanaway et al., (2018) used disability-adjusted life years (DALYs) to describe global deaths attributable to specific risk factors. In 2017, 4.7 million deaths worldwide were associated with obesity, accounting for 8% of all deaths. This figure was an increase from 4.5% in 1990. In fact, a meta-analysis that was undertaken of 239 prospective studies in four continents showed an increased all-cause mortality associated with both overweight and obesity (Global BMI Mortality Collaboration, 2016).

In the UK, hospital admissions resulting from obesity as a principal diagnosis escalated from 1,000 in the years 2001/2002 to 10,660 in 2017/2018. In the same time period, admissions owing to obesity being a primary or secondary condition increased from 29,000 to 711,000 (HSE 2014, NHS Digital, 2019). These increases are likely to be partly attributable to an increase in obesity reporting over this time period, especially where height and weight measures are a standard part of hospital admissions. In addition, overweight and obesity have been associated with higher health service use and costs compared to normal weight individuals, as found in Nortoft et al's., (2018) large observational cohort study that utilised UK and USA databases to analyse the relationship between BMI and healthcare resource utilization.

The economic strain on healthcare systems caused by the growing problem of obesity is increasing. A systematic review looking at the cost of obesity on different countries healthcare systems across the globe, concluded that between 0.7% and 2.8% of allocated budgets were spent on obesity-related problems (Withrow & Alter, 2011). Healthcare spending on obesity in the USA in 2016 was in excess of \$480 billion, with a further \$1.24 trillion indirectly lost to work costs (Waters & Graf, 2018), whereas in the UK, obesity-related diseases cost £6.1 billion in the same year, with this figure increasing to £27 billion when the impact of obesity is considered on the wider society. With the current trend, both these figures are forecasted to increase to £9.7 billion and £49.9 billion respectively, by 2050 (PHE, 2017).

Although some of these costs are due to surgery-specific expenses, such as bariatric surgery, numerous studies postulate that this economic burden has been mainly driven by an increase in the co-morbidities associated with obesity, including type 2 diabetes and cardiovascular disease (Withrow & Alter, 2011; Kim & Basu, 2016). These two main co-morbidities are discussed in more detail in the following sections.

### **1.3.1 Type 2 Diabetes Mellitus (T2DM)**

Type 2 diabetes mellitus (T2DM) is a chronic condition characterised by the production of insufficient amounts of insulin from pancreatic  $\beta$ -cells as well as peripheral insulin resistance, which ultimately results in impaired cellular glucose absorption (Al-Goblan et al., 2014). The link between obesity and T2DM is well established. Obesity, especially central obesity has been shown to decrease modulation of  $\beta$ -cell function and insulin sensitivity (Al-Goblan et al., 2014). Data from the International Diabetes Federation (IDF), which is a conglomerate of more

than 240 national diabetes associations in 168 countries and territories, showed that individuals with extreme obesity were five times more likely to be diagnosed with T2DM than those of normal weight. The large Nurses' Health Study and Nurses' Health Study II followed more than 200,000 participants over a period of 40 years, and concluded that obesity, and more specifically central obesity, significantly increased the risk of T2DM. Moreover, they found that an individual's risk for T2DM was increased by 14% for every 2 extra years of being obese (Ley et al., 2016).

In their published data, the IDF show a continued upward trajectory in global rates of T2DM. They report that by 2017, 1 in 11 adults aged 20-79 had T2DM globally, a total of 425 million adults. This figure is projected to increase to 629 million by 2045 within the same age group (IDF, 2019). T2DM accounted for the death of approximately 4 million adults in 2017, accounting for 10.7% of all-cause mortality within the aforementioned age category (IDF, 2019). This mortality rate is higher than that from the major infectious diseases (HIV/AIDS, tuberculosis and malaria) combined (IDF, 2019).

The National Diabetes Audit report for 2015/2016 in England and Wales estimated that individuals with T2DM had a 32% increased risk of death compared to those without the disease (HSE, 2018). According to NHS England, there are currently 3.4 million people with T2DM in England, with approximately 200,000 new diagnoses annually (NHS England, 2019). This figure remains conservative due to the numbers within populations globally that remain undiagnosed. IDF places this as a third to a half of cases (IDF, 2019). Public Health England (2014), using data from the National

Diabetes Audit, showed that 90% of people aged 16-54 in England in the years 2009-2010 with a diagnosis of T2DM were overweight or obese.

Currie et al., (2010) undertook a detailed study using data specific to T2DM and hospital admissions and identified that in 1994/95, incongruently, diabetic patients accounted for 8.7% of NHS inpatient spending, yet only comprised 2% of that demographic. This cost increased by around 50% to 12.3% of total inpatient cost by 2010. Within the primary care setting, the accrued cost of glucose-lowering medication increased from £343 million to 708 million between 2000 and 2008, (Currie et al., 2010). Currently, the NHS spends just under 9% of its annual budget on T2DM, a cost of around £8.8 billion (NHS England, 2019).

Meeks et al., (2016) conducted a systematic review and meta-analysis of published data examining prevalence of T2DM amongst ethnic minorities in Europe compared their white European counterparts. Their results found that the risk for T2DM was three to five times higher amongst South Asians, and two to three times higher amongst individuals from Sub-Saharan African, all compared to their European hosts. These data are further substantiated by the HSE (2004) which indicates substantially higher rates of T2DM in minority ethnic groups in England, up to 10%, with the highest figures recorded amongst African Caribbeans, compared to 4% in the general population. People from ethnic minority groups have a further propensity to progress from impaired glucose tolerance (IGT) to T2DM significantly quicker, or twice as fast as white populations (Hulman et al., 2017). In addition, in their meta-analysis, Meeks et al., (2016) showed that the prevalence of T2DM in some minority groups, such as Sub-Saharan Africans, was considerably lower in the region compared to what it was

amongst this group in Europe. Dietary and lifestyle changes, especially increased physical inactivity, may account for this.

### **1.3.2 Cardiovascular Disease**

Obesity is an independent risk factor for the genesis and progression of cardiovascular disease (CVD). Though its pathophysiology is complex and not completely understood, it actuates structural alterations of cardiovascular function through chronic inflammation and increases prevalence in comorbidities such as T2DM and hypertension, which further exacerbate the development of the disease (Bastien et al., 2014; Mandviwala et al. 2016). The Framingham Heart Study, a cross-sectional study that commenced in 1948 and followed a large cohort of participants and their offspring, analysed data from the 14 years prior to 2002. Obese subjects were found to be twice more at risk of heart failure than those of normal weight. Risk increased by 5% for men and 7% for women, for every BMI unit increase (Kenchiah et al., 2002).

Though mortality rates from CVD have almost halved over the last 30 years in the UK (PHE, 2019), it remains the current global leading cause of death, with an estimated 17.9 million people (31% of all deaths) succumbing to the disease in 2016 (WHO, 2017). Amongst other significant risk factors for development of the disease is physical inactivity and unhealthy diets, leading to obesity. Within Europe, CVD accounts for 45% of all deaths, and is the main cause of death amongst men and women in the majority of European countries - all except 12 for men and all except 2 for women (European Cardiovascular Disease Statistics, 2017).

Recent data published by the British Heart Foundation (BHF, 2020) CVD accounted for 167,116 deaths in 2018 in the UK, with an estimated 7.4 million people living with the disease. CVD accounts for more than 40,000 premature deaths annually, i.e., in individuals less than 75 years. Direct UK health care costs attributable to CVD is currently estimated to be £9 billion, whilst cost to economy (including associated loss of productivity and costs of informal care) estimated at £19 billion (BHF, 2020).

Data obtained from Jalal et al., (2019) establish that South Asians living in the UK are 40% more likely than the general population to die from Coronary Heart Disease (CHD), a component of CVD, and at a younger age (before the age of 40, in men). The prevalence is similar amongst this demographic in the Indian subcontinent, showing a genetic predisposition towards the disease, exacerbated by the obesogenic environment as seen in the West. On the contrary, marked protection from CHD is observed amongst African Caribbeans in the UK, though mortality resulting from stroke is much higher among them than the general population and South Asians. Equally high rates are noted in Sub-Saharan Africa (Tillin et al., 2013).

#### **1.4 Treatment of Obesity Including Bariatric Surgery**

This section explores the weight management Tier system and the different types of bariatric surgery available in the UK.

##### **1.4.1 The Weight Management Tier System**

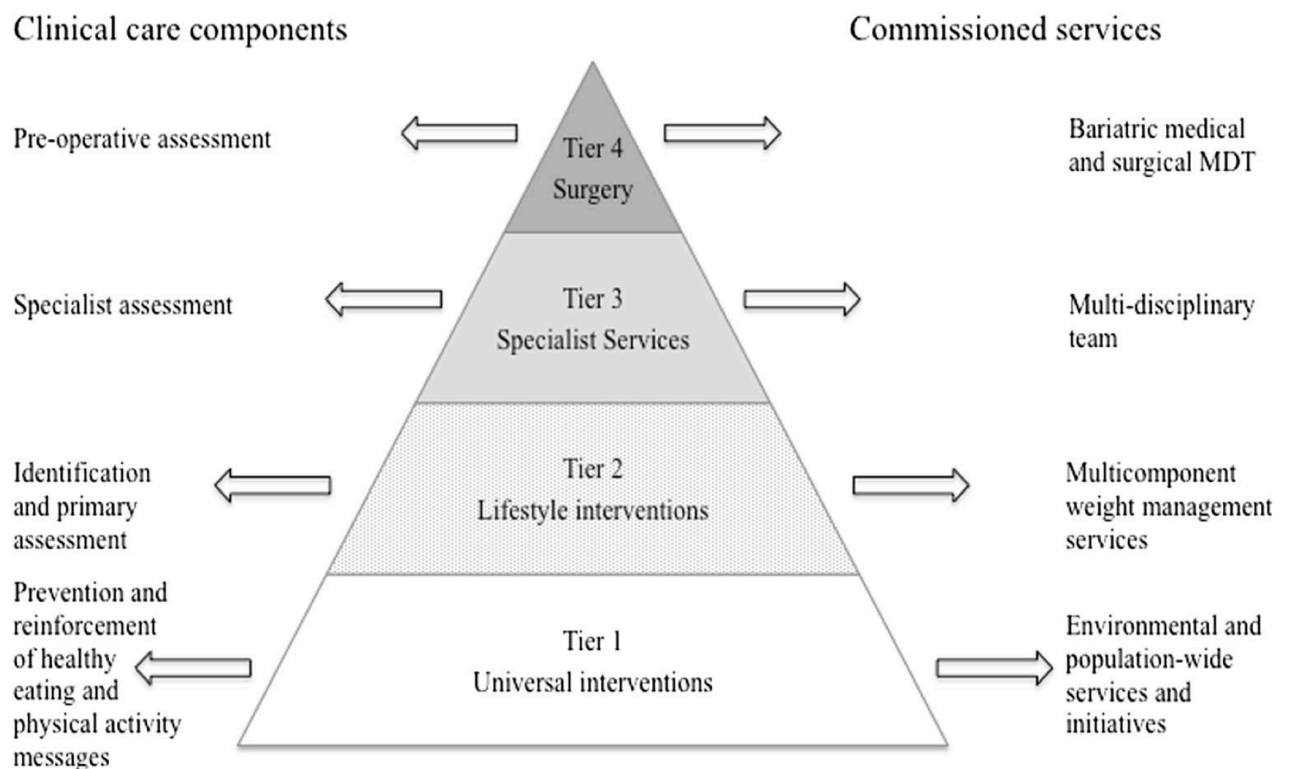
The Department of Health, in its 'Call to action of obesity' paper, set to reduce obesity prevalence in England by 2020 and acknowledged the strategic importance of public health preventative interventions to tackle overweight, in conjunction with



clinical services targeted at those with complex or/and morbid obesity (DoH, 2009). Following this, the National Institute for Clinical Excellence (NICE) set out guidelines stipulating weight management starting at a primary care level and progressing into secondary care for those with more complex obesity in 2006, which was then amended in 2014 (NICE, 2014). This resulted in the establishment of the 4 Tiers of weight management.

Tier 1 focuses on universal interventions in regard to the prevention of obesity through healthy eating and physical activity through population-wide services and initiatives. Tier 2 targets adults who are overweight and obese ( $\text{BMI} > 25 \text{ kg/m}^2$ ) through self or GP identification and primary assessments. Focus is placed on lifestyle interventions (dietary support, physical activity and behavioural change) as a means to revert back to a healthy weight, which typically run over a twelve-week period. Individuals can either obtain referrals from their GPs in which case costs for the intervention are covered by the local authority or Clinical Commissioning Group (CCG) or can self-fund attendance of commercial weight loss groups such as Weight Watchers or Slimming World (NICE, 2014). Tier 3 services are appointed by CCGs based in either primary or secondary care to provide specialist obesity services to patients with a  $\text{BMI} < 30 \text{ kg/m}^2$  where Tier 2 interventions have been ineffective,  $\text{BMI}$  of  $30 \text{ kg/m}^2$  with T2DM,  $\text{BMI}$  of  $35 \text{ kg/m}^2$  with two or more comorbidities, or a  $\text{BMI} > 40 \text{ kg/m}^2$ . It aims to refer these patients on to surgical assessment with the ultimate aim of bariatric surgery (Tier 4), or if the patient is unwilling to undergo surgery or successfully records significant weight loss as a result of the intervention, are referred back to Tier 2 management. Tier 4 is the final step of the pathway, which

involves preparation and undergoing bariatric surgery (NICE, 2016). The figure below outlines these 4 Tiers.



**Figure 1:** The 4 Tier system of the NICE established weight management pathway. Adapted from Welbourn et. Al., (2016)

With the ever-increasing prevalence of obesity, it is evident that Tier 1 has remained ineffective. Evidence points to successful weight loss in the short term through Tier 2 interventions (Loveman et al., 2011). Small amounts of sustained weight loss (approximately 5% of total body weight) are associated with modest to significant improvements in health risk factors, such as improvements to blood pressure and better regulation of blood glucose (American Diabetes Association, 2002; Klein et al., 2004; Franz et al., 2007).

There is evidence for underrepresentation of ethnic minorities in Tier 2 services. A large mixed methods evaluation of seven Tier 2 weight management programmes (WMPs) carried out in the North of England found that the majority patients were white (Ells et al., 2018); this is consistent with government statistics on regional ethnicity where 95.7% of the population are white (GOV.UK; 2018). However, despite the small ethnic minority population, the number of ethnic minority participants was disproportionately small to represent ethnicity data by district (Ells et al., 2018). Findings from a meta-synthesis (Sutcliffe et al., 2016) of qualitative studies analysing features of successful Tier 2 WMPs for adults identified an increased likelihood of South Asians not participating, due to language barriers. In addition, other studies have highlighted the importance of cultural adaptations of programmes to promote equal access to care for ethnic minorities (Morrison et al., 2014).

The reluctance of ethnic minorities to engage in Tier 2 services was identified within the East Midlands region, with culturally tailored WMPs implemented to address this issue (Bird et al., 2017). The Why Weight project sought to examine current obesity prevention and service pathways in the region and promote development and application of evidence-based obesity prevention and treatment services. The Diet, Healthy and Active Leicester (DHAL) programme tailored for South Asians was offered as a Tier 1 service, with four universal weight management services within the region including the lower recommended BMI threshold. Where a further three services indicated within their specification the requirement for tailoring services to meet the needs of ethnic minorities, only one service specified the requirement for the provision of translation services (Bird et al., 2017). However, there is a lack of evaluation of these services to assess the uptake of these services by the targeted

demographic. Bird et al., (2017) further express the absence of high-quality data supporting effective Tier 1 and 2 interventions focusing on so called ‘harder to reach’ populations (which include ethnic minority groups), highlighting the importance of tailored, effective interventions for these groups rather than simply emphasising the need for intervention.

Moreover, it appears that the NICE recommended lower BMI thresholds for ‘increased’ and ‘high’ risk (refer to Table 3 on page 8) applicable to South Asians are not being universally adhered to. Read and Logue’s (2015) survey examining the provision, access and interventions used in Tiers 2 and 3 WMPs in Scotland found that only two of the nine participating health boards reported different BMI eligibility criteria for South Asians.

Though no published data are available reviewing the efficacy of the DHAL programme on weight loss, data examining other community based WMPs have been shown to result in weight loss. McCombie et al., (2012) conducted a literature review of primary care/community-based weight management interventions (including commercial weight loss programmes - Weight Watchers, Slimming World and Rosemary Conley) which analysed efficacy relative to weight loss, cost and variations in populations served by these programmes. They found for the majority of studies, clinically beneficial weight loss was recorded and maintained over the 12-month period of data collection (where these data were available).

Tier 3 services have similarly been demonstrated as being effective in achieving weight loss (Jennings et al., 2014). The only published systematic review examining service characteristics and effectiveness of Tier 3 specialist services in the UK

(Brown et al., 2017) found that clinically significant weight loss was achieved through this service. However, the majority of studies included in the review had a participant dropout rate of 43%-62%, and most of their data were obtained from observational studies. Several studies showed substantial reductions in HbA1c (glycated haemoglobin) and improved glycaemic control following reduction in BMI in those with T2DM. In addition, the outcome following Roux-en-Y gastric bypass (discussed in detail on page 24) included a significantly increased percentage weight loss; this was attributed to patient support from the multi-disciplinary team (MDT) in the lead up to surgery (NHS England, 2013).

Unfortunately, there are no culturally tailored Tier 3 services that target ethnic minorities, nor studies evaluating the progression of this demographic from Tier 2 to 3 services. In a large systematic review examining the characteristics, effectiveness and practice implications of Tier 3 services in the UK, no studies included any information on ethnic minority patients (Brown et al., 2017).

However, both Tiers 2 and 3 have been criticized. Evidence points to the inefficacy of Tier 2 services in demonstrating substantial or long-term weight loss, especially in those with morbid or complex obesity (Patterson et al., 2003; De Silva & Bloom, 2012). The majority of overweight and obese individuals who do lose weight following lifestyle modifications will typically regain the weight within five years (De Silva & Bloom, 2012). A follow up study investigating changes in the resting metabolic rate of participants from the popular television hit series 'Biggest Loser', showed that the 14 of the 16 subjects who participated, had a baseline weight of  $148.9 \pm 40.5$ kg and lost  $58.3 \pm 24.9$ kg by the end of the 30-week programme which

focused on intense physical activity and significant dietary changes. However, 6 years later,  $41.0 \pm 31.3$ kg of the lost weight was regained (Fothergill et al., 2016).

A literature review analysing weight loss following Tier 2 behavioural interventions in overweight and obese participants at 12-month and 24-month time points within a primary care setting found that from pooled estimates, participants were unable to obtain a clinically significant weight loss of  $\geq 5\%$  of their baseline weight (Booth et al., 2014), which was contrary to McCombie et al's., (2012) findings.

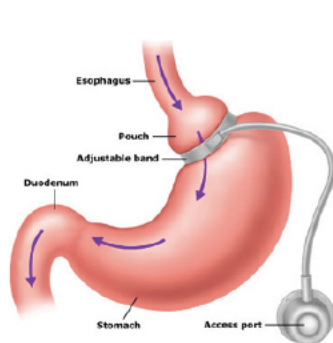
Kininmonth & Bradbury (2016) conducted a study examining the effectiveness of a Tier 3 service to achieve clinically significant weight loss. The mean baseline weight was 138.9kg, with the mean baseline BMI being  $49.4\text{kg/m}^2$ . After 12 weeks and 6 months, these had decreased to 136.4kg and  $48.6\text{kg/m}^2$ , and 136.3kg and  $48.5\text{kg/m}^2$  respectively. Only 16% of patients were able to achieve a weight loss of  $\geq 5\%$  of their baseline weight. This exemplifies the inadequacy of behavioural lifestyle interventions in ameliorating morbid obesity. Moreover, there is a lack of NICE specified guidelines on Tier 3 services. Though the MDT generally comprises of a physician, specialist nurse, specialist dietician, psychologist or psychiatrist and physiotherapist, Brown et al's., (2017) literature review found that there was no information on the optimum composition of the MDT. In addition, there were variations in pharmacotherapy for obesity and BMI eligibility criteria across all the established services.

#### **1.4.2 The Use of Bariatric Surgery to Treat Extreme and Complex Obesity**

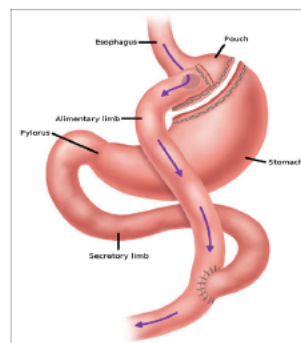
Bariatric surgery remains the single most effective weight loss intervention to date, with respect to both quantity of weight lost, and sustainability of weight loss in patients with class III obesity (Welbourn et al., 2014). It is also the only weight loss

treatment option that results in almost immediate improvements in obesity related comorbidities (Jackson et al., 2014). The recommendations by NICE (2014) for consideration of bariatric surgery are those with BMI  $\geq 40$  kg/m<sup>2</sup> and for whom all other weight loss interventions have failed, and those with BMI  $\geq 35$  kg/m<sup>2</sup> with associated comorbidities, or complex obesity.

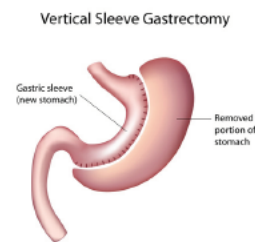
In the UK, gastric banding, gastric bypass and sleeve gastrectomy accounted for 95% of all bariatric operations between 2013 and 2018 (Small et al., 2020). See Figures 2-4:



**Figure 2:** Schematic showing LAGB (Adapted from Aspire)



**Figure 3:** Schematic showing RYGB (Adapted from Lau et al., 2013)



**Figure 4:** Schematic showing VSG (Adapted from Bariatric Surgery Source)

The Laparoscopic adjustable gastric banding (LAGB or AGB) involves placing an adjustable silicone band around the upper stomach, which limits the amount of food that can be ingested by forming a small pouch (refer to Fig 2). A small portal beneath the skin that is attached to the band allows its diameter to be altered by injecting or withdrawing saline (NOO, 2010). This procedure is currently almost exclusively performed in England, accounting for 11.5% of all bariatric procedures done in the UK for the period 2013-2018, a reduction from 17.8% for the period 2011-2013 (Small et al., 2020).

In the laparoscopic or open Roux-en-Y gastric bypass (RYGB) parts of the stomach and small intestines are bypassed by creating a small pouch from the original stomach on one end and attaching it further along the small intestine on the other end (see Fig 3). The procedure works not only anatomically but also physiologically, by increasing the anorexigenic hormones PYY and GLP1 and subsequently suppressing appetite and hence decreasing food intake. For the period 2013-2018, RYGB comprised 48.9% of all bariatric procedures undertaken in the UK, an increase from 46.6% for the period 2011-2013 (Welbourn et al., 2014; Small et al., 2020).

The laparoscopic or open vertical sleeve gastrectomy (VSG) comprises of dividing the stomach lengthwise, decreasing its size by approximately 75% (see Fig 3). Digestion and normal functioning of the stomach are not modified, and the pyloric valve beneath the stomach remains unaltered. The surgery appears to have an anorexigenic effect on appetite similarly to RYGB, thereby restricting food intake. It is sometimes performed as the first stage in severely obese patients before progressing to RYGB, for whom a single stage procedure could be dangerous or technically difficult (NOO, 2010). This procedure constituted 35.4% for the period 2013-2018 of all bariatric operations in the UK, increasing from 20.8% for the period 2011-2013 (Small et al., 2020).

Bariatric surgery has been associated with several improved metabolic changes, besides desired weight loss. Up to 80% of T2DM patients reported a complete resolution of the disease following RYGB, with improvements noted in other components of the metabolic syndrome, such as hypertension (Small et al., 2020;



Welbourn et al., 2014; NOO, 2010). Schauer et al., (2012) recorded improved glycaemic control in T2DM patients following RYGB, and Leonetti et al., (2012) outline a more effective resolution of the diabetic state following SG. Even more impressive, though not fully understood, is that the amelioration of hyperglycaemia occurs only a few days following surgery. These beneficial metabolic changes have been predominantly attributed to a change in properties of gastro-intestinal hormones secreted, with an increase in production of hormones with antidiabetic characteristics and a reduction in secretion of those with diabetic properties (Knop & Taylor, 2013).

Bariatric surgery has also been shown to decrease the risk of cardiovascular episodes, hence consequently reducing premature mortality from CVD (Kwok et al., 2014; Welbourn et al., 2014). Functional capacity, described as the ability to climb three flights of stairs without resting, was seen to improve dramatically. 70% of 8,000 patients who were functionally impaired prior to surgery, were recorded as not having this problem at all, a year post surgery (Welbourn et al., 2014). A systematic review and meta-analysis carried out by Kwok et al., (2014) comparing cardiovascular events in obese individuals post bariatric surgery with a non-surgical intervention control group, showed an overall decrease in cardiovascular events such as stroke and myocardial infarction. Cardioprotective risk factors were also seen to improve significantly, with a decrease in hyperlipidaemia and hypertension. At the cellular level, bariatric surgery seemingly slows the process of atherosclerosis through the reduction of systemic inflammation and oxidative stress. In addition, weight reduction following the surgery was seen to increase general physical activity, which in turn reversed CVD risk (Kwok et al., 2014).

The weight loss achieved through bariatric surgery remains the most effective relative to amount and long-term maintenance. The NBSR records weight loss at 3 years post procedure: those with a BMI  $<40 \text{ kg/m}^2$  recorded being at 64% of pre-surgical body weight; those with a BMI of  $40.0\text{-}49.9 \text{ kg/m}^2$  recorded being at 52% of pre-surgical body weight; and those with a BMI  $>49.9 \text{ kg/m}^2$  recorded being at 41% of pre-surgical body weight (Welbourn et al., 2014). O'Brien (2015) conducted systematic reviews of RCTs on bariatric surgery as well as drew on expert opinion using data obtained at the end of 2011. Results showed that patients who had bariatric procedures were able to maintain more than 54% - 71% excess weight loss after 10 years.

The economic cost of bariatric surgery has been widely debated. The NBSR estimates that the UK GDP would gain a total of £1.3 billion from paid employment within 3 years, not including £151 million in reduced benefits costs, if 140,000 of eligible patients currently unemployed due to obesity complications underwent bariatric surgery and returned to work (Welbourn et al., 2014). Further data suggest that savings from long-term diabetes medication would equate to the surgery paying for itself within 26 months (Klein et al., 2011). When additional economic factors are considered, such as the cost of associated complications, it has been suggested that the surgery would pay for itself within a year (Welbourn et al., 2014). These are important implications to consider in light of the previously discussed cost of obesity on the NHS, and further assert the argument for the increased accessibility for bariatric surgery.

Bariatric surgery is, however, not without its criticisms. Many researchers indicate the dearth of knowledge regarding the long-term outcomes of bariatric surgery, alluding to yet unknown effects on the patients (O'Brien et al., 2013). This however is arguable, as published data evidencing these outcomes are available. Where O'Brien's review (2013) shows substantial weight loss maintenance following LAGB at 15 years, Christou et al's., (2006) retrospective study of patients who had had various bariatric procedures found significant weight regain after RYGB at the 10 year follow up. Its overall cost and invasiveness have also been criticized, especially in countries like the USA where healthcare is largely privatised (Shadid et al., 2015). Patterson et al., (2003) allude to the refusal of many patients who qualify for bariatric surgery by insurance companies, based on a "lack of medical necessity".

High relapse rates, hence necessitating re-operation, particularly following gastric bypass and banding have been frequently cited, up to 35% for the former, and 65% for the latter (Christou et al., 2006; Naef et al., 2010). O'Brien (2015), who places these figures at 8-60% for LAGB and 8-38% for RYGB, states that it is unreasonable to expect that the single procedure should be sufficient to sustain weight loss for a lifetime and argue for the acceptance of revisions as part of the overall treatment. The issue of resources cannot be overlooked, as well the demand for bariatric surgeons surpassing supply. The NBSR attribute the under-funding of bariatric surgery by commissioning groups as a contributor to the ultimate few numbers of procedures performed. To gain perspective, though Sweden as a population of 9.87 million in 2013, the rate of bariatric operations was 78 per 100,000. These figures were 13 per 100,000 for the British population of 63 million in the same year (Welbourn, 2014).

## **1.5 Ethnic-related Disparities in the Uptake and Outcomes of Bariatric Surgery**

This section discusses some of the ethnic disparities in within health and the uptake of bariatric surgery, the attitudes and perceptions of ethnic minorities towards bariatric surgery and experiences of HCPs with ethnic minorities in relation to weight loss and bariatric surgery. The section also discusses the outcomes of surgery based on ethnicity.

### **1.5.1 Disparities in the uptake of bariatric surgery between ethnic groups in the UK**

Old et al., (2013) undertook a retrospective data analysis of bariatric surgeries performed in the UK and Ireland by ethnicity, from the 2011 NBSR. Their results showed remarkable consistency in the uptake of bariatric surgery across the three ethnic groups analysed (white, Asian and Black), with each group recording 5.2 procedures per 1000. In as much as they concluded that bariatric surgery was equitable across ethnicities in the UK and Ireland, they acknowledged some likely sources of error in their estimated figures. Firstly, the analysis did not differentiate between public and private funded procedures, resulting in a distortion of figures where any ethnic group could be over or under-represented in either private or public healthcare. Secondly, ethnic minority populations vary regionally across the UK, with surgeons serving areas with over- or under-represented ethnic minority populations not submitting data; hence submission of data into the NBSR dataset is likely to have been inconsistent as it was incomplete at the time of the article's publication. Moreover, the NBSR third report only published recently does not provide an analysis of bariatric procedures based on ethnicity (Small et al., 2020).

Ultimately, the dearth of contemporaneous data available describing the prevalence of obesity within ethnic minority groups in the UK makes it difficult to conclusively provide an accurate measure for the uptake of bariatric surgery within these groups. Based on data related to differential prevalence of obesity and risks for T2DM and CHD within ethnic minority communities compared to their white counterparts obtained from the 2004 Health Survey for England, it is more than likely that these groups are under-represented (Welbourn, 2014). In addition, numerous contemporaneous data from other high-income Western countries with established ethnic minority groups point to the underrepresentation of these groups in bariatric surgery utilisation, even though they are evidenced to have higher population needs compared to the white majority populations (Stanford et al., 2015; Bhogal et al., 2015; Taylor et al., 2019).

### **1.5.2 Attitudes and perceptions of ethnic minorities towards bariatric surgery**

There is a dearth of published data from the UK exploring the opinions and attitudes of ethnic minorities towards bariatric surgery. A qualitative study by Moore et al., (2016) examined the perceptions and attitudes of African Americans regarding bariatric surgery. Participants appeared to be misinformed about the surgery, often obtaining information through word of mouth from family and friends, rather than health professionals. Moreover, they expressed the necessity for HCPs to initiate the conversation about weight loss and bariatric surgery, with the majority of participants citing never having the conversation with their HCP despite meeting the criteria for surgery. Noonan et al., (2016) conducted a large literature review examining national statistics on African American health and found that 30% of African Americans attributed the outcome of their health to destiny or fate, with only 50% regarded their

health as a high priority. The authors of this study concluded there may be a decreased likelihood of this demographic being proactive in seeking health information.

Participants in Moore et al's., (2016) study further conveyed the negative impact of gross underrepresentation of African American HCPs on health education and bariatric surgery specifically. Noonan et al., (2016) found that this demographic constituted only 5.3% of physicians, 10% of nurses, 8% of physician assistants and 5% of pharmacists, even though they composed 13.6% of the working age population. Taylor et al., (2019) explored structural barriers that influenced the disproportionately high attrition rates of Pacific Islander patients in bariatric surgery preoperative care. They found that Pacific Islander patients felt they were better understood, less judged, and established a better emotional connection to Pacific Islander HCPs, and hence were more likely to complete the preoperative process and to undergo bariatric surgery with these professionals, than if they were seen by non-Pacific Islander professionals.

Additionally, the African American participants in Moore et al's., (2016) study associated bariatric surgery with vanity, expressing that they felt there is greater acceptability for the surgery amongst women influenced by societal expectations for slimmer silhouettes, and amongst white individuals, who were described as generally being more vain than African Americans. In fact, none of the participants expressed a willingness to utilise the surgery, despite meeting both the BMI and comorbidity criteria, preferring instead to lose weight through diet and exercise.

Several studies have shown that a high percentage of patients referred for bariatric surgery do not follow through, for unknown reasons (Merrell et al., 2012; Pitzul et al., 2014). Ofori et al., (2020) conducted a qualitative study with an ethnically diverse post-bariatric surgery sample to explore the motivating factors informing their decision for surgery. They found that particularly amongst the ethnic minority participants, individuals were more likely to undergo surgery if they felt fully supported by their primary care physician. The ethnic minority participants did, however, express difficulty in cultivating and sustaining healthy eating choices due to the lack of access to supermarkets stocked with healthy options and restaurants providing nutritious menus; this made it difficult to adhere to pre-operative guidelines.

### **1.5.3 Healthcare professionals (HCPs) experiences of ethnic minority individuals and bariatric surgery**

There is a dearth of data exploring the experiences of UK healthcare professionals (HCPs) with regards to ethnic minorities, weight loss and bariatric surgery. Language barriers have been most commonly identified as the biggest obstacle affecting the general provision of healthcare to these groups by HCPs in the UK (Falla et al., 2017; Ali & Watson, 2018).

Several studies have identified that in general, weight loss and bariatric surgery are more likely to occur in patients when initiated by their GP; and more so, at an earlier stage of their obesity and/or increased severity in comorbidities (Owen-Smith et al., 2016; Moore et al., 2016). A qualitative study by Owen-Smith et al., (2016) explored the experiences of patients and clinicians in accessing bariatric surgery on the NHS, finding that all patient participants had experienced barriers in consulting with their

GP about their weight. Where established relationships between the two parties did not exist, raising weight as an issue was especially difficult and typically a last resort for patients. When the topic of weight loss had been raised, some expressed frustration with repetitive suggestions of lifestyle interventions even where these were constantly ineffective, feeling that GPs were not really receptive to their often-desperate desire for weight loss. In fact, other studies examining this matter from the GPs' perspectives show that they indeed struggle to raise weight as an issue with their patients. They acknowledged concerns such as time constraints, the sensitivity of the subject and stigma as barriers that prevent them from raising the subject of weight at primary care level (Laidlow et al., 2015; Blackburn et al., 2015).

Taylor et al.'s (2019) study that focused on HCPs interactions with Pacific Islander patients in New Zealand at the preoperative stage leading to bariatric surgery highlighted some key points. First was the importance of HCPs' understanding of Pacific Islander culture, identified as being paramount to these interactions. Also, the significance of increased time allowance for these consultations to allow trust to build between the two parties facilitated them to ask questions where they would normally be reticent.

A study by Lewis et al., (2016) conducted in the USA sought to compare patients' health care experiences in relation to weight and across different ethnicities in a large cohort of 2725 health plan members. They found that African American respondents were more likely than white respondents to report that their weight had been discussed more frequently by HCPs. This sub-group of participants was also more likely to report their wish for increased conversations regarding weight with their clinicians. In contrast, Bleich et al's., (2012) study of the impact of patient-physician



race concordance on weight-related counselling revealed that black obese patients received less exercise advice after seeing white doctors compared to white obese patients that consulted with white doctors.

As such, this MPhil research offers insights into the overall interactions and experiences of HCPs with ethnic minority groups in the context of weight loss and bariatric surgery.

#### **1.5.4 Qualitative Research**

Collectively, a plethora of quantitative data supports the need for this research project. Quantitative evidence of the disproportionate numbers of ethnic minority adults affected by obesity in the UK compared to white British adults, coupled with greater propensities towards T2DM and CVD provide a compelling case for the increase in bariatric procedures amongst this demographic. There is a paucity of published data investigating the uptake of bariatric surgery amongst ethnic minority groups.

Lynch et al., (2007) conducted a qualitative study that utilised focus groups to examine obese African American women's perceptions regarding barriers to weight loss and bariatric surgery. Interestingly, 85% of participants knew someone who had had bariatric surgery. Participants cited that the main impediments for bariatric surgery was the idea of it being too extreme an option, with associated fears and concerns about the risks and complications of the actual procedure. They also felt that the drastic weight loss resulting from surgery made individuals look ill. In addition, the positive cultural identification with larger body sizes made them reluctant to lose weight, with participants citing the desire to look like the other larger women in their families. Lynch et al., (2007) appear to be the only published study of this kind, where

barriers to bariatric surgery amongst an ethnic minority group are qualitatively explored. In the UK, no studies of this kind could be identified in the literature, further justifying the significant contribution of this project.

Qualitative research will provide rich data on the holistic experience of both the ethnic minorities and the healthcare professionals in relation to the weight management Tier pathway, including bariatric surgery. It is anticipated that this will in turn shed light on any loopholes or/and barriers to undertaking bariatric surgery, which may ultimately inform policy and practice to and result in better health outcomes for these communities.

### **1.5.5 Health inequalities amongst ethnic groups in the UK population**

Race and ethnicity are complex phenomena, though they are simplified to refer to differences based on phenotypic features, and religious and cultural characteristics, respectively (Bhopal, 2007). There is a global recognition for the need to address health inequity based on ethnicity between the often-white European majority and ethnic minorities. In the UK, the problem was noted as early as 1965 in the White Paper, *Immigration from the Commonwealth*, that sought to tackle the issue of migrant health, demonstrates the age of the problem (Salway et al., 2016).

Ethnic minority populations have often experienced socio-economic inequalities, often times due to racism, discrimination and area deprivation. In addition, their lower socio-economic status has led to poor access to good quality healthcare – especially in societies where healthcare is privatised (Nazroo, 2014). In the UK, The Marmot Review (2010) highlighted the direct correlation between low socio-economic status

and poor health, the role of social inequalities in determining health inequalities, and the urgency in tackling these at a national level. Unfortunately, these inequalities have persisted over the years, in spite of government manifestos to address the same (HSE, 2004; Nazroo, 2014; Chattopadhyay, 2019). Cooper (2003) states that across a range of social indicators, Pakistanis and Bangladeshis were categorised as being the poorest and most deprived, with African-Caribbeans and Indians being more socio-economically disadvantaged than their white counterparts.

The Health Survey for England 2004 focused on the health of people from minority ethnic communities. The data revealed that Pakistani and Bangladeshi men and women, and Black Caribbean women were more likely than the general population to report bad or very bad health. Furthermore, Bangladeshi men and Pakistani women were more likely to report a limiting longstanding illness compared to the general population, with Pakistani men and women more likely to report acute sickness than the general population. Above all, a significantly higher number of all minority ethnic groups reported a severe lack of social support compared to the general population (Natarajan, 2006). This was echoed in a study undertaken by Ochieng' (2012), who found that non-English speaking African women described an unavailability of health promotion support networks.

An analysis of the health of ethnic minorities by Nazroo (2014) concluded that Bangladeshi had the poorest health, followed by Pakistani, African Caribbeans and Indians; African Caribbean men had high rates of admission to psychiatric hospitals following a diagnosis of a psychotic illness; South Asian young women, especially those born in India had high rates of suicide; and high rates of sexually transmitted

infection among African Caribbeans; all compared to white groups. As already discussed earlier, South Asian, African and African Caribbean populations have the highest rates of T2DM, and CVD compared to white Europeans. Finally, data from the HSE (2004) showed that ethnic minorities had the lowest levels of physical activity, further exacerbating their risk of CVD and T2DM.

Though central government have pledged to remain committed to the provision of equal health services with a particular focus on multi-ethnic populations, there remains a divide between these commitments and their actual translation on the ground (Salway et al., 2016). Salway et al., (2016) undertook a large multidisciplinary study between 2010 and 2013, which sought to examine the progress of the equity of different standards of health care provided within the NHS in England.

Their findings indicated that at a macro-level, ethnic diversity and inequity remained a marginalised concern, with limited resources provided and a lack of targets or performance indicators. Issues relating to the health needs of ethnic minorities were often not endorsed by senior management hence having no impact on commissioning practice. Instead of responding to the healthcare needs of the local populations through incorporating ethnic diversity and equity, focus appeared to be largely on seeming to adhere to the legal requirement of meeting outlined mandates evidenced by a tick box against each one, in order to avoid penalties. Ochieng's (2012) study carried out in the north of England revealed that a lack of understanding of the needs of the African population within the community translated to poor communication between health workers and the group, hence insufficient access to both formal and informal health promotion processes and services.

Another obstacle identified at macro-level was senior leaders' ambivalence towards ethnic equity, which sometimes manifested as active resistance. Though documentation existed citing ethnic inequity within the healthcare system, there were no strategies in place to translate recommendations on the ground, or performance indicators to measure outcomes. In addition, Salway et al., (2016) found examples of a deliberate lack of reaction by commissioners to low service uptake by ethnic minority individuals, because they felt ill-equipped to tackle issues and drive change.

Ultimately, this multidisciplinary study highlighted the marginalisation of the needs and experiences of ethnic minority communities, and their peripheral position in regard to commissioning processes and decision-making groups. Conversely, significantly better outcomes resulted when commissioners were intentional about engaging meaningfully with ethnic minority communities (Salway et al., 2016).

### **1.5.6 A Comparison of bariatric surgery outcomes amongst ethnic groups**

There are currently no UK based data addressing the outcomes of bariatric surgery amongst minority ethnic patients in comparison to white patients. The 3<sup>rd</sup> NBSR report, due to be released in 2020, may provide this information.

Sudan et al., (2014) carried out a longitudinal study of 108,333 white, Black and Hispanic patients who had undergone the RYGB procedure using data obtained from the Bariatric Outcomes Longitudinal Database (BOLD) in the USA. They sought to examine whether the distribution of patients seeking bariatric surgery was influenced by ethnicity and to determine whether surgery outcomes varied depending also on ethnicity. Follow up data a year post-surgery showed that both weight loss and improvement of comorbidities tended to be less amongst Black individuals than white

and Hispanic individuals. Black individuals were found at baseline to be younger and heavier (Blacks - BMI 50 kg/m<sup>2</sup>; Hispanics - BMI 48 kg/m<sup>2</sup>; whites – BMI 47.4 kg/m<sup>2</sup>) and more hypertensive (Blacks - 57%; Hispanics - 41%; whites - 52%). However, the percentage decrease in hypertension one-year post surgery was significantly less among Black participants, at – 35%, whilst Hispanic and white participants recorded – 50% and – 49% decrease, respectively.

A similar outcome was observed in the resolution of T2DM, where Blacks registered the lowest improvement. Similar results were seen in BMI. Mean BMI decreased to 31.6±6.7 kg/m<sup>2</sup> in white participants, 32.6±7 kg/m<sup>2</sup> in Hispanic participants and to 35.0±7.5 kg/m<sup>2</sup> in Black participants. Hispanic participants experienced the greatest decline in obstructive sleep apnoea and gastro-oesophageal reflux disease in addition to hypertension, as compared to whites and Black participants. The poorer outcome in the resolution of hypertension in Black participants could be explained by a more advanced stage of the disease at baseline.

The National Diabetes Information Clearinghouse (2011) identified the risk of being diagnosed with T2DM as being 66% and 77% higher amongst Hispanic and Black individuals respectively, as compared to their white counterparts. However, Sudan et al., (2014) found that at baseline, more white individuals had T2DM than either Black or Hispanic individuals, at 32%, 30.4% and 31.6%, respectively. This difference has been attributed to disparities in socioeconomic factors such as availability of health insurance, resulting in a mismatch between those patients accessing surgery and the number of people in the general population eligible for surgery.

Ultimately, Sudan et al., (2014) observed remarkable weight loss and resolution of obesity-related comorbidities amongst Black individuals, even though below that of white and Hispanic individuals. This is important because Black individuals currently constitute 14% of the American population, with US census data showing that the proportion of this demographic having increased in the population between 2000 and 2010. With such a significantly growing demographic coupled with their obesity rates (26% with BMI  $\geq 35$  kg/m<sup>2</sup> compared to 15.5% of the total population), data pointing to positive outcomes post-surgery are important in underpinning policy and interventions to facilitate increased uptake of bariatric surgery.

## **1.6 Conclusion**

This study reports the perceptions of individuals from ethnic minority communities regarding weight loss and bariatric surgery. As no published studies have been identified in the literature exploring the experiences of healthcare professionals within the weight management Tier system in relation to obese ethnic minority individuals, this project will additionally provide insightful information. With both points of view, it is hoped that knowledge about perceptions of weight loss and bariatric surgery in this demographic will help healthcare professionals to better tailor approaches that will result in an increased uptake of surgery.

## **CHAPTER 2 - METHODOLOGY**

### **2.1 Introduction**

This chapter provides an outline of the methodology used in this MPhil research project. An overview of qualitative research approaches is provided, which includes a description of the conceptual and analytical differences between qualitative and quantitative research. This includes an overview of the differences in validity and reliability between these two methodological approaches. A clear rationale for the research design and data analytical processes chosen is also provided.

### **2.2 Research Approaches**

Research approaches are blueprints and methods for research studies that encapsulate everything from general assumptions to specific methods for data collection, analysis and interpretation. There are three research approaches typically adopted to study phenomena: Quantitative, Qualitative and Mixed Methods. This chapter will discuss Qualitative research approaches in detail, as this is the approach selected for this research project.

Qualitative research places the observer in the world, making the world visible and transforming it into a series of representations including interviews, recordings, field notes, photographs and conversations. Phenomena are studied in their natural settings and interpreted through the meanings people bring to them (Denzin & Lincoln, 2011). This project necessitated the researcher to place herself in the participants' world through focus groups and interviews, discussing bariatric surgery as a central theme and exploring how they attach meaning to it.



### **2.2.1 Philosophic Assumptions**

Research is enshrined within philosophy. These philosophical assumptions are rooted in the researchers training and experiences, and determine how research questions are formulated, influencing how resultant data are collected (Creswell & Poth, 2018). The philosophical assumptions considered when undertaking a qualitative study have been discussed by several authors who have identified these into four: ontological, epistemological, axiological and methodology (Crotty, 1998; Denzin & Lincoln, 2011; Creswell & Poth, 2018).

The ontological aspect is concerned with reality or what actually exists in the world that humans can obtain knowledge about. Qualitative researchers necessarily embrace multiple realities; these vary from their own, to their participants (and even among different participants), to their readers (Moon & Blackman, 2014). This is evidenced in this project through the focus groups and interviews, with participants' perspectives cited verbatim in Chapters 3 and 4. There is demonstration of different realities amongst participants, who present different perspectives in regard to singular themes.

Epistemology involves the nature of knowledge and methods of knowing and learning about social reality (Moon & Blackman, 2014). The researcher places themselves as close to the participant as possible, in their 'field', to learn about them and ultimately obtain subjective experiences about the study phenomenon (Creswell & Poth, 2018). In this MPhil research project, the researcher sought to obtain this close context by conducting all focus groups within the participants' locale, with each setting being a regular and familiar venue normally used by the same. These included a Gurdwara

and local community centres. Similarly, all interviews with HCPs were conducted within participants' work areas.

The axiological assumption concerns the values that the researcher brings to the study. The researcher indicates their values and biases as well as the value-laden nature of data obtained from the field. They also identify their "positionality" relative to the context and setting of the study, describing features such as personal experiences, professional beliefs and social position (Creswell & Poth, 2018). In this thesis, these aspects of axiological assumptions are discussed in section 2.6.1 on Reflexivity (pages 71-74).

Finally, the methodology is concerned with the process of research. In qualitative research, it is characterised by an inductive process where data are built up, rather than obtaining information from theories or the researcher's perspectives. Data collection strategies are identified prior to commencement of the study, and pathways for data analysis are targeted to increasingly obtain detailed knowledge about the subject (Creswell & Poth, 2018). Details of the methodology utilised in this thesis are outlined from section 2.5 on Data Analysis (page 58).

### **2.2.2 Interpretive Frameworks**

Interpretive frameworks, rooted in philosophical assumptions, may be theories or theoretical inclinations that influence the practice of research or/and the researcher's beliefs or paradigms that they bring to the research process, as influenced by previous research experiences and discipline orientation (Creswell & Creswell, 2018). These worldview interpretive frameworks include constructivism, postpositivism,

transformative, postmodern and pragmatism. This study utilised a constructivist framework as the underpinning philosophical worldview.

### **2.2.3 Constructivism**

The Constructivism paradigm is characterized by realities which take the form of various abstract and mental constructions, which are rooted in social and experiential encounters (Guba & Lincoln, 1989). This worldview best informs qualitative research, as constructions are dynamic, changing to adapt to their present reality; they are never more or less ‘true’ in any absolute manner, but more or less advanced or informed (Guba & Lincoln, 1989). Constructivism holds that individuals seek to understand the world in which they perform their normal daily functions. Their interactions cause them to develop subjective interpretations, which are wide and varied. The researcher focuses on the complexities of these views and seeks to expound on them rather than reduce them into smaller or fewer ideas. The research focuses heavily on participants’ views, hence questions presented are intentionally broad, encouraging participants to explore meanings of situations. The interaction between the researcher and participant allows findings from the study to naturally surface as the investigation progresses (Creswell & Creswell, 2018). Social constructions are categorised into variable and personal, proposing that these constructions should only be extracted and refined through the interaction between the researcher and participants. Hermeneutical techniques are applied to interpret these constructions, with the use of a dialectical exchange to compare and contrast. Fundamentally, the aim is to identify common constructions that are more sophisticated and informed than any previous ones (Guba & Lincoln, 1989).

This philosophical underpinning applied seamlessly into this research project, especially with the focus groups. Questions were formulated in an open-ended style, resulting in participants' responses naturally developing to address different but related themes. Drawing on the participants thoughts regarding bariatric surgery necessarily required their allowance to voice their feelings and perspectives on wider social constructs that touched on lots of varied subjects such as thoughts about the NHS, the structure of the weight management Tier system, family dynamics, racism etc. These were then analysed and synthesized to provide meaning in relation to bariatric surgery.

### **2.3 Research Designs/Methodology**

As operating mechanisms, research designs or methodologies provide specific guidance in the methods chosen for a research study by seeking to identify the most appropriate information that will answer the research question. Research designs or methodologies also focus on the most effective procedures for obtaining information regarding the research question (LeCompte & Preissle, 1993). With the essence of qualitative research being in philosophy, it places emphasis on the human being and how they perceive and interpret social experiences.

The combination of the aforementioned philosophical assumptions results in an interpretive framework which provides researchers with a basic set of principles which influence resultant actions and decisions. Research designs outline the general guidelines that initially link theoretical paradigms to methods of investigation, and then to systems for data collection and analysis (Guba, 1990; Creswell & Creswell, 2018). Situating the investigator in the empirical world, a research design facilitates

their connection to specific and relevant individuals, literature and institutions (Denzin & Lincoln, 2005). Qualitative research designs include: Narrative research, Grounded Theory, Ethnography, Case Studies and Phenomenology. This MPhil research utilised the phenomenological research design for the focus groups with ethnic minority adults, and case studies for interviews with HCPs along the weight management Tier pathway.

### **2.5.1 Phenomenological Research**

Phenomenology as a paradigm was introduced in the late 19<sup>th</sup> century by the philosopher Edmund Husserl, following his dissatisfaction with the heavily positivist paradigm that was dominant at the time (Miles et al., 2013). The term “phenomenology” has its roots in the Greek word ‘phaenesthai.’ which translates into ‘to show itself’ and is therefore the study of phenomena (McConnell-Henry et al., 2009).

#### Husserlian/Transcendental Phenomenology

Husserl’s introduction of transcendental phenomenology elevated lived human experiences within the real world, or ‘life-world’ (*Lebenswelt*), emphasizing its centrality in ultimately uncovering knowledge (Koch, 1995; McConnell-Henry et al., 2009). By highlighting the fundamental essence of consciousness, he sought to re-examine experiences that were taken for granted, and uncover human experiences through these realities (Koch, 1995). Husserlian phenomenology embraces Cartesian duality, where the body is perceived as being the mind’s vessel, within which symbolic representation occurs. Transcendental phenomenology assumes that the external world penetrates into the consciousness and become internalised through cognitive

processes. As allegorical images of the world are contrived in the mind, a logical presentation of mental content can be demonstrated (Benner & Wrubel, 1989).

### Heideggerian/Hermeneutical Phenomenology

Martin Heidegger was a student of Husserl, who, though intrigued with the subject of phenomenology, disagreed with Husserl's approach. He coined the concept of hermeneutical phenomenology, which focused on understanding the meaning of 'being', and transitioning from description to interpretation (Mulhall, 1993). In contrast to Husserl's notion of Cartesian duality, Heidegger created the concept of *Dasein*; this focuses on understanding human existence through being. As such, the individual experiences of being are subject to their context and environment, but their interpretation of what being means, is always present (Johnson, 2000). Gelven (1989) further describes *Dasein* as the essence that causes human beings to ponder on their own existence, and what it means as an individual to be in the world; a sense of *Being-in-the-world*. *Dasein* is dynamic and ever-changing, hence cannot be empirically measured (Stumpf, 1994).

Heidegger fervently repudiated bracketing, arguing for the legitimacy of the researcher's involvement in the investigation. The use of bracketing in transcendental phenomenology resulted in an overall description of an individual's experiences but was void of any real interpretation of their meanings (McConnell-Henry et al., 2009). Heidegger posited that the existence of background knowledge on the investigative subject facilitated the researcher's ability to not only ask questions that were pertinent to the phenomenon under investigation, but also adequately interpret the data. He argued that it was impossible to isolate and eliminate the researcher's judgement or

influence during interpretative research. He further asserted that the researcher is *Being-in-the-world* of the participant as they interact, during which the researcher inexorably forms his or her own opinions.

*Being-in-the-world* inevitably causes individuals to encounter numerous varied experiences, which in turn informs their realities (McConnell-Henry et al., 2009). Hermeneutical phenomenology follows a back-and-forth process of data analysis, where questioning produces text which is then re-examined to find meaning. With an ever-expanding pool of ideas of what the text might mean, a hermeneutical circle is formed. This has infinite possibilities, with the text potentially meaning something new each time it is re-explored (Koch, 1995). Mulhall (2005) posits that the concept of Dasein is well illustrated in the hermeneutical circle.

In conclusion, transcendental phenomenology employs description as a vehicle to reveal absolute truth, where hermeneutical phenomenology in contrast seeks to interpret text and uncover phenomena (McConnell-Henry, 2009). Hermeneutical phenomenology was employed in this MPhil research to examine the issues related to the uptake of bariatric surgery amongst ethnic minority adults in the UK because of two main features: firstly, it is most appropriate to use a hermeneutical circle approach to explore and re-analyse text obtained from participants so as to identify common constructions. Secondly, a literature review has already been carried out, providing the researcher with background information and prior apprehensions of the situation and phenomenon under investigation. McConnell-Henry (2009) discourages the use of transcendental phenomenology where a literature review has been performed.

### **2.5.2 Case Study Research**

Case study research is defined as the study of a case(s) within a real-life, contemporary context or environment. The case may be a tangible entity such as an individual, partnership, small group or organization, or could be more abstract such as a relationship, community, decision process or project (Creswell & Poth, 2018). Case study research has been categorized by some as a methodology or strategy of inquiry (Denzin & Lincoln, 2005; Bartlett & Vavrus, 2017). Others refute this description as a methodology, describing case study research instead as a chosen study subject with cases being within bounded systems, confined to place and time (Punch, 2005; Stake, 2006). In this study, case study research was utilized as the methodology for studying the experiences of HCPs along the weight management Tier pathway with ethnic minorities.

As a methodology, case study research may be an entity of study as well as the outcome of the inquiry. A defined and described real-life, contemporaneous case(s) is investigated over a given time period (bound to time and context) using multiple detailed and in-depth sources of information for data collection such as interviews, observations, reports and audio-visual material, with case descriptions and subsequently case themes obtained (Creswell & Poth, 2018). The cases in this study were the interactions as described by three HCPs (two bariatric dieticians and a General Practitioner) who have experience with engaging with ethnic minority adults in regard to weight management and bariatric surgery. The study was bound to the time frame of the data collection period, which was approximately one year. Data were collected using in-depth interviews conducted within the HCPs' working environments.



Different proponents of case study research have described a wide variety of typologies or approaches to case studies, with authors such as Gerring (2007) identifying up to nine. Categories are created based on distinctions such as whether the case study is illustrative or theory-centred; whether focus is on the subject (case itself) or the object (underpinning theoretical framework); what the analytical focus and/or intent of the bounded case is - such as whether the case relates to the study of an activity or entire program, an individual or group; or whether the case study utilizes a comparative or non-comparative approach (Tight, 2017).

In seeking the opinions of HCPs along the weight management Tier system regarding their experiences with ethnic minority patients, various typologies were incorporated. Utilizing multiple or collective cases, focus is placed on a single issue (ethnic minority adults and weight management), with several cases to illustrate the subject. The cases are also comparative (comparing the HCPs interactions among each other), exploratory and descriptive (exploring HCPs experiences with this demographic and the weight management pathway, and their descriptions of the same) (Stake, 2006; Tight, 2017).

#### **2.4 Ethical Approval**

Full ethical approval for the conducting of focus groups within the community was granted by the STEM Ethical Review Committee at the University of Birmingham (Study Number ERN\_ 16-0521).

Ethical approval for the interviews with healthcare professionals was obtained from the Health Research Authority (HRA) West Midlands – Black Country Research

Ethics Committee (REC reference 17/WM/0429; Protocol Number RG\_16-070; IRAS project ID: 206598).

## **2.5 Data Analysis**

The qualitative researcher is crucially tasked with providing a framework which facilitates an accurate and thorough world view of the respondent. Data analysis in qualitative research involves sequential processes commencing with data organization, subsequent coding and categorizing into themes. This allows representation of data and ultimately, its interpretation (Creswell & Creswell, 2018).

### **2.5.1 Cross-Case Analysis**

The analysis of data from multiple cases begins from a *within-case analysis*, which aims to provide an in-depth description of each case and themes within the same.

Different techniques have been suggested to cross-case analysis, with case-oriented research providing the best fit for this study. Focusing on *quintain*, which Stake (2006) describes as the central point in the chosen set of cases, the critical characteristic of this process is in identifying commonalities across the cases.

The researcher employs thematic analysis to identify and describe emergent themes, with the goal being to demonstrate that outcomes in these cases are similar enough to be identified as instances of the same thing (Khan & VanWynsberghe, 2008).

Following this, interpretations about the quintain are made, whether meaning is derived from learning about the quintain or an unusual situation regarding it.

Ultimately, cross-case analysis facilitates a deeper understanding of the quintain (Khan & VanWynsberghe, 2008). The process of arriving at emergent themes is described in detail below.

### **2.5.2 Thematic Analysis**

This MPhil research project utilized thematic analysis to analyse data obtained from the focus groups conducted with community-dwelling ethnic minority adults, and in the cross-case analysis of the interviews conducted with HCPs along the weight management Tier pathway. Thematic analysis has been described from differing perspectives. Vaismoradi et al., (2013) argue that the general lack of a definite definition for thematic analysis results in the subsequent issue of categorizing. Authors such as Holloway & Todres (2005) introduce thematic analysis as being a part of phenomenology; whilst others have interwoven it with a categorically different analytic approach, resulting in ‘thematic content analysis’ (Green & Thorogood, 2004). Others still have omitted to identify it altogether even when they have followed its principles, describing their analytic method as simply identifying recurring themes using qualitative analysis (Braun & Clarke, 2006). Viewing it from a double-pronged angle, thematic analysis has been defined as a qualitative descriptive method which equips researchers with the necessary fundamental skills to administer numerous other forms of qualitative analysis, as well as a stand-alone method which facilitates the identification, analysis and illustration of themes within data (Braun & Clarke, 2006; Vaismoradi et al., 2013). Braun & Clarke (2019), who further developed their original work on thematic analysis published in 2006, advocate for the use of reflexive thematic analysis. Here, the researcher combines theoretical assumptions with philosophical sensibility to reflectively and thoughtfully engage with their data and the analytical process in order to generate resultant themes, with emphasis on the process being recursive and deeply reflective. This contrasts with the theoretical flexibility embraced in thematic analysis, and their earlier submission that

themes passively emerge from the data, waiting to be identified and retrieved by the researcher (Braun & Clarke, 2006).

### Breaking down themes

A theme highlights important information within the data based on the research question and seeks to capture any similarities in responses or meaning within the data set. It is ultimately the researcher's prerogative as to what should constitute as themes within their data set, with a recommendation that researchers maintain flexibility in the determination of themes (Braun & Clarke, 2006). In reflexive thematic analysis, Braun & Clark (2020) emphasise the central role of the researcher in the generation of themes, arguing that these cannot exist separately from the researcher who bring to the process their training, experience, skills and research values.

The prevalence of certain ideas within data does not necessarily characterize it as a theme; rather, focus should be maintained on how well it captures something of significance regarding the research question. Braun & Clarke (2006) assert that the type of analysis in regard to the data set should be established beforehand, and recommend this method when researching subjects with a dearth of information or working with respondents whose views on the study subject are unknown.

Braun & Clarke (2019) outline different orientations to coding and theme development within reflexive thematic analysis. In the inductive approach, code and theme generation is guided by the content of the data, whereas in the deductive approach, code and theme development is determined by existing ideas or concepts. In the semantic approach, the explicit content of the data is reflected in the code and theme generation, whereas in the latent approach, the assumptions and concepts

underpinning the data are reflected in the codes and themes developed. The realist or essentialist approach reports the presumed reality captured in the data, whilst the constructionist approach focuses on examining how a particular reality is constructed by the data. It was determined that the most appropriate approaches to this MPhil research study were a combination of inductive – due to the depth of data gathered from the focus groups and interviews; semantic – as the explicit information obtained from the focus groups and interviews is critical in addressing the research questions; and constructionist – to explore and understand the realities constructed by participants in relation to the research questions.

### **2.5.3 Thematic Analytical Process**

The thematic analytical process is not entirely unique but has some overlap with other qualitative research analytical methods. Braun & Clarke (2019) propose following a definitive approach to carrying out reflexive thematic analysis:

#### **Phase 1: Making oneself familiar with the data**

The importance of immersing oneself in the data so as to be fully cognizant with it cannot be over-emphasized. The researcher, using both field notes obtained after the focus groups and participant transcripts, achieved immersion by actively reading and re-reading the data, to recognize patterns or repeated themes. Verbal data obtained from interviews and focus groups required transcription, which was all accomplished by the researcher and subsequently provided an ideal opportunity for data familiarization. Though no prescribed method is given when producing a transcript in thematic analysis, the common consensus asserts that at minimum, a thorough, rigorous and accurate transfer is carried out, capturing verbal accounts verbatim as

well as nonverbal utterances such as coughs, laughter, sighs, etc (Braun & Clarke, 2006). All of these were captured in the researcher's transcripts.

#### Phase 2: Creating initial codes

This phase is characterized by the initial coding of the common patterns that were identified during phase one. Codes capture aspects of the data that are of specific interest to the researcher and have the potential to be examined meaningfully so that they shed light on the phenomenon in question. Themes differ from codes in that the former are more generalized as one seeks to organize the data into relevant groups; whereas the latter become more specific to facilitate interpretive analysis, in relation to the aspects of the phenomenon being examined. Coding is often dictated by the nature of the themes; whether they are more 'data-driven' or 'theory-driven'. Data-driven codes are completely informed by the data, whereas theory-driven codes are guided by pre-existing questions the researcher may use to derive the codes.

As advised by Braun & Clarke (2006), the researcher was intentional about coding for as many potential themes as possible to allow for the generation of unexpected information. The researcher avoided the conversion of questions used during interviews and focus groups into themes, as this has been cited as resulting in a complete lack of analysis in process of identifying themes (Braun & Clarke, 2006). In addition, the researcher was careful to ensure that the context within which the extract was taken was maintained. As a result, codes were exclusively established from the data during the analytical process with a total of 76 codes identified from the focus groups, and 37 from the interviews. All codes were determined by identifying issues

that stood out as being potentially related to the research question, as well as those that appeared unexpected.

### Phase 3: Generating initial themes

Analysis at this phase was refocused to the more general level of themes and involved slotting identified codes into potential and relevant thematic categories. As recommended by Creswell & Creswell (2018), the researcher determined how the codes related to each other, merging those that were variants of the same theme to form an overarching theme. Sub-themes were created to provide for more clarity in the categorization of codes. This phase was concluded by the successful assigning of all codes into candidate themes and sub-themes, resulting in 16 and 8 sub-themes for the focus groups and interviews respectively.

### Phase 4: Evaluating/reviewing themes

This phase focuses on the clarification of the candidate themes and their narrowing down to ensure that only those that have sufficient supporting data are included (Braun & Clarke, 2006).

In this process of refinement, the researcher examined the extracted data, determining their coherence to the candidate themes under which they were categorized in order to establish meaningful patterns. Where supporting data was patchy or underwhelming, sub-themes were either merged with others or omitted altogether. Moreover, the researcher sought to establish the validity of identified themes in reference to the data as well as examine how accurately the attained thematic map captured the meanings manifest in the data set as a whole as advised by Creswell & Poth (2018). This was

accomplished by ensuring that each theme had sufficiently supporting data from the set, as the creation of themes had occurred inductively.

#### Phase 5: Describing and naming

Braun & Clarke (2006) describe this phase as 'refine and define'. The researcher narrowed down the candidate themes into main themes that were presented for analysis.

Analysis involved exploring the essence of these themes, their underpinning assumptions and implications, and the aspects of data they capture within the data set. Each theme was individually analysed, establishing what it essentially captured from the data and its relation to the research question. Themes were unique to the specific aspect of data they captured but ultimately related to one another as they addressed the research question. The researcher incorporated the 'constant comparative method' as advocated by Boeije (2002) which systematically compared different respondents' views in order to filter and purify each theme.

The codes identified from the focus groups were compressed into a total of 10 sub-themes, and further categorized into 3 main themes. The themes captured the main issues extracted from the data, and were classified into: Personal factors, Socio-cultural factors and Healthcare factors. From the interviews, 6 sub-themes emerged from the codes which were then classified into 3 main themes: System structural factors, Social factors and Governance factors.

An audit trail is crucial to establish the confirmability of a study. Lincoln & Guba (1985) argue for the importance of an audit trail in qualitative research, to allow a



second party who familiarizes themselves with the study, its methodology, findings and outcomes, to audit the researcher’s decisions and analytical processes to ultimately confirm the study findings. The confirmability involves ascertaining that findings obtained from participants reflect their authenticity rather than the researcher’s preconceptions and biases. The table below provides an example of the coding process. The progression from codes to sub-themes and then into main themes is captured, with samples from participants provided to justify these.

<i>Main theme</i>	<i>Sub-theme</i>	<i>Basic code</i>	<i>Sample from text</i>
<i>Personal Factors (Focus Groups)</i>	Personal responsibility regarding weight management	Individual responsibility for dietary choices in the prevention of obesity	<p><i>...but you have to, you have to be always...mindful of what goes in, in your mouth</i></p> <p><b>African Caribbean Female, MD – Focus Group 3</b></p> <p><i>I mean, how many buffets now is open in this country? Takeaways? Chip shops?... but I mean if you’re eating that much, how you gonna lose the weight? Never mind whatever you do...</i></p> <p><b>Pakistani Male, MD2 – Focus Group 2</b></p>
		Role of exercise recognised as being	<p><i>I never ever been in my life to the gym, and never done any exercise, but when I done the ten weeks, I joined the gym, I’m paying now, I’m going everyday now</i></p> <p><b>Pakistani Male, AM – Focus Group 2</b></p>

	Attitudes towards exercise	important to health and wellbeing	<p><i>...I went and it was a 12-week course, um, to the local gym, which I did, and I loved it! I'd lost only about half a pound, half a stone, in that 12 weeks, but, I felt I could run up the stairs, you know, and um, I loved it</i></p> <p><b>African Caribbean Female, IH – Focus Group 3</b></p>
<p><i>System Structural Factors (Interviews)</i></p>	Barriers within the weight management Tier system	Absence of seamless flow across the Tiers	<p><i>Because the way the tiered system is supposed to work is that there is that people enter whichever tier of the system is right for them. But they're supposed to be free flow between all the tiers</i></p> <p><b>JC – Bariatric dietician</b></p> <p><i>The whole [system], the Tier 3, Tier 2 needs revising and reviewing and set up afresh</i></p> <p><b>GY – Bariatric dietician</b></p>
	Inefficiency and ineffectiveness of the weight management Tier system	Ineffective structural set-up for individuals with severe obesity	<p><i>...but that being a Tier 2 service, if you've got severe obesity - the patients we're talking about - a Tier 2 service is never going to be enough for you. So the problem with that to me is that it treats everybody from a BMI 25 up upwards the same and they're not - to me people with severe obesity</i></p>

**Table 4:** Table showing progression from codes to sub-themes then to main themes, with excerpts from participants' texts

#### Phase 6: Report writing

This phase is initiated when the final main themes have been determined, and the final analysis and write up is carried out. The aim of this phase is to present the narrative behind the data in a manner that attests to the validity of the analysis. Adequate thematic evidence must be provided in the write-up through the use of data extracts, which illustrate the prevalence of a theme. Ultimately, the analytic narrative must transition beyond being purely descriptive; it must assert the case for the research study (Braun & Clarke, 2006).

The comprehensive analysis and discussions of the themes are documented in Chapters 3 and 4 of this thesis, and the implications for policy and practice as informed by the analysis of these themes examined in Chapter 5.

## **2.6 Validity & Reliability**

Validity in quantitative research is determined by the extent to which the experiment and the methods used measure what they are intended to measure (Linacre, 2000; Heale & Twycross, 2015). Creswell & Creswell (2018) outline internal validity as being guaranteed in various ways:

1. Selecting participants at random reduces the likelihood of selecting subjects with similar characteristics into the same group

2. To reduce any communication between the experimental and control group, the researcher could separate them
3. A large sample group could be recruited so as to offset participants who will inevitably drop out during the experiment
4. To prevent participants from becoming familiar with interventions or outcome measures, a longer time interval could be incorporated between any subsequent follow up interventions.

Creswell & Creswell (2018) further contend that external validity is warranted by not generalizing study outcomes, but disclaiming the unique characteristics of study participants, and carrying out the experiment with participants with different characteristics. In the same measure, experiments ought to be carried out in different contextual settings from the initial one, as well as over a different time period. These steps support the validation that outcomes of the experiment are not distinctive to a particular setting, subject characteristic or time frame.

Reliability is established when the method or test produces the same or similar results consistently, when all factors are held constant (Linacre, 2000; Heale & Twycross, 2015). Reliability is comprised of three main attributes: 1) Homogeneity or internal consistency, which is the ability of all the measures on a scale to evaluate one concept; 2) Stability, which is the ability of a tool to repeatedly produce consistent findings; and 3) Equivalence, which the capacity of the tool to produce consistent results from multiple users, or surrogate forms of the same tool (Heale & Twycross, 2015).

Critics of qualitative research question its validity and reliability, citing the lack of scientific rigour, with an absence of exactitude for methods chosen, a lack of pellucidity in the processes of analysis and the researcher's subjectivity in the data findings (Rolfe, 2006; Noble & Smith, 2015). Noble & Smith (2015) suggest alternative terminologies to capture validity and reliability within qualitative research. In place of validity, they propose *truth value*; there is a recognition of the existence of multiple realities. Through reflexivity, the researcher articulates any personal experience and/or viewpoint that may lead to methodological bias. *Consistency* is suggested in place of reliability. The researcher is concise and transparent about the methods incorporated and maintains the same track. Ultimately, an independent researcher should be able to arrive at or similar or comparable conclusions.

As such, reliability and validity are achieved in qualitative research by the researcher employing specific procedures to ascertain the accuracy of the findings. Creswell & Creswell (2018) outline eight primary strategies to ensure validity in qualitative research:

1. Triangulating a variety of data sources to build a justification of themes.  
Themes can also be identified from participants' perspectives, which contributes to validity. Chapter 5 of this thesis discusses the various themes identified from the focus groups and interviews, using multiple data sources to justify the same.
2. The use of member checking. Follow up interviews or focus groups are arranged with participants to present back the final report, specific themes, or major findings to examine if these accurately capture their perspectives.

Owing to a combination of factors, follow up interviews and interviews could not be feasibly carried out in this study.

3. The use of thick description to communicate results. Validity is enhanced in qualitative research when the researcher provides numerous perspectives about a theme or delves into detailed descriptions about a setting. This allows for shared experience, allowing the reader to become immersed into the situation. This has been utilised in the analytical and discussion chapters of the thesis.
4. Qualitative researchers must clearly define the bias they bring to their study. This raises the significance of reflexivity with qualitative research. As the researcher is the primary tool for data collection, they must be intentional about identifying factors that influence them as individuals, such as gender, socioeconomic status (SES), culture and history. These would inevitably feed into their interpretation of the data. As such, reflexivity requires the researcher to remark on their relationship with the research problem (which could be any of the aforementioned factors), hence allowing the reader to understand the connection between the former and the latter. Similarly, the researcher ought to be explicit about these factors, as they may potentially influence the interpretation of the data. Reflexivity in relation to this research project has been rendered in the successive section below.
5. Describe any contradictory information that may be contrary to the themes. As perspectives will necessarily diverge, discussing those that are contrary to the theme adds credibility to an account. As the researcher outlines the evidence that builds a theme, they should also present the divergent information around

that theme. Again, these have been captured and discussed in all the successive chapters.

6. Spending extended time periods in the field is strongly recommended. This naturally allows the researcher to gain an in-depth understanding of the subject phenomenon and enabling them to communicate detail about the setting and participants. Owing to the research being an academic project at MPhil level, the capacity and resources were unavailable to permit extended time-periods being spent with the research population. However, the focus groups and interviews all took place in their respective communities.
7. Using peer debriefing to augment the accuracy of the narrative. This involves a peer, who asks questions about the study to establish whether the account resonates with an audience outside the study. Due to various constraints, this was not explicitly achieved for this study.
8. The use of an external auditor to analyse the entire project. The external auditor is a third party who is unfamiliar with the study, able to provide an objective evaluation throughout the study process and at its conclusion. The overall validity of the study is enhanced through the process of having an independent examiner analysing all aspects of the project. As the research is at MPhil level, the external auditors will constitute the examiners who will analyse the research.

### **2.6.1 Reflexivity**

Numerous researchers highlight the importance of reflexivity within qualitative research (Weis & Fine, 2000; Creswell & Poth, 2018). As such, I shall provide a

background of myself as a researcher. This is the only section of the thesis that is written in first person narrative.

My interest in weight loss and its particular relationship to minority ethnic groups lies personally and professionally. I am a female of African descent, having been born and raised in Kenya. Food is a complex phenomenon within the African culture as it portrays much about a family/community. Generosity and hospitality are closely tied to food, such that even those of significantly low socio-economic status will typically go out of their way – even to their own denial, to feed a guest. As such, restraint is often difficult where food is easily available, with this being a major contributor to obesity as a problem within my extended family.

Academically, I hold a BSc (Hons) in Adult Nursing and an MSc in Clinical and Public Health Nutrition. Professionally, I worked as a research nurse with the Genetics of Obesity Study (GOOS) group at the University of Cambridge prior to the commencement of this study. The aim of the study group was to identify genetic causes for obesity, typically commencing in childhood. It was fascinating to interact with patients who were often experiencing feelings of hunger despite being obese and found it extremely difficult to lose weight through conventional methods. My tenure at this position exposed me to obesity in a way I hadn't previously experienced. These two perspectives coupled together resulted in my interest in this research project.

As a researcher in this project, I felt that my strength was often my limitation. In as much as I identified with many of the perspectives that were shared, it was paramount that I remained astute to them to be able to see things from a different angle. I felt that it sometimes required allowing the participants to veer somewhat off topic so as to



express their frustrations or difficulties in regard to the system. Acknowledging the similarities in opinions about food, especially from a cultural perspective, allowed my ability to separate my experiences from theirs. Furthermore, it allowed me to remain objective when my thoughts were invited on such matters.

I felt that being a Black woman generally made the participants more accepting of myself as a researcher, and hence more obliging to share thoughts and perspectives. I felt the same even with the South Asian groups; that there was a feeling of belonging and camaraderie as a similar group of people. This was certainly a strength, with participants referring to 'we' when talking of a subject matter that alluded to minority ethnic groups and including myself in the category. In particular, the Indian all-male group discussed the racism that they had experienced when they first migrated to the UK, which I sensed they felt able to do freely due to my background. In addition, coming from a deeply cultural society facilitated my identification with many of the issues that were discussed, especially where comparisons were made between 'home' and the UK. There was a clear sense of solidarity especially with the African and Indian participants' when, following their inquiry, I disclosed my nationality.

I was however aware of the potential to become personally immersed in the discussions, hence clouding my judgement during the focus groups. As such, carrying this awareness conscientiously into the focus groups allowed me to dissociate my personal attachments, and remain as subjective as I could be.

However, in some cases, some of the participants had limited spoken English literacy, and hence found it difficult to express themselves and limited their participation in the discussion. They did acknowledge an understanding of the general topic of

discussion, and I invited them to let me know if they required something to be repeated or explained. I was careful to conform to any cultural requirements that I was made aware of prior to the focus groups; for example, when invited to the Sikh Gurdwara to conduct the focus group with the Indian men, I was advised of the appropriate dress code which I adhered to.

## **2.7 Conclusion**

This MPhil research project, being wholly qualitative, employed phenomenology as the research approach. It further utilised thematic analysis to examine data collected from focus groups with community-dwelling ethnic minority adults, and framework analysis for interview data obtained from healthcare professionals. The researcher integrated and embraced the strategies above to ensure validity and reliability of the findings.

## **CHAPTER 3 – EMPIRICAL RESULTS – FOCUS GROUPS WITH ADULTS**

### **3.1 Introduction**

There is presently no published literature examining the attitudes, perceptions and experiences of ethnic minorities regarding the weight management Tier pathway and bariatric surgery in the UK. Several published data exist that point to the reduced likelihood of the uptake of bariatric surgery amongst ethnic minorities even though they are disproportionately affected by obesity (Mainous et al., 2013; Stanford et al., 2015). However, few examine the reasons for this phenomenon (Lynch et al., 2007; Moore et al., 2016). Moreover, none of these studies were conducted in the UK, with the majority carried out in the USA.

Lynch et al's., (2007) study analysed the perspectives of obese African American women on weight loss and bariatric surgery. They identified issues including lack of access to resources; fears about surgery and its effects, with feelings of it being too extreme; and identification with larger body sizes. Similarly, Moore et al., (2016) examined the attitudes and perceptions of obese African American men regarding bariatric surgery, finding that participants did not have discussions with their HCPs about weight, weight loss or weight loss surgery, and associated surgery with vanity. Ofori et al., (2020) qualitatively explored the facilitators and challenges of racially diverse patients undertaking bariatric surgery and identified that one of the key contributors to this demographic completing the process of weight loss surgery was feeling fully supported by their primary care provider.

The absence of UK-based literature examining this issue justifies the necessity for the present study. Whereas the results from studies identified in previous chapters are

useful in shedding some light into this phenomenon, the differences in context (such as healthcare structure, cultural differences) and ethnicities may not be consistent with the British experience. The aim of this chapter is to present the results of focus groups conducted with ethnic minority adults at risk for obesity to explore their thoughts, perceptions and experiences regarding weight loss, the weight management Tier pathway, and bariatric surgery. The findings reported in this chapter shed light on some of the reasons behind the underrepresentation of ethnic minorities in the weight management Tier pathways.

### **3.2 Methods**

Purposeful sampling was utilised to intentionally identify participants that would provide insight on the research phenomenon. Patton (2002) postulated various strategies for purposeful sampling, with criterion sampling providing the best fit for this project; cases for investigation are determined following the identification for specific criteria. Initial criteria for focus group participants included:

- Aged 18 to 65 years.
- Self-identification as being South Asian, including Indian, Bangladeshi, Pakistani; OR African/African-Caribbean.
- Having a self-reported BMI value of at least 27 kg/m<sup>2</sup> (if they are South Asian), or at least 30 kg/m<sup>2</sup> (if they are African/African-Caribbean). The researcher will collect self-reported height and weight (to calculate BMI) from each potential participant during a screening phone call to determine eligibility.
- Self-identification as being fluent in English. There are not sufficient funds to translate recruitment materials into multiple languages, or to pay

interpreters to assist with recruitment, conducting of focus groups, and analysing qualitative data. As such, only those with fluency in English are eligible to participate.

Recruitment from these populations was found to be very difficult from the outset, with those meeting these stipulated criteria even harder to identify and enlist. As a result, an ethical amendment was then sought to modify the criteria so as to ease the recruitment process. It was determined that seeking the thoughts and opinions of ethnic minority individuals regarding bariatric surgery regardless of their weight and age was likely to provide insight on the subject matter. As such, ethical approval was granted for this amendment to allow participation of adults older than 65 years, as well as include anyone from the target population irrespective of BMI.

Recruitment was conducted via flyers (**Appendix A**) and through word of mouth. Various contacts were established, such as with the Pakistani community leader and personnel from the Centre for Black Minority Ethnic Health. The recruitment poster and information sheet (**Appendix B**) were disseminated to these contacts, who then recruited their respective community members for participation in the focus groups. Focus groups sessions commenced with completion of the consent forms (**Appendix C**) and demographic questionnaires (**Appendix D**) and were then conducted in accordance with the approved interview schedule, whose design was based on the aim of the thesis and modified as appropriate to the discussion (**Appendix E**). The focus groups were 30-50 minutes in duration and were recorded using a digital recorder. They were conducted at participants' respective community centres, with the Indian focus group conducted at the local Gurdwara.

Sample sizes were determined by following the common principle advocated by Kuzel (1999) and Patton (2015), stating that in qualitative research, the sample size should be adequate and varied to illuminate the aims the study. Three to ten participants have been recommended as being sufficient to reach saturation within a phenomenological study (Creswell & Poth, 2018). As such, focus groups were aimed at five to ten participant per group. One focus group per ethnic group was conducted due to aforementioned challenges with recruitment. A pilot focus group was also not conducted for the same reason.

### 3.3 Results

A total of 6 focus groups were conducted. Table 4 below outlines the constitution of the groups:

<i>Ethnicity of Group</i>	<i>Number of Men</i>	<i>Number of Women</i>
<i>Pakistani</i>	7	-
<i>Pakistani</i>	-	6
<i>African-Caribbean</i>	-	7
<i>African</i>	-	7
<i>Bangladeshi</i>	-	6
<i>Indian</i>	9	-

**Table 5:** Constitution of focus groups conducted

The table below provides the demographic characteristics of 36 of the 42 participants who participated in the focus groups. Six demographic questionnaires were incomplete and did not provide sufficient information.

Participant Pseudonym	Focus Group	Age	Gender	Country of Birth	No of years living in the UK	Ethnic Origin	Faith/ Religion
MB	1	63	F	Pakistan	46	Pakistani	Muslim
GB	1	59	F	Pakistan	25	Pakistani	Muslim
SA	1	63	F	Pakistan	42	Pakistani	Muslim
KS	1	84	F	Pakistan	>20	Pakistani	Muslim
MD	2	82	M	Pakistan	>50	Pakistani	Muslim
MD2	2	66	M	Pakistan	47	Pakistani	Muslim
ML	2	78	M	Pakistan	52	Pakistani	Muslim
AM	2	74	M	Pakistan	58	Pakistani	Muslim
BGB	3	56	F	Jamaica	32	African-Caribbean	Christian
MP	3	63	F	Jamaica	45	African-Caribbean	Christian
IH	3	64	F	Jamaica	46	African-Caribbean	Christian
PC	3	64	F	Jamaica	>50	African-Caribbean	Christian
FG	3	73	F	Montserrat	>50	African-Caribbean	Christian
MD	3	61	F	Guyana	48	African-Caribbean	Christian
VG	3	63	F	Barbados	62	African-Caribbean	Christian
SM	4	40	F	Somalia	15	African	Muslim
MM	4	49	F	Somalia	5	African	Muslim
WY	4	28	F	Holland	15	African	Muslim
SQ	4	40	F	Somalia	16	African	Muslim
AM	4	34	F	Somalia	18	African	Muslim
FA	4	33	F	Somalia	12	African	Muslim
PZ	4	60	F	Zimbabwe	16	African	Christian
SR	5	28	F	Bangladesh	2	Bangladeshi	Muslim
HR	5	30	F	Bangladesh	1	Bangladeshi	Muslim
TB	5	33	F	Bangladesh	2	Bangladeshi	Muslim
KU	5	35	F	Bangladesh	1	Bangladeshi	Muslim
SA	5	34	F	Bangladesh	2	Bangladeshi	Muslim
SS	6	75	M	India	50	Indian	Sikh
HP	6	68	M	India	49	Indian	Hindu
NG	6	72	M	India	51	Indian	Hindu
NS	6	78	M	India	20	Indian	Sikh
JB	6	78	M	India	53	Indian	Sikh
SB	6	57	M	India	39	Indian	Sikh
SS2	6	62	M	India	54	Indian	Sikh
GK	6	42	M	UK		Indian	Sikh
SS3	6	60	M	India	37	Indian	Sikh

**Table 6:** Summarised demographics of thirty six out of forty-two participants

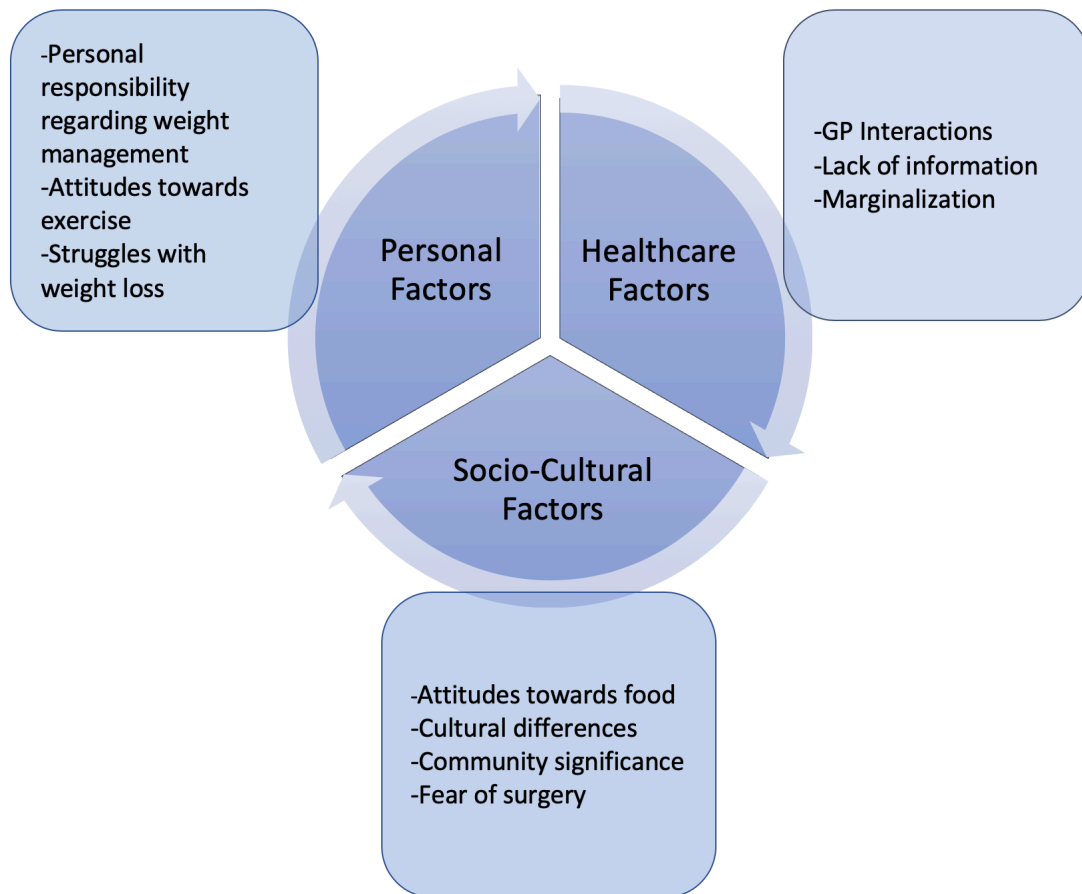
The Pakistani male group consisted of individuals who were mainly able to express themselves in English, although one or two members had a little difficulty. The female Pakistani group, though had limited English proficiency, had sufficient

command of the language to provide informed consent and agree participation. However, the extent of their expression during the discussions was limited. Both male and female members of this community had migrated to the UK in the 1960s and 1970s. The African-Caribbean group consisted of mainly Jamaican women who had migrated with their families in the 1960s/1970s. Language was not a barrier, and they were able to express themselves succinctly. The African group consisted of women predominantly from the Somali community, one of whom was not fully fluent in English, but was able to express herself sufficiently. Of note, three had migrated to the UK from Holland over the previous few years, having originally migrated from Somalia. The Bangladeshi group consisted of individuals with a varied command of English. An interpreter was available for this group, as there were two participants who were unable to fully express themselves in English. As such, aspects of the discussion that required them to give detailed responses were expressed in oral Sylheti, and subsequently translated into English by the interpreter. An interesting observation was that all but one of the participants from the Bangladeshi group had migrated to the UK from Italy over the past few years, having initially migrated from Bangladesh.



### 3.3.1 Themes Identified

The main themes and sub-themes identified from the focus groups conducted are captured in diagram 5 below:



**Figure 2:** Main themes and sub-themes identified from six focus groups with ethnic minority communities.

### 3.3.2 Personal Factors

The theme of personal factors is divided into the sub-themes of: personal responsibility regarding weight management, attitudes towards exercise and struggles with weight loss.

### Personal responsibility regarding weight management

Personal responsibility in regard to weight management was cited as being important across the different focus groups. Participants expressed that each individual had the obligation to ensure that they were making good food choices and choosing a healthy lifestyle. There was also a good understanding that diet took priority in maintaining a healthy weight, regardless of the quantity of exercise engaged in:

*“I mean the main thing is here, they [talk] about the weight loss and all that, the surgery; why they never do it the first step; I mean, how many buffets now is open in this country? Takeaways? Chip shops? And the government allow them; you can see five/six shops together; if they can control them, I mean I go there yesterday and I can see the people coming from the chip shop full carrier bags. I been to the [Named a local neighbourhood area] all the restaurants full; but I mean if you’re eating that much, how you gonna lose the weight? Never mind whatever you do...”*

(Pakistani Male, MD2 – Focus Group 2)

Participants appeared to be quite clear they were ultimately accountable for the choices they made in relation to food. They seemed to emphasize the need to be conscientious about what one chose to eat, due to its potential impact:

*“...He goes, you can go to the dietitian, that's fine, but um, dietician will just tell you, like everyday, you know, what you need to be eating and you know, for your height and stuff like that. There's not much they can do, I think it's, I think what the word I'm looking for is um, you've got to control it yourself. No one else is going to help you...”*

(Bangladeshi Female, HR – Focus Group 5)

### Attitudes towards exercise

Participants across all 6 focus groups had a good appreciation of the role of exercise towards losing and maintaining a healthy weight and were generally willing to participate in it, especially those that enjoyed once they commenced it:

*“So I went and it was a 12-week course, the, the GP signs a form for you to go for 12 weeks, um, to the local gym, which I did, and I loved it!”*

(African-Caribbean Female, BGB – Focus Group 3).

*“It took me about 6 months to get there because I kept on making excuses as to why I couldn’t go; but once I went, I began to enjoy it, because the aquarobics, I felt that because my knees are not very good, I couldn’t do the exercises. But I just tried, and it was really good!”*

(African-Caribbean Female, VG – Focus Group 3)

However, the Pakistani male group expressed the absence of older Asians generally in gyms. Interestingly, the exemptions to this were Indians, whom the Pakistanis observed as being the only other Asians in the gym; and even so, they were only few:

**MD:** *I go to the, I go to the gym, honest – I never seen Asians over there.*

**I:** *Really?*

**ML:** *Maybe one or two...and that’s only the Indians. The Pakistanis never – I’m only the one in the gym. Indians there, few coming in, but other peoples...*

**AM:** *Younger generation they are...*

**ML:** *They are different (referring to the younger generation)*

(Pakistani Males: MD, ML, AM – Focus Group 2)

When a reason for this was sought, they conveyed that this was due to the charges associated with usage of the facilities. They proceeded to explain that where the fee had been eliminated, many more Pakistanis were using the amenities. For other participants, the general benefits of exercise were more valuable than the weight loss itself. This was enough impetus to remain consistent:

*“And I did it over 12 weeks and then they do all your measurements again, and...waist size had gone down, mentally I was better...um...and I’d lost only about half a pound, half a stone, in that 12 weeks, but, I felt I could run up the stairs, you know, and um, I loved it...”*

(African-Caribbean Female, MP – Focus Group 3)

In addition, other participants were able to seek out alternative methods of activity outside conventional gym-going, to ensure they remained active:

*“...I used to go the gym; and...every time that I went to the gym, and like the following day I would like crash! I would be so ill! And I couldn’t understand it! So for me, I don’t benefit from going there. The, the outdoor gym thing, that is fantastic, you know, and I try, and I go there, and do my thing, and what have you not, and I find that I’m fine! I’m not dying the next day or two in bed! You know, but there people like that, who the gym doesn’t suit them...you know, but, uh – I still try, but uh...”*

(African-Caribbean Female, PC – Focus Group 3)

*“...I go to Zumba...which is nice, I mean this morning the session was absolutely brilliant coz we, lots of Bob Marley, and, so even if you’re not doing the right moves, you’re still moving...”*

(African-Caribbean Female, MD – Focus Group 3)

### Struggles with weight loss

Participants often self-determined the need to lose weight, without this being suggested by their GPs. This was often prompted by their experience of various problems perceived to be a result of their weight:

*I: Yes. Yes. So is it your GP who said to you that you need to lose weight? Or was it you yourself who felt...*

*NS: I don’t want to see anybody; I only do myself.*

*I: But, but was it you yourself that decided you wanted to lose weight?*

*NS: Yeah, yeah*

*I: What was your reason for wanting to lose weight?*

*NS: Because it's walking difficulty. And when you got a big stomach it doesn't look nice*

(Indian Male, NS – Focus Group 6)

However, there were those that only attempted to lose weight following advice from their doctors:

*“GP told me I need to diet. I need to [walk], 2 hour everyday”*

(Bangladeshi Female, SA – Focus Group 5)

*“Some time GP said, uh, you have to, uh, lose little bit, uh, weight down; but, uh once before, uh, about two, three years before, uh, they give me, uh, some chart they said, uh, you have to lose your weight”*

(Indian Male, SS3 – Focus Group 6)

Female participants were observed to struggle more with weight loss compared to their male counterparts. It was similarly a notion amongst the ladies that men didn't typically have weight problems:

*“But is uh, is uh more, more women they're struggling their weight; but men, no – men, they're fit, but is problem is women...they, they [weight] ...growing up so quickly”*

(Bangladeshi Female, KU – Focus Group 5).

Some female participants further attributed weight gain to pregnancy and communicated difficulty with weight loss particularly after successive pregnancies. A somewhat feeling of defeatism regarding success with weight loss after pregnancy was expressed. In addition, some of the participants saw this weight gain at this stage in life as a natural and expected occurrence:

***Interpreter (For TB):** So, she put on weight with her pregnancy, she says 'first time I was pregnant I put on weight then lost a bit, then I got pregnant second time, I put on weight: then again third time I became pregnant and I carried on putting weight due to pregnancy*

(Bangladeshi Female, TB – Focus Group 5)

*“And it’s the same with me; I was as skinny as ever. And I remember my mum used to say to me – oh, when I left home – you sure you’re eating? And then obviously life changed and I got married and I started having babies... And the weight come on...And that’s how it turns out; we start off being pencil thin, and as we develop and get married and having babies and what have you, but later...”*

(African-Caribbean Female, MD – Focus Group 3)

Participants expressed the difficulties encountered in losing weight, despite efforts expended through diet and exercise, and the discouragement experienced. These difficulties were expressed by male and female participants equally:

*“And I turned up, and she looked at me, and we had a talk; and then she said to me, she put me on the scales and she said – are you 20 stone? And I’ve been walking, doing all sorts, and I’m thinking – and I’ve done all that work, and, and, and doing all this, and I’m still heavier than what I thought; coz I thought I was about 15! And she said, and you know, that, that really...and, I’m thinking – no! And I was supposed to go the, um, swimming baths again for, for free lessons, to do aquarobics and what have you; and I’m thinking, I’ve been doing all this, and whatever, and it’s not working, so... You know, so, that really deflated me, deflated me tremendously.”*

(African-Caribbean Female, BGB – Focus Group 3)

However, participants also communicated success with weight loss using interventions implemented individually or through their GP. Weight loss was

typically achieved through diet, with those able to remain consistent recording the best outcomes:

**TB:** *I am uh, morning, breakfast, I uh um, oats, uh, and with um, almond milk; uh, um, ten o'clock um, one apple, and um, lunch, um, um, one bowl of salad; and em, grill fish, grill chicken, grill beef eh, another...and eh, seven, um four o'clock, one juice, and um, um, dinner, uh – vegetable grill and vegetable boil...*

**I:** *And you've lost weight?*

**TB:** *Yeah*

**I:** *Ok...do you know how much weight you've lost?*

**TB:** *Uh...10? 10*

**I:** *Oh right! In what, in what time frame? In a year, six months...?*

**TB:** *Uh...Six, seven month*

(Bangladeshi Female, TB – Focus Group5)

**MB:** *That time I was 12 stone. They send me, um Slimming World nearly, um, 10 months; they gave a voucher for 12 weeks...*

**I:** *So the GP gave a voucher for 12 weeks for Slimming World?*

**MB:** *Yes*

**I:** *So you went to Slimming World for 10 months*

**MB:** *I lose 3 stone in 10 months*

(Pakistani Female, MB – Focus Group 1)



### 3.3.3 Socio-cultural Factors

The theme of socio-cultural factors is divided into the sub-themes of: attitudes to food, cultural differences to the host population, community significance and fear.

#### Attitudes to food

Participants were observed to struggle in relation to food choice and quality in the UK. References were made to the absence of 'organic' food in the UK, with the term 'organic' being used quite loosely. Food in the UK was generally referred to with suspicion, and the assumption of the use of chemicals in the production of food items.

This was communicated as being a barrier to healthy eating:

*MM: For me what help, what help us, the food we eating – it is more organic than here*

*I: Hang on, hang on, ladies. Let me just ask - what do you mean by organic? So that's a word that you keep using; what is organic? What's organic?*

*MM: It's nature, it's nature – it's nothing with eh, chemical things, eh; chicken it's normal*

*I: Do you think that the food here is not organic?*

*FA: It's processed, yeah*

*MM: In where we come from, eh, I have seeds, eh, eh, eh, grape seeds; I put [in] my garden, it will come out - nothing I did it; I didn't put any chemical, I didn't put anything to help to grow up*

*FA: Artificial stuff, yeah*

*MM: In Europe, you need something you put in the, um...*

*AM: To help the growth, yeah*

*MM: Some, or anything! You need some kind of chemical to produce this thing. I don't need that! Africa doesn't need that! Is everything is nature!*

*Chicken – they eat something outside, they give you eggs*

(African Females: MM, AM, FA – Focus Group 3)

Food was perceived as being fresher and healthier in their home countries in comparison, hence attributing to healthier lifestyles and wellbeing; this seemed to negate the need for information regarding healthy eating, as the food available was healthy by default:

*“They, they don't programme in healthy foods; so people are healthy – the [maize flour] is healthy, the spinach is healthy, there is [passion] fruit – is healthy! And it's nature; and it's nature! So – I don't need all that information where I come from back [home] in Africa; when in here, in here the weather is not helping me, eh, my body is more, eh, ready for this kind of weather over things; I didn't train it myself to be health, health – look healthy food, eh, look what you eating...”*

(African Female, MM – Focus Group 4).

Whereas some expressed the availability of healthier and fresher foods back 'home', others communicated an upbringing on unhealthy foods and the propensity towards choosing unhealthy foods as a community:

*“As Somali community, we don't really eat healthy; you can be a bigger size or smaller size, it doesn't matter – we do not eat healthy.”*

(African Female, WY – Focus Group 3)

*“We in Asian community now realize that food is our problem. For generations we were used to eating samosas, pakoras, parathas and all the fried food; and now we realize that fried food is not good for you; so, so we’re trying to control it that way.”*

(Indian Male, HP – Focus Group 6)

Other participants appeared to have a good understanding of the roots behind traditional diets, and the problems experienced as a result of continued consumption of these foods without the activity that was traditionally undertaken:

*“I think the reason the Sikhs come from Punjab, they were very hard working. Every culture, doesn’t matter what you do – the old days there was no machinery... They were farmers, working in the field... the food was a design for you to have your food, then you could carry on for hours and hours without eating anything – and we are eating the same food, but we’re not doing enough exercise, not enough work, because it’s machines, all IT and whatever; eh, the food hasn’t changed, the food is still the same...”*

(Indian Male, NG – Focus Group 6)

Change in dietary choices amongst other participants were attributed to their weight gain. With a fair number of participants having migrated from countries of origin/birth to Holland and Italy and then to the UK, diets were recognised to be different one country to another. This presented the difficulty in making healthy food choices in light of what was available in the UK:

**I:** *Do you eat different food compared to what you were eating in Italy?*

**HR:** *Is uh, is uhh...know here have Asian food and Italy have not; maybe is*

*the...burger, pizza...I don't know*

**I:** *So you think that the Asian food is making you put on weight?*

**HR:** *Yeah.*

(Bangladeshi Female, HR – Focus Group 3)

In addition, some participants felt that their diets were stereotyped due to their culture. They expressed a sense of frustration at the assumption that their dietary choices were always fatty:

**SA:** *You know with Asian people, the doctor said, your diet is very fatty; always when you ask something, your diet is really fatty. That's the main problem.*

**UK:** *But diets have been improved, lots of them are looking into, um, you know, other options...*

(Pakistani Females, SA, UK – Focus Group 1)

### Cultural Differences

Participants experienced various cultural struggles living in the UK compared to their 'home' countries. They expressed a nostalgic feeling when discussing the warmer weather at 'home', and the ease in being more active due to the warmer weather. Obesity was thought of as being less likely occur due to better lifestyles, and was down-played as being a problem 'back home':

**MM:** *...And where we come from, background, we don't have these things because it's hot and weather is good, food is organic; we don't have those kind of things in our country, but...*

**I:** *Do you not think that, um, that people are heavier in Somalia?*

*MM: They, they are, but they, they, they're not uh, like this, they're not like this; in here, it's cold, and if you overweight, you will have difficult. Uh, in Somalia, it's hot – so the weather will help you to be...you get it?...There are people who are fat, but they, they have good, eh, exercising, because the weather will – is hot, it's 35 and above; so you have a healthy – your body have a healthy situation. In here, it's cold...*

(African Female, MM – Focus Group 4)

Interestingly, some participants seemed to have more of an acceptance, and even expectation of larger body sizes, attributing this to their genetic makeup. There was also a greater emphasis on feeling healthy, rather than weighing a certain amount.

These factors appeared to negate the impetus for weight loss:

*“But also, on, in – when you look at it in sort of hereditary terms, coz with my family, we're all big women. You know, my, we started off – and, and I saw a picture of {name withheld} um, back then, 30 years ago, you wouldn't have thought, you'd think – that's your daughter, that was {name withheld}. And it's the same with me; I was as skinny as ever. And I remember my mum used to say to me – oh, when I left home – you sure you're eating?”*

(African-Caribbean Female, MD – Focus Group 3)

***BGB:** And then the weight, you know. I'm not a big eater – even my kids! They're saying to me now, mum, I don't understand; because you don't eat a lot. You know, maybe I eat one meal a day, like I've eat now, and that's it. You know, I might have some fruit later on or whatever, and that's how I eat. And yet, look at me! (Laughs)*

**MP:** *But, are you healthy, you feel healthy?*

**BGB:** *I do!*

(African-Caribbean Females, MP, BGB – Focus Group 3)

An interesting observation made was the cultural expectation of aging. Some participants expressed that growing older was inevitably associated with declining health; as such, procedures such as bariatric surgery seemed futile as individuals got older:

*“It is, it is lack of education I think; people take it for granted it when you grow old, you, you won’t keep the same health what you were before you didn’t have to; they take it for granted, you have to, deteriorated, and they say it is a part of life, is passing life; if you want to try to change it, what for at this age, not much life left...”*

(Pakistani Male, ML – Focus Group 2)

In addition, some participants expressed that ethnic minority individuals that had migrated to the UK from elsewhere were less likely to prioritize bariatric surgery as culturally, this would simply not be of importance to them:

*“I’m just thinking about the cultural inference of the people who would have been eligible for it; coz they would be the older...um...ethnic minorities whose come from somewhere else; and to them, that sort of image of I losing weight and so on I don’t think that’s sort of top of their minds? They’re too busy...looking after their family, and working and so and so, that’s not something they’re going to go for unless they’re dying.”*

(African-Caribbean Female, MP – Focus Group 3)

### Community Significance

The centrality of the community was reiterated repeatedly. Participants viewed the community as a strategic feature. Community centres, leaders and volunteers were often cited as sources of information and reference points. The community centres provided a location for exercises, which participants would otherwise not have engaged in; or were able to build on to their existing exercise regime by attending sessions at the centre:

*“You ask me the question why the other people never do; coz the thing is yeah, while I coming to the centre, we got a lot of peoples coming here from the {name withheld} Council and all that, and city classes; I mean, if we do the exercises here, we don’t know about exercise before, we just learn this exercise in, in the centre... We go in the {name withheld} on a Wednesday, P3 and other five of them, we do the exercise, I never done it before.”*

(Pakistani Male, LK – Focus Group 2)

Community centres were also referenced as an important facility for the dissemination of information, especially as a solution to the demand for GP time. Participants felt that these centres could be utilised even further as a space for individuals to inquire and learn about various matters without the tight time constraints presented at GP surgeries, through teaching sessions:

*“I think to get the information out, coz you can’t...and the GPs very stretched; I mean see the GP, they’ve got lots of things going on, lots of you know, their service [is] full, you know... so the GPs under pressure. So I think it’s about, really, us taking responsibility, the people in the community,*

*people who are there running groups and things to get information out to people because, you know, and sometimes you can do it in a format that people are not frightened you know; not a lot of older people go on the net, you know; just to get them to take out their phone, mobile phone's in a tissue! But I think it's just being very...making sure that information is in those groups so the groups can then filter down so there may be somewhere to go..."*

(African-Caribbean Female, FG – Focus Group 3)

Participants expressed a need for the distribution of information by members who might have first-hand experience of a particular subject matter, hence benefitting the wider community:

*"And every community will have people who understand this issue, they been through it, or they related to that...you know, whatever job they are doing; we can take advantage of that; people have problem they don't discuss it – even among ourselves; we don't sit here and talk – how can I lose weight?"*

(Indian Male, SS – Focus Group 6)

Interestingly, some participants were aware of channels available to allow their inviting subject matter specialists to visit the community centre and address the community on a specified topic. This opportunity unfortunately, did not appear to be utilised:

*I: So is there – maybe it would be an idea, to maybe have, like a health link person? So in the Gurdwara – someone who could say...*

*HP: Yeah – definitely...It is available, but people don't make use of it*



*I: Oh so it is available?*

*HP: Of course – if you contact the health department, they'll send somebody round to talk to you... They are available, but, but people don't use them – probably not aware of it; that is, that's, and then those people - some of us who know about this thing, we are quite happy that we can look after ourselves*

(Indian Male, HP - Focus Group 6)

### Fear of surgery

Participants overwhelmingly cited a general fear of surgery. Culturally, surgery and anaesthetics were thought to be dangerous, and often associated with negative outcomes that may ultimately impact daily living. There seemed to be a greater focus on the possible side effects, than the benefits of the surgery. This fear was observed to be a hindrance in choosing to have any kind of surgery done:

*“But, um, for me, a lot of the times my thoughts is that, you know, I think...umm, surgery, is, I mean, within - I don't know, within the, definitely black community, there's a big fear about anaesthetics, there's a big fear about going under surgery...”*

(African-Caribbean Female, FG – Focus Group 3)

*“...The fear! Fear is that you might get worse; or even, the way of life, what you are doing now, you may not be able to do those things, you see...”*

(Pakistani Male, MD – Focus Group 2)

*“Talking about the surgery, people are scared when you mention operation; they’re scared to have operation done...”*

(Indian Male, NS- Focus Group 6)

Surgery appeared to be generally shrouded in mystery, with some participants expressing unfounded fear when asked whether they would consider bariatric surgery if they ever met the criteria for it:

*I: So, yeah, I'd be very interested to know, is this something that you would consider – if this was presented to you and if you were told... Ok...so first of all, it's not a magic cure - but it's an option. If this was something that was presented to you, would you say - yeah, I would consider it*

*KU: I'm scared*

*SA: I'm scared too!*

(Bangladeshi Females, KU, SA – Focus Group 5)

Participants suggested the importance of providing information about facts such as operation success rates and surgical procedural details as ways of countering fear among these communities:

*“It's too easy to cop out – but yeah, I think we need, I do think it's about information, and I do think there's a lot of fear around any sort of surgery...um, so I think it's just saying, you know, maybe just giving facts about how successful it is, and what the process is or whatever, so people can make those informed decisions”.*

(African-Caribbean Female, PC – Focus Group 3)

### 3.3.4 Healthcare Factors

Healthcare factors as a theme is divided into the sub-themes of: GP interactions, lack of information and marginalization.

#### GP Interactions

Participants discussed GP interactions from a variety of perspectives. As earlier mentioned, the issue of weight and the necessity for weight loss was broached by some participants with their GP, whilst the subject was initiated by the GP in other cases. Some participants expressed a downplaying of the issue of weight by the GP, even when this was raised as a concern with the doctor:

*“My son’s BMI is 33... I ask my doctor; he say don’t worry, they not very heavy, he just only 3 stone overweight... Control his diet, he’s not very heavy - don’t worry [says the doctor]”.*

(Pakistani Female, ML – Focus Group 1)

Many participants did however feel supported by the GP when it came to weight loss. They discussed their doctor’s positive response when they expressed the desire to lose weight, and felt that their doctors made the necessary arrangements for the same to happen:

***MD2:** I mean the thing is yeah, I’m talking about my own experience; I been to the doctor’s and I said I’m overweight – he said no, you’re not overweight, but you’re, you’re on the boundary. And uh, she said you want to lose weight, you gonna do the exercise, I say yes, why not?*

***I:** When was this {name withheld} that you, that you had this discussion with your doctor?*

*MD2: It was two years ago...They send me to the uh, uh, gym; ten weeks course, they do the exercise there, they tell you about food, which one is better for you, which one is not; and I, I mean I really enjoyed, ten weeks; after that, I joined the gym. I never ever been in my life to the gym, and never done any exercise, but when I done the ten weeks, I joined the gym, I'm paying now, I'm going everyday now*

(Pakistani Male, MD2 – Focus Group 2)

A number discussed the availability of weight management programmes available within the community as commissioned by the GP. It was observed that the knowledge regarding these programmes appeared ubiquitous, with many participants being aware of their availability. In addition, several participants had either personally engaged in these programmes, or knew someone who had:

*SS: These days GPs can refer you to gym [they can]do it for free*

*NG: I go to the gym and then the class on Monday; actually they have a file on the table there, it says – GPs referrals*

*NG: And there 10 of them come ten till eleven, one hour, and they all been referred by the GP, and they get it free...*

*SS: But only for six months or one year or whatever*

*NG: Then the hope is that they'll get used to it and probably join; and then obviously they have cheap rates; there in {name withheld} city council, I think they only charge 5 pounds a month*

(Indian Males, SS, NG – Focus Group 6)

Moreover, it was observed that culturally adapted community-based weight loss programmes were available, with a particular one targeted at South Asians in that specific area. Participants were referred to the programme through the GP, in liaison with the dietician. These were highly commended, with participants expressing their enjoyment throughout the programme, and the efficacy of the same:

*FA: Um, I was sent to a dietician, for I think, was it, 12 months? He put me on a planned diet, but instead of me losing weight, I've actually gained. So they refer me to another programme – the ones that the GP offer...*

*I: Ok. So at what point did the dietician – was it the dietician that decided that it wasn't working? Or was it you?*

*FA: Uh, no, no, no – he's the one who decided that I should go to another, another diet programme; I think that was called the DHAL programme?*

*AI: I can elaborate on that – this is NHS intervention and is designed for South Asian communities around healthy eating and managing your diabetes*  
(African Female, FA – Focus Group 4)

*I: [P4] sounds like you also went on the same programme? What was your experience?*

*AM: Mine was 1 years ago...So I finished the 11 weeks and I lost 8 kilo*

*I: Ok. So before you went on to the programme, was it your GP who referred you?*

*AM: Through my GP, yeah*

*I: Ok. And when you, was it you that said to your GP – I'd like to lose weight; and then your GP said go onto this programme?*

*AM: Yes*

(African Female, AM – Focus Group 4)

*“It’s a competition – it’s like, it’s 2 hours a week, and then that 2 hours, you do 1 hour is, you talk about the diets, you know, the diet plan that they’ve given you; and then, the other, is it 40 minutes, is exercise - upstairs...we used to do exercise, like hard core exercise; you have to run from here – it’s really good!”*

(African Female, FA – Focus Group 4)

One participant, through her GP, had begun the process towards bariatric surgery. She stated that she felt supported at the commencement of the process, but following some setbacks, did not go through with the surgery. She was unwilling to resume the process again due to her feeling that it was too long-winded. Though she hadn’t returned to her GP, she felt that her doctor would not be as helpful, as she has previously utilised that service:

*FA: ...I was supposed to have one a couple of years ago, but it didn’t go as planned... I lost a bit of weight, but they wanted me to lose 20 kilo in order for me to go through the weight surgery... But instead of me losing that 20 kilo, when they’ve changed my diet, I’ve actually gained...so, since then I didn’t go after it. Because I think the GP they make it difficult nowadays for...*

*I: ...So who started, who brought up the idea of weight loss surgery in your case? Was it you?*

*FA: And I've gained a lot of weight; so I was on crutches for nearly...one year? And my GP, he referred me, he said it's a great, I think you should go for that*

*I: So he's the one that brought it up?*

*FA: Yeah*

*I: What would you like see happen? So in light of your experience so far – so you've been, you went on the yearlong diet, and then after that you went on the 11 week diet, have you done anything since then? Let's start from there.*

*FA: Mmhh, yeah, I did some...um, shakes...*

*I: But that was on your own?*

*FA: Yeah, it was expensive – I had to pay the money; it works, but, if you stop – that's how these shakes are, are [made], you know stop the shake,*

*SQ: You put more weight*

*I: Ok – so, what would you like to see happen?*

*FA: I think the GP should offer a bit more help...and they should be more supportive*

*I: So if you were to go back to your GP now, do you think that they would offer you... So is there – you don't think, since you've had this one experience with them, where they've referred you for a particular programme, do you not think that you can go back to them for anything else?*

*FA: No*

*I: Is that, is that what they've said to you or do you just assume?*

*FA: Yeah, yeah – no, no – I went there recently, and...but thing is there is a lot of cuts that the NHS has done, so...they can't offer that much, they can't help you that much... Yeah – I've actually lost that 20 kilo that I was told to*

*lose; going back to it, the GP is not gonna make it easy as it was... Yeah – the amount that I was supposed to be I've reached there, but I can't go back to my dietician; I have to go through the GP again. It's a long process...*

(African Females, FA, SQ – Focus Group 4)

In addition, the same participant felt that the option of bariatric surgery was raised in passing, rather than as an intentional treatment for her obesity, and sufficient information was not being provided at the GP level:

*“But I found out that one thing, that actually the NHS has no problem providing the, the weight loss surgery; it's the GPs who are not providing enough information...”*

(African Female, FA – Focus Group 4)

*FA: A lot of people are entitled to it, they don't know – coz I didn't know, but the GPs, they're not doing, you know,*

*MM: Their job!*

*FA: Enough to tell people; coz I honestly didn't know. To tell people that, you know, you're qualified, coz a lot of people don't know that they're qualified for*

*I: But credit to him, coz you said the first time, the reason that you were referred to it in the first place is because he brought it up*

*FA: The reason why he brought it up is coz I had a knee, knee surgery; and the reason why I had the knee surgery is coz I was overweight – so if he told me this before, I wouldn't have that knee surgery*

*I: Right...*



*FA: You understand what I'm trying to say? It's just – they tell you when it's too late*

(African Females, FA, MM – Focus Group 4)

Participants often expressed a dissatisfaction with their GPs and with the healthcare system. Many felt that weight loss programmes available via GP referrals were too short in duration or did not have the necessary follow up thereafter; this resulted in a re-gain of weight lost, even though the programmes were effective. The lack of follow up was cited by many as being a contributor towards a lack of self-motivation to continue with diet and exercise:

*“And...my doctor, well, my diabetic nurse referred me to, to active, active-style, at the {name withheld}; and that was aquarobics and using the gym on a regular basis...it was really good. Umm...but then...I stopped going after a while, because – there was no interest, there was no follow up from the surgery – how you getting on? The people at the gym – they didn't seem interested if I turned up or didn't turn up...and so I, and...I simply lost interest”*

(African-Caribbean Female, PC – Focus Group 3)

*SM: But I, I cannot say that, because this programme NHS putting you is just 11 weeks; and [inaudible segment] teaching, you worked 11 weeks very hard, and after that nobody cares what happened to you. So it's kind of – GP have to put you um...*

*SQ: It's better they continue*

*FA: It should be a bit longer, yeah*

**SM:** Longer, like 6 months or year, and, and see the result

**MM:** Yeah that's true – 11 weeks is just too short...

**SM:** She lost 6 to 7 kilo, and the programme stop! What's the point losing that? What's the point putting money of that? If you're not working progress forward

**SQ:** It should be a bit longer

(African Females, SM, SQ, FA, MM – Focus Group 4)

When further explored, participants conveyed their desire for increased provision of information from the GP regarding weight loss and weight loss surgery. They felt that GPs needed to be more intentional about initiating and having these conversations, and appropriately sign-posting individuals regarding the same:

**I:** Do you – do we feel in general that if, um, I don't know, do we feel that our GPs could do more?

**Group:** (In unison) Yes!

**I:** Please – share; what, what would you like to see done? How do you feel that you would benefit – coz you've – at least, certainly, a majority of you mentioned actually going to your GPs as regards weight loss; so...how, yeah, what would you like to see them do?

**MD:** Well, share more information about weight loss and all the services that are out there where you can tap into; I mean, you know, you've been and you've consulted (gesturing to P5 and P6), but I've never personally consulted myself; but I still think they need to be able to help, tell you where you can find help that you need if you've got a weight issue.

*I: Ok - for you 2 (gesturing to BGB & PC) who have been to your GPs, did they, do you think that the information that was given to you was scanty? It just wasn't...*

*PC: Yeah, yeah...*

*BGB: And we had to initiate it, it wasn't - you know like they say (chuckles) – oh...Have you ever considered losing weight, have, have you had that conversation?*

*BGB: No – no, no, no, it was a question of – uh, you (chuckles); you'd get on the scales – I see you have increased...yeah, doctor, and? Well...and that's how the conversation develop; you know; but, I, I really don't want that...*

*PC: I've got a family member who's very overweight...and when they go to the GPs it's not part of the discussion anyway*

(African-Caribbean Females, MD, PC, BGB, PC – Focus Group 3)

### Lack of Information

Participants overwhelmingly cited the lack of information regarding bariatric surgery as the main reason why their communities were not undertaking this surgery. They reiterated the importance of the this being made available to them to increase their awareness, through reading materials such as leaflets:

*MM: So – information is very important and advise, and that's what, ethnic, eh, community doesn't have... So we need more awareness; we need more information – people, whereas community people and, eh, [community] places, all that - they have to provide all that information*

*FA: It should be available for people who needs to do it*

*MM: Yeah – leaflets, some kind [inaudible segment]*

(African Females, MM, FA – Focus Group 4)

*“Haven’t seen any literature about uh, weight loss surgery – haven’t seen a leaflet or anything...I mean, sometimes they have leaflets in the GPs surgery, outside community places – I never seen any, any one like that anywhere...”*

(Indian Male, HP – Focus Group 6)

**BGB:** *But this is an eye opener, this morning, because I didn’t know, I don’t know if any of you knew what we just learnt – that, it, it, this, um, surgery is available to all of us if we, if we...*

**FG:** *Yeah, yeah – I didn’t know*

**I:** *...Why do we think that, um, that ethnic minority groups are not accessing weight loss surgery or bariatric surgery?*

**BGB:** *I think the information is not out there*

**VG:** *They’re not gonna access it coz they don’t know!*

(African-Caribbean Females, BGB, FG, VG – Focus Group 3)

The awareness of the surgery and the precision of information about the surgery varied across the groups. It was observed that the Bangladeshi and Pakistani female groups appeared to have the least awareness about the procedure. The majority of participants were similarly unfamiliar with BMI, with those conversant with it not understanding its relevance:

**I:** *So you have to have a BMI of a certain amount. Do we know what BMI is?*

*Body Mass Index*

**General group:** *No*

(Pakistani Females – Focus Group 1)

Many participants expressed having come across bariatric surgery on television, either through advertisements or programmes aired:

***JB:** I haven't personally seen anybody; I saw a very good advertisement on the television in one of the hospitals in Punjab, in India*

***SB:** I saw a programme on the telly, um, in North Yorkshire; they were bringing people who were of a certain weight and the doctor commanded them to hospital, put a plastic band inside, um...I seen that...*

(Indian Males, JB, SB – Focus Group 6)

***BGB:** The first thing that I know about bariatric surgery is what I see on TV... I honestly didn't know you could get surgery for being overweight! It was fascinating to watch! You know...*

***I:** What did you think of it?*

***BGB:** I think it was good! I think it was good; I mean I didn't even know that you could get it here, I mean – can you get it here? I don't know!*

(African-Caribbean Female, BGB – Focus Group 3)

Participants perceived and referred to bariatric surgery as being a cosmetic procedure, with many associating it with simply the desire to be slim. The surgery was compared to procedures such as liposuction and facelifts:

*“Yeah - and I think the nation doesn't need to fall back on things like this, because these days, like, if you look at celebrities like Kim Kardashian and*

*this, that, the other - every girl wants to look like her - and, you know, a lot of people are having like facelifts or bum lifts, or this stuff.”*

(Bangladeshi Female, SR – Focus Group 5)

*“Yeah, the perception is you see, doing...because lot of cosmetic surgery people get their side effects; or things like, you see, they take – you might be worse than what condition than you are now in (laughs), so you better off not having it”*

(Pakistani Male, ML – Focus Group 2)

It was also observed that those who did have an awareness about bariatric surgery seemed to have a lot misinformation. Some were unaware that it was a procedure available on the NHS, and thought that it could only be obtained privately, whilst others assumed, based on what they had seen on television, that one had to be especially heavy to qualify for the surgery:

*MM: I thought it was private this thing...*

*FA: I used to think as well before, but it's not...no, no it's not private*

*MM: I knew, I knew...but I thought it was private, you have to pay yourself; I didn't know NHS provide this thing*

(African Females, MM, FA – Focus Group 4)

*Yeah – it's just very odd, because I've not really thought about this type of surgery, say for me, because I know that I am obese; but...when I see it on TV, it's people who are...twice my size...So I'm thinking, yeah, I'm thinking,*

*it doesn't really apply to me; but obviously...it does! You don't have to be that overweight*

(African-Caribbean Female, VG – Focus Group 3)

### Marginalization

Participants lamented about feeling marginalised on occasion due to their cultural differences. Some recounted experiences of overt racism though stated that these had occurred many years previously:

*“We have probably, it's not so bad now but over the years we have suffered lot of racism”*

(Indian Male, JB – Focus Group 6)

When asked if they felt that the same in regard to the healthcare they received, they denied it on the whole but expressed being treated differently particularly where one had little command of English. Little proficiency in English was cited severally as a barrier to receiving what they perceived as good treatment. There was also the feeling of being disregarded and undermined when one was unable to comfortably express themselves in English. Interestingly, this treatment appeared to be reversed when one was fluent in English, regardless of their ethnic background:

*I: ...But ok so, but in general do you feel that you don't get the best care because of the fact that you are South Asian?*

*NS: One look at you, you don't get the same reception. But when, when they realise that you can understand them, you are alright, then, then it's a different thing altogether*

(Indian Male, NS – Focus Group 6)

*SS2: Especially if you are not very good with English and you are not known by the GP, they find it [a] lot easier to say no...I think you know, language, language is a problem, and all the young receptionists speak English; and older Asians probably don't have good command of English; so they can't argue with them – when they say no, yes, and that's the point they put the phone down*

*I: So if this person could speak fluent English, do you think they would have treated her...*

*SS2: That makes the difference*

*I: Oh, it makes the difference?*

*SS2: Definitely – I feel that. Yeah, if you can [question them] they'll have to justify what they doing*

(Indian Male, SS2 – Focus Group 6)

*“There's also language barrier – because when you go to GPs, when you go to translate for someone, you cannot explain as much. For example, when the GP is trying to talk to them, it's like they get angry so quickly because it's like - they don't understand, the language barrier – so, they feel like helpless, no matter how we try. I think the problem is the language barrier”*

(African Female, FA – Focus Group 4)

Participants felt that their care was sometimes compromised due to their cultural background, and that they did not receive the same quality of care as their white counterparts. They expressed feeling undermined due to the fact that they were



migrants, even though they had contributed to the national purse through their taxes, and felt justified in accessing the NHS:

*PZ: When I, when I got sick 2012, I started [2012] then [2013], my GP, I ask him about, can you speed up my CT scan. And he said – you know NHS it's for free, in other countries they pay. Then I said – come again? Then he said – NHS is so busy, so it's very difficult. But because I'm not a tempered person; I want to deal with the situation, [rather] than eh, getting angry. I don't get angry. Because, you can imagine, your GP is telling you that. How angry could you be?*

*AM: What did he mean by that? Some countries don't...*

*PI: Yeah – where you come from*

*PZ: He knows I come from Zimbabwe; he knows in Zimbabwe...*

*MM: You pay there!*

*PZ: It would be medical aid or you have to pay upfront – he knows that...Some other countries, they do pay...*

*MM: They do pay – here is free*

*PZ: So here, you don't pay; that why NHS...*

*AM: That's what they said to my mum; my mum has severe arthritis, so I went there one time to translate for her, and they go to her – oh, Mrs {name withheld}it would be good for you to um, go back to your own country coz it's hot. It's hot, it's a hot country. Maybe your arthritis is getting worser because it's a cold country. So I just gave them a dirty look, and like, just said that to my mum.*

*I: Do you think that was said in bad taste? Because it is true...*

*AM: Yeah but at the end of [the day] they know that my mum has a life here; she's got kids here – it's not like, oh go up and go to Somali; she can't just do that. So for her to say that...*

*FA: There's a, there's a different way to say things; if I says to you – hello (in a moody expression), or if I say to you - hello (in a bright manner), it's same language, but it's different the way you say it, isn't it? So, some good things sometimes you can say good way; eh [instead] of saying that, he can say to her – I know this country is cold, and you're born in warm country; eh, it would be helpful if you go back to your country, but it's nothing I can do about it now, this weather; you will accept it. But if I say to you – you come from Kenya, why you don't go back there? You feel like – that's not your business! That's my choice, that's the way I am; you cannot tell me what to do – I'm not your child though. You are my GP, you're here to advise me and to guide me with my health. Nothing to do my privacy. Isn't it?*

*PZ: Not that again, because, you are not well, you are not well. Why were we talking about [inaudible segment] in this country for 20 years, so which is my country now? Where do I pay my tax? Am I paying my tax at my country or I pay my tax here?*

*AM: Yeah, but they don't understand that these people; you can be born in this country – it doesn't matter where you are, how long you've been here, you will always not be white in their eyes*

*PZ: Yeah, but we are talking of the tax which run the NHS – who is paying it. I'm not paying to my country, I'm paying it here*

(African Females, PZ, AM, MM, FA – Focus Group 4)

### **3.4 Discussion**

These focus groups sought to explore potential reasons contributing to the underrepresentation of ethnic minorities in the weight management Tier system and ultimately bariatric surgery in the UK. Three main themes were identified from the focus groups conducted, the findings from which are discussed below in the context of existing literature.

#### **3.4.1 Personal Factors**

The weight management Tier pathway characterises Tier 1 as universal interventions with the implementation of healthy eating and physical activity messaging at a population level. This was observed across all the focus groups, where there appeared to be a general consensus that individuals were ultimately responsible for their food choices. Similarly, participants across the different groups had a good appreciation of the importance and value of exercise. Whereas some were content to participate with the end goal of feeling fitter and healthier, some undertook exercise with the purpose of weight loss, findings similar to those from Jepson et al's (2012) qualitative study that examined motivators and facilitators of physical activity in South Asians.

This general inclination towards exercise appears to contrast with other qualitative studies based on self-reported data pointing to the comparatively lower levels of exercise undertaken by South Asians compared to whites (Hayes et al., 2002; Lawton et al., 2006). Participants from both the male Pakistani and Indian focus groups self-reported having adopted and engaging in various types of exercise. A systematic review analysing the levels of physical activity of South Asians in the UK undertaken by Fischbacher et al., (2004) revealed that Bangladeshis were found to have the

lowest levels of physical activity amongst South Asians, with Indians having the highest levels; this is consistent with the views expressed within the Pakistani male focus group.

Across the female South Asian focus groups, however, exercise was only referred to when incorporated into daily activities. Unlike their male counterparts, there was no mention of going to the gym or attending formal/organised physical activity groups. This concurs with studies showing physical activity amongst South Asian women to be particularly low (Fischbacher et al., 2004; Active Lives Survey, 2017/2018). However, Babakus & Thompson's (2012) systematic review postulated that whereas South Asian women may not actively engage in leisure time physical activity (LTPA), they may be undertaking significantly more exercise from household and occupational activities than is captured in published literature. This review of qualitative and quantitative studies found that almost all studies had measured physical activity in South Asian women using self-report methods. The levels of activity that were reported did not meet the levels recommended for health (Babakus & Thompson, 2012).

The 2017/2018 Sport England Active Lives Survey revealed that individuals from Black ethnicities were less likely than the general population to be physically active. The focus groups in the present study involving Black communities both concurred and contrasted with this finding. Participants within the African-Caribbean group made constant references to their engagement with physical activity, whether as organised group/formal sessions, or individually as in outdoor park gyms. No reference of participation in physical activity was made by the African group. On the

contrary, this group lamented on their previously healthy lifestyles when back ‘home’, and the frustration of the UK weather being an impediment to being active. This concurs with several studies where ethnic minority individuals have cited weather conditions being an obstacle to physical activity (Jepson et al., 2008; Lawton et al., 2006; Grace et al., 2008).

Tier 2 describes lifestyle interventions, with the identification, primary assessment and application of physical activity and dietary changes for those within the stipulated BMI threshold. Several participants across the different focus groups discussed attending weight management programmes (WMPs) as prescribed by their GPs, which typically included a twelve-week gym membership that did not include a dietary component. Those who attended these programmes expressed an enjoyment of the sessions, with some proceeding to maintain active gym membership at a personal cost. However, participants highlighted the low usage of gym facilities by Pakistanis, with this being attributed to the cost factor. Bird et al., (2017), in their evaluation of Tier 2 services across the East Midlands region, identified the underutilisation of WMPs by ethnic minorities compared to whites, attributing this to various compounding factors including lower socio-economic status despite no cost being incurred with GP-prescribed WMPs. Interestingly, Pakistani participants stated that there had been an increased use within their communities in those gym facilities where fees had been eliminated.

### **3.4.2 Socio-Cultural Factors**

Across the focus groups, there appeared to be an appreciation of the importance of consuming healthy foods at a household level. The difficulty of achieving this,

however, was often discussed. The Indian group attributed their dietary quagmire to the consumption of fried foods, as prepared traditionally. African participants discussed the inability to achieve a healthy diet in the UK due to the absence of 'organic' food due to the use of fertilizers and pesticides. This finding concurs with a study by Cooper et al. (2012) examining chronic disease perceptions amongst African migrants living in Scotland, in which an overwhelming number of participants cited the use chemicals and toxins in the growing of crops and rearing of animals in the UK resulting in the high numbers of cancers in the country, stating the opposite to be true in their countries of origin.

Notwithstanding, the Pakistani female group expressed their chagrin at the synonymous association of Asian diets with high levels of dietary fat by HCPs, hence their categorisation as being unhealthy. In contrast to this view, several studies have shown that in comparison to the majority white population in the UK, ethnic minorities consume a healthier diet (Sharma et al., 2002; Higgins & Dale, 2010), with data from HSE (2004) showing that a larger proportion of ethnic minority individuals met the recommended intake of 5-a-day for fruit and vegetables.

As previously discussed, Tier 1 messaging has been inefficient in reducing obesity. The ineptness of Tier 1 in reducing obesity within ethnic minorities in the UK is a result of a combination of complex factors. The adoption of the 'British' diet was observed amongst the Bangladeshi group (the majority of whom had migrated to the UK from Italy), and they attributed this as a contributor to their struggle with weight loss. This assimilation of the local diet was in tandem with other findings, which is an aspect of acculturation - where immigrants absorb cultural practices of the host population (Lawrence et al., 2007). Key points raised during the African focus groups

were mirrored in findings from McEwen et al., (2009). These included the identification of their unhealthy dietary habits, e.g., low consumption of fruit and vegetables. These findings support the concept of the *immigrant health paradox* which postulates that ‘voluntary’ immigrants from low to higher income countries are initially healthier than those of the same ethnic group who are native born to that particular wealthier country (Dey & Lucas, 2006). However, this advantage is observed to dissipate with increased time in the receiving country, instead of being sustained and leading to a positive trend in health. This has been attributed to aspects such as acculturation, stresses resulting from settling into a new environment, as well as racial disadvantages (Luthra et al., 2020).

The contentment with larger body size amongst the African-Caribbean group may be a contributor to the low uptake of Tier 2 WMPs amongst this demographic. This acceptance is similar to findings from other studies examining perceptions of African American women towards a larger body size (Eyler et al., 2002; Kronenfeld et al., 2010). In fact, a study by Flynn & Fitzgibbons (1998) found that African American women were more likely to feel attractive when overweight, and hence are more likely to prioritise a higher body weight above being physically active. In contrast, a systematic review by Toselli et al., (2016) showed that resident Africans were more likely to prefer heavier body sizes than their migrant counterparts, with the latter acculturating to thinner body images. This was complementary to views expressed by the African group in the present study, with one of the participants having begun the process towards bariatric surgery.

With the absence of data examining the transition of ethnic minorities from Tier 2 to 3, it is difficult to analyse what their perceptions of surgery might be. As was evident from the focus groups, participants expression of fear related to bariatric surgery was due to their lack of information about surgery. In fact, a study by Ismail et al., (2013) found that fear, often times drawn from misinformation, was a considerable contributor to ethnic minorities in the Netherlands being significantly less likely to undergo live donor kidney transplantation surgery compared to those of Dutch descent.

Participants' disclosure of their fear of surgery has been substantiated in other studies. Neuburger et al., (2012) concluded from their study that individuals from ethnic minority backgrounds tended to have knee and hip replacement surgeries at a more advanced stage of their disease due to fear of surgery. Moreover, although African Americans suffer greater disability from osteoarthritis than white Americans, they were 3-5 times less likely to undergo total knee replacements (Figaro et al., 2004). This same study also found that African American participants expressed a profound fear of 'being cut up', often associating it with death, and preferring to utilise natural remedies for pain or discomfort.

### **3.4.3 Healthcare Factors**

Individuals meeting the criteria for Tier 2 services require a GP referral for WMPs. As such, these patients must have ease and access to their GP to discuss this process and its outcomes. Several participants across the different focus groups referred to the seemingly easy access to GPs, feeling supported by them with regard to weight loss. Several participants cited their referral to WMPs by their GPs, with some participants discussing their attendance at a culturally tailored WMP, the DHAL programme,



following their GPs' recommendation. These participants expressed their enjoyment of this programme, indicating that they felt they would have experienced a better weight loss outcome if this programme was run over a longer duration. In their systematic review of Tier 2 WMPs, Sutcliffe et al. (2016) identified targeted services such as culturally tailored programmes as being critical for successful WMPs.

However, other participants discussed the barriers experienced when members of their communities who were not proficient in English interacted with their GPs. They communicated feeling dismissed and having generally inadequate consultations. This is likely to discourage those who may desire to address weight loss with their GPs.

Neal et al., (2006), who examined consultations between white GPs and white patients compared with South Asian patients, found that South Asian patients who were fluent in English had shorter consultations compared with white patients, with less interaction between the doctor and patient appearing to happen within them.

Although consultations with South Asian patients with English non-fluency were the longest in duration, these patients received less information compared to both South Asians that had fluency in English and whites, with much of the time dedicated to GPs asking the patients questions. As such, it is worth postulating whether GPs are fully discussing Tier 2 services with ethnic minorities, especially where English language fluency may be a barrier.

In addition, a further reason for the underrepresentation of ethnic minorities in Tier 2 WMPs may be their hesitation in visiting their GPs due to inherent or institutional racism. A literature review examining HCPs attitudes and behaviours towards ethnic minorities found substantial evidence of potential barriers to the receipt of high-

quality health services towards this population. Most notable, and as expressed by participants in the focus groups in this study through their own experiences, was the unawareness of the HCPs of their own attitudes and behaviours in creating barriers to health services for this patient group (Drewniak et al., 2017). FitzGerald & Hurst (2017) found in their systematic review that almost all of the studies included revealed physicians and nurses to manifest implicit biases to the same extent as the general public. They describe these as actions resulting from negative hidden associations between a specified people group (ethnicity, gender, socio-economic status, religion) and stereotypes or judgements.

More specifically, numerous studies have shown that healthcare providers' perceptions of African American patients were more negative than their perceptions of white patients (Green et al., 2007; Haider et al., 2015). Another US-based study examining treatment interventions for hypothetical patients showed significant variation in the prescribed treatments between Black and white patients, for the exact same symptom (Paradies et al., 2013). Similar to the focus group participants in the present research, published studies report ethnic minorities' dissatisfaction with their HCPs, and their perception of bias towards them as patients; this was especially so when the HCPs were white (LaVeist et al., 2000; Cooper et al., 2003).

These biases may explain the consistent expression of lack of information regarding the weight management Tier pathway and bariatric surgery cited by participants across the focus groups in the present research, and as reported in other studies.

Szczepura's review (2005) indicated that one of the reasons for the lower uptake of cervical and breast screening amongst ethnic minority groups was their lack of knowledge about the availability screening programmes, with the lower numbers of

South Asians attending bowel cancer screening attributed to the lack of tailored health promotion material (Szczepura et al., 2008).

### **3.5 Conclusion**

In summary, this chapter has explored the themes and sub-themes identified from the focus groups conducted with the ethnic minority adults. Personal factors play a significant role in participants' perceptions towards weight management. Where there appeared to be a general recognition of the significance of personal responsibility for dietary choices, attitudes and engagement in physical activity varied amongst the groups. Some participants, especially amongst then females, expressed the difficulty encountered with weight loss and the subsequent frustration. Some, however, communicated their success with weight loss following interventions implemented individually or by their GP. Secondly, socio-cultural factors further impacted on participants weight management. Attitudes towards food varied. Where some participants expressed the difficulty in finding foods of similar quality in the UK compared to their 'home' countries, others recognised the impact of traditional foods and their methods of preparation as adverse effects on their health. 'Home' was referred to by some participants with nostalgia, with cultural and climatic differences cited as obstacles to physical activity hence the cause for obesity. Amongst some participants, obesity was minimised due to cultural acceptances of larger body sizes. Reasons suggested for the underrepresentation of ethnic minorities in bariatric surgery was fear, surgery not being a priority especially amongst migrants, and perceptions of the inevitable decline in health with age, hence surgery being futile. Participants cited the central role of the community and community centre, with these being viewed as places for dissemination of information, and the centre serving numerous functions

including providing a location for organised physical activity amongst members. Finally, healthcare factors were key in further elucidating this subject. Participants expressed varied experiences following interactions with their GPs. Where some expressed support and encouragement for and through weight loss, others felt that the appropriate support had been offered to them. Others still felt like they had been treated differently due to their ethnicity, whilst others felt that GP interaction varied with proficiency in English. Participants that had gone through Tier 2 lifestyle programmes, especially those that were culturally tailored were extremely positive about them. They did however feel that the 12-week duration was insufficient to result in sustained weight loss. Participants overwhelmingly communicated a lack of information in regard to bariatric surgery from their GPs, with many having not heard of it or knowing how to obtain it. Those who were aware of the surgery did not appear to have accurate information. In addition, many did not have an appreciation of the clinical significance of bariatric surgery, perceiving it as a cosmetic process. The identification of these themes from the focus groups has been paramount in exposing the views and opinions of this population sub-group in ultimately understanding the reasons behind their underrepresentation in bariatric surgery. The implications for policy and practice arising from these focus groups are discussed in Chapter 5 of this thesis

## CHAPTER 4 - EMPIRICAL RESULTS – INTERVIEWS WITH HEALTHCARE PROFESSIONALS

### 4.1 Introduction

The rising rates of obesity and its global impact on morbidity and mortality have been discussed in both Chapters 1 and 2. As previously outlined, data points to the underrepresentation of ethnic minorities in the weight management Tier system and ultimately in uptake of bariatric surgery in the UK (Welbourn et al., 2014; Ells et al., 2018).

#### HCP interactions with ethnic minorities

There is a paucity of data exploring the experiences of HCP interactions with ethnic minorities in UK, with no existing data of these two groups in relation to the weight management Tier pathway and bariatric surgery. Existing literature examining the interactions between the former and latter highlight ethnic minorities limited proficiency in English as a barrier to both oral communication and understanding health literature (Szczepura, 2005; Falla et al., 2017). In fact, according to the Office for National Statistics (ONS), 16% of Bangladeshis, 11% Pakistanis, 7% of Indians and 4% of Africans spoke limited or no English at all (GOV.UK, 2018).

In addition, cultural differences have also been cited as an impediment to interactions between HCPs and ethnic minorities. The impact of cultural influence on perceptions towards weight, diet and physical activity amongst South Asians in the UK is well documented (Pallan et al., 2012; Emadian et al., 2017), and points to various factors such as issues arising from multi-generational households and the impact of religious centres on dietary choices. Though much fewer data pertaining to this topic amongst Africans and African Caribbeans exist, contributing cultural factors include

identification with larger silhouettes/body size (Moore et al, 2019). Even fewer data are available examining the efficacy of the mandated cultural competency training (CCT) (George et al., 2015) amongst HCPs, and its impact on HCP interactions with ethnic minorities.

### Clinical guidelines

Based on guidance from the WHO (2004) to revise BMI ‘at-risk’ categories for ethnic minorities (refer to Table 3 on page 8) due to their increased risk for obesity-related diseases at lower BMI values, a consensus was reached by the International Federation for the Surgery of Obesity and Metabolic Disorders – Asia Pacific Chapter (IFSO-APC) in 2011 to lower BMI threshold for South Asians for bariatric surgery (Kasama et al., 2012). Although not formally endorsed by the Public Health Interventions Advisory Committee (PHIAC) for bariatric surgery, these thresholds are highlighted to UK HCPs to begin necessary interventions (NICE, 2013). Few published studies exist analysing the efficacy of Tiers 2 and 3 services including data on ethnicity and BMI thresholds. One national survey examining these services in Scotland found that the majority of health boards did not appear to be applying the lower BMI levels to their South Asian patients, the reasons for which were not outlined (Read & Logue, 2015). There is a dearth of data to account for reasons behind the likely non-compliance with lower BMI thresholds, with the possibility of GPs being unaware of it.

Table 6 outlines NICE guidelines for BMI thresholds for bariatric surgery, and the IFSO-APC revised figures for South Asians.

<i>Body Mass Index</i> kg/m <sup>2</sup>	<i>Bariatric Surgery</i>	
	<b>General Population</b>	<b>South Asians</b>
	≥40kg/m <sup>2</sup> with or without comorbidities	≥35kg/m <sup>2</sup> with or without comorbidities
	≥35kg/m <sup>2</sup> with 2 or more comorbidities	≥30kg/m <sup>2</sup> with T2DM or metabolic syndrome
	≥27kg/m <sup>2</sup> considered as a non-primary alternative for poorly controlled T2DM or metabolic syndrome	

**Table 2:** NICE guidance for BMI criteria to qualify for bariatric surgery across the general population as compared to the IFSO-APC revised criteria for South Asians

The aim of this chapter is to present the findings from interviews with HCPs who work within the weight management Tier pathway. The interviews sought to explore their experiences of interactions with ethnic minority adults, including the impact of language and culture, as well as the operational mechanism of the weight management Tier system. Ultimately, it seeks to identify any potential barriers perceived by HCPs that may impede these groups from accessing the Tier pathway, and ultimately, bariatric surgery.

## 4.2 Methods

A multiple-case study approach was used in this study, involving different cases, i.e., HCPs, who are integral to the weight management Tier pathway. As such, HCPs are well placed to provide scope on the phenomenon being explored in this thesis. Purposeful sampling was implemented to identify and recruit HCPs with key roles within the weight management Tier pathway, who in turn provided in-depth data

about their experiences and views. Recruitment was supported by the centralised National Institute for Health Research (NIHR), who solicited expressions of interest (EOI) for the study across the various national Research Networks following ethical approval by the Health Research Authority (HRA). The sample size was limited to three, consistent with recommendations by authors such as Schoch (2019) who advocate for no greater than four cases.

A total of 3 interviews were conducted: one each with two bariatric dietitians, and one with a General Practitioner (GP), all working as HCPs within Tiers 2 and 3. All three individuals responded to the EOI and agreed to participate in this study.

Table 7 below outlines professional and demographic details of the healthcare professionals interviewed.

Participant Pseudonym	Professional Title	Sex	Ethnicity	Tier Along Weight Management Pathway	Geographical Location	Role in Reference to Bariatric Surgery: Pre-surgery	Role in Reference to Bariatric Surgery: Post-surgery	Length of time worked in obesity prevention/management	Direct contact with morbidly obese ethnic minority adults
<b>JC</b>	Bariatric dietician (Primary & Secondary Care)	F	White British	Tier 3	Leicester	- Patient advisory - Patient assessment - Patient support	- Patient advisory - Patient assessment - Patient support	10+ years	Regularly
<b>GY</b>	Bariatric dietician (Primary Care)	M	White British	Tier 3	Leicester	- Patient advisory - Patient support	- Patient advisory - Patient support	5-10 years	Regularly
<b>SD</b>	General Practitioner (Primary Care)	F	White British	Tier 2	Oxford	- Patient advisory - Patient assessment - Patient referral - Patient support	- Patient advisory - Patient assessment - Patient referral - Patient support	10+ years	Regularly

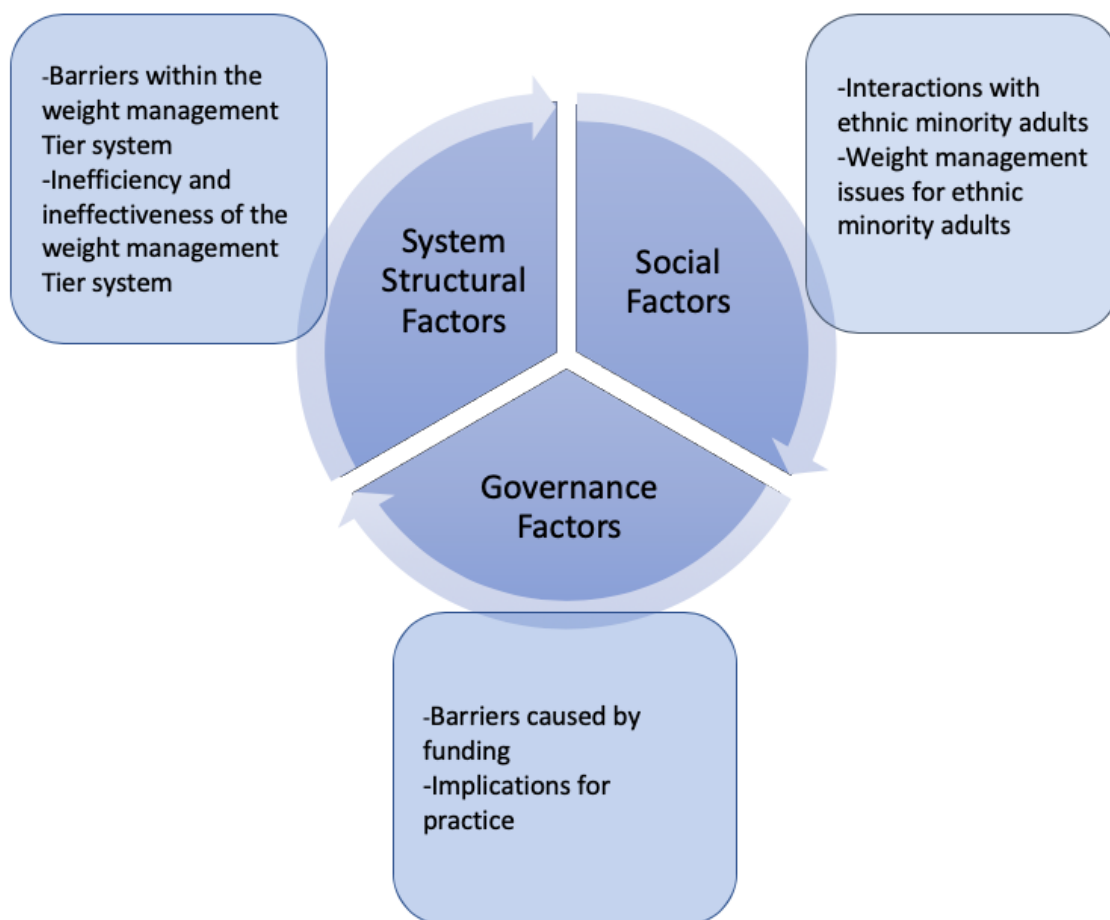
**Table 8:** Professional and demographic characteristics of healthcare professionals interviewed in the present study



All interviews were conducted at the HCP's workplace. The interview schedule, included in **Appendix F**, was designed to address the aims of the thesis. A pilot interview was not conducted due to time constraints arising from a combination of the researcher having to take various leaves of absence and her eventual relocation overseas. Verbatim transcription of interviews from a digital audio recorder was done by the researcher. Thematic analysis was used to analyse the data obtained from the interviews. Further details about the methodology and ethical approval are provided on pages 50-52 of Chapter 2 of this thesis.

### 4.3 Results

The main themes and sub-themes identified from the interviews are outlined in Figure 6 below:



**Figure 3:** Main themes and sub-themes identified from 3 interviews conducted with healthcare professionals.

#### 4.3.1 System Structural Factors

This theme was comprised of two sub-themes: barriers within the weight management tier system; and inefficiency and ineffectiveness of the weight management tier system.

##### Barriers within the weight management Tier system

Barriers within the weight management tier system were regularly cited as being a significant issue. The absence of patients being able to move smoothly from one Tier (the weight management Tier pathway is discussed in detail from pg 17) to the next meant that patients were unable to access the Tier that would be of most benefit to them at their point of need. Participants identified a substantial divide between Tiers 2 and 3, creating a barrier within the system:

*“Because the way the Tiered system is supposed to work, is that there is that people enter whichever tier of the system is right for them. But they're supposed to be free flow between all the Tiers. But there isn't, there is a big divide between Tier 2 and Tier 3. If we had a system that allowed for a good flow - people to do Tier 2 and then when they were ready, move to Tier 3. But we don't. There's a great big gap.”*

(JC – Bariatric dietician)

The importance of an overhaul of the entire system was reiterated repeatedly, which was seen as a way to allow patients to access the Tier that would be of most benefit to them at the time of referral. However, there appeared to be an unwillingness from the echelons of management to bring about the required changes:

**GY:** *Yeah, that's right. The whole [system], the Tier 3, Tier 2 needs revising and reviewing and set up afresh.*

**I:** *Is that recognized from a management position?*

**GY:** *That'll be CCG level*

**I:** *And do they see it as being a problem?*

**GY:** *That's right. It's I don't think – there's very little contact [between the CCG and frontline services]. It's yeah, it's very frustrating. That's where it needs to change, but at the moment, nothing's changed.*

**I:** *Do you think that you would be able to, to lobby from your position, just for the need, and obviously, based on your experience and what you're seeing.*

**GY:** *But we had a big meeting set about 18 months ago [between the CCG and Tier 2/3 staff] and nothing changed from that. That's it. It's very frustrating.*

(GY – Bariatric dietician)

### Inefficiency and ineffectiveness of the weight management Tier system

The weight management Tier system was identified as being inefficient due to its design. With the requirement of patients to attend both Tiers 1 and 2 to allow progression to Tier 3, the bariatric dieticians felt that wasn't necessarily conducive for all patients seeking to lose weight, especially morbidly obese patients. They expressed that the length of time spent attending Tier 2 programmes and the structure of these was simply ineffective for these patients with obesity, and would not result in suitable or sustainable weight loss:

*“But that being a Tier 2 service, if you've got severe obesity - the patients we're talking about - a Tier 2 service is never going to be enough for you. You should do it along the way because it'll teach you a lot that you need to know, good information,*

*evidence-based information from dietitians about healthy eating. Give you a chance to try some exercise options, it's great. The problem is that you do twelve weeks, but it's a year - it's billed, it's sold as a year program. So you have 12 weeks and then you have a three monthly drop in and a weight check. But that's all you have. Now - for many patients that they see, I am sure that it's really good, but I personally don't believe it serves the needs of people with severe obesity. And I would like to see a system whereby they do their 12 weeks – absolutely, it's a very good set up. That, you know, that's got their feet on the right path, they've perhaps lost a few kilograms, they're fired up, they're ready, and then it all stops and it isn't enough force. And they might have lost half a stone or a stone. Not enough – they've got lots and lots of work to do. So the problem with that to me is that it treats everybody from a BMI 25 and upwards the same and they're not - to me people with severe obesity have got much more issues”*

(JC - Bariatric dietician)

In addition, the inefficiency and ineffectiveness of the Tier system resulted in a lack of referrals to Tier 3, of patients having gone through Tier 2 programmes such as LEAP (Lifestyle, Eating & Activity programme) and a culturally tailored programme, DHAL (Diet, Health & Activity in Leicester). This was cited as resulting from a divide in services, hence the absence of the required bridge to progress suitable patients from these Tier 2 programmes onto the Tier 3 service.

*“I mean, as far as Tier 2 goes, there is a DHAL program, which is basically a South – well – it's a South Asian equivalent of LEAP [Lifestyle, Eating & Activity programme] for people whose first language is not English, who eat very much the traditional diet and it is run by a South Asian dietician. So that sort of ticks all the*

*boxes - but - we've never had anybody referred for surgery that has been to DHAL. There's just no joining up at all. Which is the same as the rest of Tier 2/Tier 3 - they don't come from LEAP or from DHAL into Tier 3."*

(JC – Bariatric dietician)

*It's similar to like DHAL, the South Asian Tier 2 weight management group. And I can say that we've never had a referral from that...from the DAHL group and the dieticians that run those. And it - and this is the frustration – it's not even that that's where it should be discussed or encouraging patients to go back to the GP to refer to ourselves [dieticians]. But that doesn't happen - and it's a big, big frustration for me and {JC}.*

(GY – Bariatric dietician)

#### **4.3.2 Governance Factors**

The theme of governance factors is divided into two sub-themes: barriers caused by funding; and implications for practice.

##### Barriers caused by funding

Funding was repeatedly identified as creating barriers to weight management within the Tier system. The existence of different funding bodies for different Tiers and variations of the same within different Clinical Commissioning Groups (CCG) meant that the natural progression from Tier 2 to 3 did not happen, with patients often not being referred as appropriate. Cases of patients repeating Tier 2 programmes in order to reach target number to facilitate further funding was also reported:

*“It’s like a lot of it, is that the dieticians that run these groups are historically funded by public health, and as I said, they kind of have to demonstrate the numbers of figures at the end of 12 months to kind of get um...and that is a frustration, that patients that clinically would benefit from this clinic, at any stage - at later or earlier stage aren’t referred.”*

(GY – Bariatric dietician)

*“Up and down the country, I believe that people's experience has been that the Tiered [system] – the Tiers were meant to be free flow; but because they were organised by different sets of people and funded differently than actually - you know, I think the way LEAP certainly has been funded in the past is dependent on getting the numbers open. So actually, we hear anecdotally, and I don't know how true it is; patients actually being encouraged to go round and round LEAP again [to maintain its funding].”*

(JC – Bariatric dietician)

Interestingly, where the number of people having bariatric surgery was identified as being only a fraction of those who qualified for it, the total number of people having bariatric surgery was cited as having decreased over the years. This was further attributed to the absence of resources, and a revision of the weight management tier pathway which resulted in the appropriate patients not being referred on to Tier 3 from Tier 2:

*JC: And the numbers [of patients getting bariatric surgery] are going down – the number have actually gone down in recent years*

*I: The numbers have gone down?!*

*JC: Yes – funding, resources; and - when NHS England - it's also - it is basically funding; but NHS England reached a point a few years ago - I forget how long ago - where they said if there isn't a Tier 3 service in place, you can't do surgery. In other words, you can't go straight from Tier 2 to Tier 4, you must have a Tier 3 service. So for a while I think the numbers dropped because areas unlike ours, because we have a...Tier 3 service - we've had it for all these years. But other areas had to scramble around, say - well, we don't have a Tier 3. And if I'm honest with you, there's a number, coz we've had one or two people referred and who've done services elsewhere; and actually, people have just rebranded what they offer as Tier 2, and it's called a Tier 3. Because let's face it, what else are you going to do? You're gonna - you're just going to re-label what you've got coz you don't have the resources to build a brand-new spanking service even though that would be ideal - it's expensive.*

(JC – Bariatric dietician)

### Implications for practice

The use of the NICE recommended lower BMI threshold was not utilised within the weight management Tier system in Leicestershire. This was attributed to the lack of its implementation from CCG management level, as well as the lack of funding being a potential reason. As such, the same BMI categories were used for bariatric surgery irrespective of ethnicity. On the contrary, the GP confirmed the use of these lower BMI thresholds for South Asian patients:

*JC: There are lots and lots of people obviously that do qualify...On BMI grounds*

*I: Exactly. Yes. The research does show that in terms of what they fit in terms of BMI...So actually, so to slightly retract, um, so South Asians, according to the NICE guidelines, are actually eligible for bariatric surgery at a lower BMI...*

*JC: Yes. Now, we've never done that in Leicester – whether that's resources; um, but we've never really signed up to the BMI 30... We've never really signed up to that in Leicester. Whether that's, whether it's a lack of resource - but we see everybody on the same standard NICE criteria for the BMI. So...*

*(JC – Bariatric dietician)*

*I: So as regards the bariatric referral pathways now, one of the criteria that's NICE and that the NICE guidelines have changed to reflect is the fact that South Asians do show greater adiposity for the same BMI as Caucasians. Now, do you follow the, the recommended lower BMI threshold for South Asians?*

*GY: I might say first, yeah – no. The criteria set up by the commissioning, NHS commissioning, but it's got to be CCGs and that hasn't changed in the last five years. So in here, in Leicestershire it's set at BMI 35 with comorbidities*

*I: Irrespective of their ethnicity?*

*GY: Irrespective, yeah, of their ethnicity*

*(GY – Bariatric dietician)*

*I: Yeah, yeah, that's interesting. So part of what the NICE guidelines state...so this was brought in in...I was to say 2011? Was the lowered threshold for South Asians for BMIs – so whereas, you know, it used to be 35, um, plus 2...*

*SD: It's 28, isn't it 28? With diabetes plus 2 comorbidities*

*I: So – for, right - diabetes with 2 comorbidities, yeah. So - do you know if this is something that you follow through in terms of referring on? Or at least starting that conversation as regards weight loss?*

*SD: We certainly do in terms of our practice, protocol, offer it.*



(SD – General Practitioner)

It was expressed that not all GPs were aware of the weight management Tier system, or in some cases, had incorrect knowledge about the system. As such, patients were not being referred as appropriate. This was an important observation as all referrals into this pathway are made by the GP:

*“There's a lot of misunderstanding about [bariatric] surgery out there. And, you know, it's a specialist area and even GPs actually have the wrong ideas sometimes.”*

(JC – Bariatric dietician)

*“Yeah, yeah. Because again, a lot of GP - some GPs refer, some don't; you know, you can...that's just how it is. And I'm sure there's a lot of GPs that maybe are unaware of this service or the weight loss surgery and its [pathway]...”*

(GY – Bariatric dietician)

The participating GP stated that healthcare professionals would like to be more informed about how to engage successfully with ethnic minority patients, and to have information about possible barriers to participation of these patients in health interventions, of which bariatric surgery is a part of, as well as knowledge of available services:

*“Of which, of which bariatric surgery is part of, but follows supporting people to make other changes. I think I would say that what I would want to know are...what's effective? What could be available that would help? What are barriers? How can we act? How do we mitigate against them? What would the right advice be to giving a brief intervention? What might be a service that we could ask the commissioning group to look at? Is there evidence for another way of doing things that we could ask*

*people to look at that might open up options and facilitate people who might not have engaged, engage in?”*

(SD – General Practitioner)

### **4.3.3 Social Factors**

The theme of social factors is divided into two sub-themes: interactions with ethnic minority adults; and weight management issues for ethnic minority adults.

#### Interactions with ethnic minority adults

Interactions with ethnic minority adults as described in the three interviews varied between the bariatric dieticians and the GP. Whereas the dieticians expressed minimal contact with ethnic minority adults, the GP described 45% of her patient population not having English as their first language. One of the bariatric dieticians estimated that over the previous year, the number of ethnic minority adults he had seen was only 8% of his total patient groups, even though this demographic constituted 25% of the local geographical area. One of the reasons that was suggested as being a contributor to this discrepancy is the aforementioned lack of referral from the DHAL programme on to Tier 3 services. In addition, it was felt that bariatric surgery was not marketed to this group:

*“It might be lack of marketing. I mean, that's something that we haven't really marketed. We've had the same number of referrals for the last eight years. Nothing's [demographically] changed in them.”*

(GY – Bariatric dietician)

In contrast, the GP expressed a good uptake of bariatric surgery, and success in response to the surgery, amongst her ethnic minority patient population. She observed that this was likely a result of word of mouth”, with people from minority ethnic groups having successfully undergone bariatric surgery motivating others in the community to also attend:

*“Notably from - I guess...and to have had BME patients is very, very, very successfully get through bariatric surgery and do absolutely extraordinary brilliantly. Actually some - a number, but it's from a quite a close knit BME community who are [registered in my surgery] and actually some of the other requests have come from other members of the - I guess there's that thing that once somebody in a close-knit community has had it, and it's successful, then other people know about it.”*

(SD – General Practitioner)

When asked about how her ethnic minority patients interacted with her with regards to discussions around weight loss, the GP described two groups: those that directly asked for help, and those for whom raising the issue required a considered approach:

*I: ...how - in general, how do you find the BMEs [interact]; so when you do bring up the issue of weight loss from a community or from a primary care point of view*

*SD: That's [a] very interesting question, because there's a kind of dichotomy; there are the people who come to see you and say, I'd like some help with my weight. And that is a very easy way to - you've gotta weigh in, that feels comfortable on both sides, I think...um, I guess what's more difficult is when you're working out whether to talk about weight management with someone who hasn't raised it and how you [approach it]...I mean my way in had often been if they had a health condition that was, you know, if they were talking about concerns about the health condition, that does have a*

*clear link to obesity; again, you've kind of got a way in so...examples would be things like diabetes and joint pain...*

(SD – General Practitioner)

#### Weight management issues for ethnic minority adults

Various issues pertaining to weight management were identified by the healthcare professionals. Where some were cited as being specific to ethnic minority adults, many were recognised as being difficulties experienced by any individual going through the weight management Tier system. Interestingly, language was identified as a potential barrier by one dietician, yet disregarded as a barrier by the other dietician whose ethnic minority patients are fluent in English and did not require an interpreter:

*“I think sometimes people's understanding is, um, sometimes different, sometimes there is a language barrier; there's no doubt that the language barrier can be an issue for some quite complex issues that you want patients to understand about why following the right diet is so important and no surgery doesn't just do that for you; you know, it's actually trying to get that understanding across”*

(JC – Bariatric dietician)

*“I mean, again, I've been just thinking, you know, I've been doing this nine years - I wouldn't say language has been a difficulty; I can't even think of a handful of patients over the years where we've needed an interpreter. Umm...so that has hasn't really been an issue. Umm...regarding, I'm thinking about resources, our resources aren't translated into Asian languages, so we don't have Gujarati, Bengali, Urdu translations. But as I said, maybe because we have never had to really address that, because they're always - can read and speak English well. I wouldn't see it as a*

*language difficulty or in needing resources translated – well that hasn't been an issue.”*

(GY – Bariatric dietician)

The complexities of culture were identified as a potential barrier towards making changes in food and healthy eating amongst ethnic minority groups, particularly South Asians. With the interplay of religion, and family dynamics, these were cited as sometimes being difficult to navigate in relation to weight management:

*“You know, is very hard within their culture for some families to say, oh, no, no, thanks, I wouldn't have any. That doesn't seem to go down very well. So some people, obviously their religion is a big part of it. I've had people that come to me, I've got one at the moment and he spends most of his day down at the temple. And again, the cooking is traditional - he says if I eat my meals at home, we can do it with lower fat. But I - most of my meals are at the temple and I don't have any chance of changing that”*

(JC – Bariatric dietician)

*“One or two cases where I've had a younger member of the family come to me. They live in a big extended three or four – well, three generations. And it's perhaps mom-in-law or even granny who cooks. And if you ask for your meal to be cooked differently or can I cook separately or you know, well, you're being disrespectful. So that's something I've heard on a number of occasions, not a big number of occasions, but as a percentage of the whole BME or South Asian [community].”*

(JC – Bariatric dietician)

In addition, the paramount place of tradition amongst ethnic minorities was identified as further being an important factor to consider when encouraging obese patients towards weight management. The involvement of the family was cited as often times being tantamount to success in regard to weight management:

*“You know, this rejection of the tradition; but is seen as, you know - the term that we hear parroted back to us, you know, we're told we're being disrespectful. So unless you can get the whole family on board, there is an issue there - with some families. But yeah, I think a lot of it you know, some of some of it is that - some of it is the, again, culture.”*

(JC – Bariatric dietician)

#### **4.4 Discussion**

These interviews sought to explore potential factors impacting the interaction of ethnic minorities with the weight management Tier system and the uptake of bariatric surgery from the perspective of healthcare professionals. Three main themes were identified, the findings of which are discussed below in the context of existing literature.

##### **4.4.1 System Structural Factors**

An evaluation of a multidisciplinary Tier 3 weight management service (Jennings et al., 2014) portrayed a picture of a natural progression from Tier 2 to 3, with an acknowledgement of the failure of patients to lose weight hitherto recruitment into Tier 3 through Tier 2. This is in contrast to the bariatric dieticians’ expression of frustration at the lack of appropriate referrals to Tier 3 from Tier 2, even when patients fit the criteria. An observational study of weight change among adults

referred to Weight Watchers by the NHS (Ahern et al., 2011) found that patients with a BMI  $<40\text{kg/m}^2$  recorded small amounts of weight loss and postulated the need for more intensive weight loss interventions amongst this group. These findings are consistent with the bariatric dieticians' articulation of the more immediate need for patients with more extreme obesity to access Tier 3 services.

The frustration with the Tier system as described by the bariatric dieticians is consistent with the discussion of Welbourn et al., (2016). They state that the inability of GPs to refer directly to Tier 3 means that patients are forced through cyclical patterns of weight loss and weight gain obtained through dieting. This results in a lack of inertia and leads to resignation, dissuading patients from committing to the requirements of the Tier system. The suggestion of an overhaul of the Tier system as postulated by the bariatric dieticians was similarly intimated by Welbourn et al., (2016), who suggested the creation of metrics for quality assessment with monitoring and evaluation algorithms and external peer review panels. In addition, Capehorn et al., (2016) further attribute the inefficiency and ineffectiveness of the Tier system to the fact that obesity treatment in the UK remains a non-mandated service; hence, weight management services are only restricted to limited areas. They argue for additional central government funding, and solidarity in support of all Tiers by all commissioning groups.

#### **4.4.2 Governance Factors**

The severe disparity between the numbers of people qualifying for bariatric surgery and those receiving it is cited in the literature, echoing the bariatric dieticians' statements. Welbourn et al., (2016) state that less than 1% of those who could benefit

from surgery ultimately receive it. The decrease in the numbers of cases of bariatric surgery articulated by one of the bariatric dieticians has also been confirmed by Welbourn et al., (2016), who state that cases decreased by 31% between 2011-2012 and 2014-2015, from 8794 to 6032, respectively. Whereas the UK ranks second in rates of obesity in Europe, it only ranks 13<sup>th</sup> out of 17 countries for rates of bariatric surgery (Angrisani et al., 2015). Welbourn et al., (2016) attribute these decreases in numbers of surgery to the restriction by commissioners due to the perceived up-front cost, despite evidence of cost saving and ability to recoup these initial costs further down the line.

As such, in spite of the well documented perpetual increase in obesity and numbers of patients meeting NICE criteria for bariatric surgery, hence the need for increased procedures, funding has not increased (Ahmad et al., 2014). In addition, according to the National Bariatric Surgery Registry (2014), the reason for the reduction in publicly funded operations was generally unknown, but it was suggested that bariatric surgery remained a stigmatised procedure, dissuading people from taking it up. The absence of funding was discussed at length by the bariatric dieticians, with their expressing the difficulties experienced on the ground due to funding issues. Notably, the decrease in the number of procedures was attributed to the introduction of the required availability of a Tier 3 service before consideration for surgery. Public Health England's (PHE) (2015) national mapping of weight management services report that only 21% of CCGs in England have a Tier 3 service; as such, the progression of patients from Tier 2 to 3 has been significantly impeded, resulting in the decrease in total procedures.



The difficulty associated with various funding bodies has resulted in the inability of any one entity to take overall responsibility for weight management services. This frustration was expressed by the bariatric dieticians, who have witnessed a reluctance of change being implemented from senior management. PHE (2015) report that within Tier 3 service, 44% were commissioned by CCGs, 42% commissioned by local authorities, with 9% jointly commissioned. There is clearly a need for all commissioning groups to work in concert to provide a more efficient and effective service.

#### **4.4.3 Social Factors**

Interactions with ethnic minority adults appeared to vary between the HCPs. Where the bariatric dieticians expressed limited contact, the GP communicated regular interactions with this demographic, with this group comprising almost half her patient load. Studies have shown complex relationships between ethnic minorities and HCPs. Chauhan et al., (2020) undertook a large systematic review exploring the conceptualisation of ethnic minority patients in international literature and the evidence of patient safety events arising amongst this demographic internationally. One of the main themes from their findings examined interactions between ethnic minorities and HCPs. HCPs were found to underestimate patients' desire for information and engagement in decision-making by HCPs, resulting in less health and medication information being disseminated compared to the population majority. Additional concerns included distrust of HCPs based on previous experiences, reluctance or lack of engagement with HCPs based on cultural and/or religious beliefs, and difficulties with language proficiency and health literacy. In some cases, ethnic minority patients were only willing to see a GP if they were a similar ethnicity

to themselves, feeling assured they would be understood. In fact, Taylor et al., (2019) identified the absence of Pacific Islander HCPs, which was related to a lack of cultural awareness and understanding in the interactions between non-Pacific Islander HCPs and Pacific Islander patients. Factors such as the lack of engaging patient's family members due to the importance attached to the family unit, and the provision of nutritional advice that did not resonate with Pacific Islander diets, were significant contributors to the high attrition rate amongst the latter's attendance for bariatric surgery. The bariatric dieticians in the present case study similarly expressed the complexity of culture when interacting with their ethnic minority population, citing the importance of cultural understanding so as to be effective in their efforts with these patients.

Lucas et al., (2013) argue that providers need to have an understanding of the target group's attitudes, lifestyle and beliefs if an intervention is to be successful. With the uptake of health information amongst ethnic minority groups being recognised as lower than the general population (Lucas et al., 2013), the need for cultural awareness is even more pertinent. Patel et al., (2012) discuss that in many multi-generational households, the eldest female makes the dietary decisions, which can make it difficult for younger family members to alter dietary choices. This converges with the bariatric dieticians' experiences with ethnic minority patients. Moreover, a study by Emadian et al., (2017) found that overweight and obese South Asian men reported the responsibility for food choices fell on their wives, with the men expressing a lack of control over their own diet; as such, it could be argued that women have the power to instigate positive dietary changes in these families.

However, a literature review undertaken by Lucas et al., (2013) found that women often expressed a moral conflict between adopting a healthy diet and being shunned within the family or community for not providing traditionally luxurious foods, or simply adhering to traditional diets in spite of their proven negative health consequences. In addition, in a study by Cross-Bardell et al., (2015), South Asian women conveyed that the difficulty in implementing healthy dietary changes resulted from the reluctance of other household members in embracing them, especially within multi-generational households.

A study conducted by Farooqi et al., (2000) examined attitudes toward diets in South Asians at risk of heart disease. Interestingly, participants expressed the conviction that their diet was healthy as it had been passed down over generations, yet their ancestors had not struggled with CVD. A common belief held amongst the vegetarian South Asians in this study was that the exclusion of meat from their diet protected them against CVD.

In addition, the study found that participants resisted changes in their cooking practices due to the fear of sacrificing taste if food was cooked in any other method aside from frying in oil. Patel et al., (2012) found that the association of style of cooking, as well as ingredients was further adhered to strongly within this community, as it represented pride and identity. All of these resonated with the bariatric dietitians' experiences with their South Asian patients. However, the GP participant discussed the power of peer opinion and influence in helping to support her ethnic minority patients in optimising the successful outcomes of bariatric patients.

## 4.5 Conclusion

In summary, the chapter has explored the themes and sub-themes identified following interviews healthcare professionals along the weight management Tier pathway. System structural factors appear to continue to play a significant role in ultimately creating obstacles for the uptake of bariatric surgery amongst ethnic minorities. Barriers within the Tier service was cited as a significant inefficiency of the system. The inability for patients to join pathway at the Tier best suited to them resulted in recidivism and an unnecessary delay for morbidly obese patients to access appropriate treatment. There was a need for the culturally tailored Tier 2 programmes to liaise better with Tier 3, as the bariatric dieticians had not received any referrals from this group. This was significant, as it meant that the ethnic minorities whom these programmes were tailored to accommodate were ultimately not moving forward within the Tier pathway. Issues of governance were further highlighted as being problematic. The need for an overhauling of the system was constantly expressed, and it was hoped that this would result in centralised funding and management.

In spite of Leicester's ethnic diversity, it was expressed that the lower BMI thresholds were not being observed, in spite of these being NICE recommendations.

Management within the CCG was cited as being responsible for this, with the lack of funding potentially being a contributor. In addition, it was communicated that there had been a national decrease in the overall numbers of bariatric surgeries. This was attributed to the lack of resources, as well as the requirement for a Tier 3 specialist service prior to surgery, which many locations are lacking. It was further observed that many GPs were unaware of the weight management Tier service, hence unable to refer on their patients who would be eligible. Moreover, some of those who were

aware of the service had incorrect information. There was however an acknowledgment from the participating GP of the need for cultural awareness and a better understanding of the needs of ethnic minority patients from a healthcare professional perspective, so as to adequately meet these needs.

Finally, social factors were recognised as a contributor to the low numbers of ethnic minorities undergoing bariatric surgery. Language was recognised as being a barrier to successful patient interactions. It was also observed that bariatric surgery has generally not been marketed or tailored towards this demographic. However, it was expressed that surgery had been successful in ethnic minority patients, with a higher likelihood of its uptake where information was passed on by ‘word of mouth’ within these communities. The complexities of food and its cultural inferences was recognised as a potential barrier towards addressing dietary changes amongst these communities.

These findings have provided informative insights into the challenges facing ethnic minority patients in regard to the weight management Tier pathway, and ultimately into bariatric surgery. The wider implications for policy and practice arising from these interviews are discussed in Chapter 5 of this thesis.

## **CHAPTER 5 - DISCUSSION**

### **5.1 Introduction**

This chapter provides an overall discussion of the findings of this MPhil research, the strengths and limitations of this research, implications for policy and practice, and recommendations for future research. The use of a qualitative approach allowed for the expression of views, opinions and perspectives from two key groups of stakeholders: ethnic minority adults and healthcare professionals working within the Tier system for weight management and bariatric surgery. Whereas previous studies have explored disparities in the uptake of health interventions such as cancer screening among ethnic minorities and the general population (Szczepura et al., 2008; Moser et al., 2009), the literature search for this MPhil project was unable to identify published studies that have explored the underrepresentation of ethnic minorities in the weight management Tier pathway and ultimately, the uptake of bariatric surgery in the UK. As such, this research project has uncovered important themes as expressed by both stakeholders, which have in turn shed light on this phenomenon. As highlighted throughout this thesis, these findings are important due to the increased predisposition to T2DM and CVD amongst the ethnic minority adults.

### **5.2 Summary of Research Findings: Focus Groups and Interviews**

The focus groups conducted with adults from these communities sought to explore perspectives, attitudes and experiences regarding bariatric surgery. The interplay between the personal, socio-cultural and healthcare factors illuminate the reasons into the challenges in the uptake of bariatric surgery amongst this population. The interviews conducted with healthcare professionals along the weight management

pathway further shed light on these obstacles, with the main themes identified being system structural, governance and social factors.

At Tier 1 level, focus group participants expressed a good appreciation of the individual's role in weight management and the impact of the decisions made regarding dietary choices, with a seemingly clear understanding of the concepts of healthy and unhealthy foods. However, an individual's inability to succeed at this level was associated with the complexities of cultural dynamics, which impact their ability to make long-term healthy dietary choices. These complexities were discussed by the bariatric dieticians who, based on their interactions with South Asians, observed that these cultural norms prohibited the refusal of foods served in places of worship or offered during social gatherings or visits, which were often times unhealthy (e.g., sweet or/and fried). Morrison et al., (2014) report that due to the complex perspectives towards food both from systemic beliefs (different foods having 'heating' and 'cooling' properties) and community contexts (food being central to any gathering), consistently making healthy food choices is often problematic, across various social and environmental contexts. Moreover, the bariatric dieticians found from their experiences with South Asians that implementing dietary changes at household level, especially within multi-generational structures, was often challenging.

In addition, a literature review by Patel et al., (2012) analysing cultural barriers to lifestyle behavioural change amongst South Asian migrants living in high income countries such as the USA and the UK, found that the significance of cultural identity was considerably more amplified in this group compared to their counterparts in the

native countries. As such, there was a greater likelihood amongst migrants to adhere to traditional practices and norms. On the contrary, all of the South Asian participants in the present MPhil research expressed intentionality towards moving away from traditional methods of cooking and adopting healthier practices. This was consistent with data from a mixed method study analysing dietary behaviours in South Asians by Emadian et al., (2017), who found that 54% of participants were identified as having a healthy diet based on their score for the UK Diabetes and Diet Questionnaire (England et al., 2017). Moreover, Lawson et al., (2008) found that healthier modifications were more likely to be made to cooking methods when individuals had conditions such as T2DM or CVD.

As the participating bariatric dieticians did not have interactions with African and African Caribbean populations, no dietary comparisons could be made with their South Asians patients. As discussed in Chapter 4, African participants attributed their inability to make healthy dietary choices due to the absence of ‘organic’ foods in the UK, which led to them being unable to lose weight when engaging at the Tier 1 level. Goff et al., (2015) undertook a detailed observational study assessing the dietary intake of West African and African Caribbean individuals in the UK, using multiple, standardised triple-pass 24 hour recalls which were then analysed using a nutritional composition database. They found that the West African participants’ diets remained largely traditional, whereas the African Caribbean participants reported more accultured diets which were significantly higher in energy, which the authors attributed to their longer residence in the UK. However, a study by Asamane et al., (2020) assessing the nutrient intake and nutritional status of an ethnically diverse sample of UK older adults, found that South Asian participants had significantly



higher intakes of total energy and percentage total energy from fats compared with African Caribbean participants. Where African and African Caribbean populations have been historically seen to have genetic cardio-protection, emerging evidence suggests that this is being lost with subsequent generations in the receiving high income country due to increasingly accultured diets (Goff et al., 2015).

Whilst focus group participants in the present study expressed an understanding of healthy eating and their efforts towards achieving this, including positive outcomes in some cases, HCPs cited the difficulties experienced by their South Asian patients in succeeding at this task. Published data points to both healthy diets (HSE 2004; Higgins & Dale 2010) and unhealthy dietary choices (Holmboe-Ottesen & Wandel, 2012) amongst South Asians compared to whites. As such, there remains a need for additional and robust research providing more accurate data regarding the dietary habits of ethnic minorities in the UK. Though a variety of dietary assessment methods are available, it is recognised that even those most commonly used, such as food frequency questionnaires (FFQ), single or repeated 24-hour recalls and food diaries, are subject to various forms of bias (e.g., reporting and recall bias). and are time-consuming, which may compromise results (Thompson & Subar, 2013), However, Dao et al., (2019) advocate for the adaptation, evaluation and validation of the chosen method to fit the specific study population. Therefore, it is recommended that suitable dietary assessment methods are utilised across a large and representative sample of ethnic minority participants living in the UK to provide insights into the contemporary dietary practices in these populations.

Several impediments to accessing Tier 2 services were reported by the ethnic minority focus group participants in the present research. Some expressed indignation when discussing interactions with their GPs where they felt undermined for their ethnic background. As conveyed by several participants following GP consultations (see pages 111-112), it appeared that HCPs often seemed unaware of their attitudes towards these populations during care provision, and that it was easily perceived by the ethnic minority participants. Although a wide catalogue of literature evidences the existence of unconscious bias towards ethnic minorities by HCPs as earlier discussed (Paradies et al., 2013; FitzGerald & Hurst, 2017; Burgess et al., 2017), there is limited evidence that supports the desire of HCPs in identifying and addressing these biases. In fact, the opposite was found to be true, where HCPs seemed to believe that patient ethnicity surreptitiously affected the quality of health care provided, but that discrimination, though evident in other HCPs' practices, was absent in their own (Drewniak, 2017). The desire to have more productive engagements with ethnic minorities and be better equipped to address barriers in how they can optimise their health as expressed by the GP in the current research was encouraging, and likely to be reflected across many healthcare professionals. Though cultural competency training (CCT) is mandated within UK healthcare settings, it has been identified as ineffective (George et al., 2015). There remains a crucial need for the modification of this approach to improve its outcome, or alternatively to identify and implement a more effective strategy.

A further hindrance expressed by focus group participants to accessing Tier 2 services was the apparent lack of deliberateness in approaching the issue of weight during general consultations. They felt that it was the GPs prerogative to raise the topic and

suitably sign-post patients in the right direction. The difficulty of broaching this subject was reiterated by the GP who communicated the predicament in sensitively addressing it, especially with patients who have not initiated the conversation. Blackburn et al's., (2015) qualitative study examining GPs perceived barriers to broaching the subject of weight in general practice found that the majority of clinicians did not raise it routinely during general consultations, as they believed that it was inappropriate or unacceptable to patients, especially where consultations were due to a non-obesity related issue. Furthermore, many appeared to be unknowledgeable about their role in obesity management and prevention at primary care level. This is consistent with the views of the bariatric dieticians as reported in Chapter 4, who cited a lack of knowledge or/and accurate information of the weight management Tier system by GPs.

Moreover, when exploring the HCPs interactions with this demographic, experiences were noted to vary. Where the bariatric dieticians communicated limited contact between themselves and ethnic minorities, this resulted in obstacles being encountered when encouraging their South Asians patients towards weight loss, due to the dieticians' lack of understanding the complexities of culture, tradition and family dynamics. On the contrary, the GP, whose patient population comprised nearly half of ethnic minorities, appeared to have a strong understanding and appreciation of the various cultural norms of this demographic and communicated generally positive consultations. The importance of the understanding of culture was identified in Taylor et al's., (2019) study that focused on HCPs interactions with Pacific Islander patients in New Zealand at the preoperative stage leading to bariatric surgery. The significance

of HCPs' understanding of Pacific Islander culture was identified as being one of the paramount facilitators of these interactions, hence arresting bariatric surgery attrition.

The necessity of being referred to, and fully engaging in, the Tier 2 level for this demographic is evidenced by the expressed struggles with weight loss discussed by both focus group participants and HCPs. This is mirrored in the literature review of Lucas et al., (2013), which highlighted similar struggles in weight loss as expressed by South Asian populations. They note that this is likely a result of the difficulty in individual pursuits of dietary changes in these communities where multi-generational familial structures are common. This was similarly communicated by the bariatric dieticians as being their experience when interacting with members of these communities within their Tier 3 service. They found that weight loss pursuits by individual family members were often complicated by the difficulty in preparing separate healthier meals amidst meal preparations for multiple family members; or alternatively, the opposition faced by women (as the primary cook) from family members when efforts were made in assimilating healthier dietary options/processes. These findings were consistent with those reported by Cross-Bardell et al., (2015).

As such, the significance of culturally tailored WMPs at Tier 2 level cannot be over-emphasised. The previously described DHAL programme (page 26) which focuses on the provision of nutritional information that is tailored for South Asian culture and traditions, has been shown to equip individuals, especially women, to effect long-term dietary changes at house-hold level. The importance of culturally tailored interventions for population sub-groups have been widely discussed in the published literature (Barrera et al., 2013; Wallia et al., 2014). The use of the DHAL programme

was referenced by focus group participants in the present MPhil research to be extremely positive, some of whom had taken part in DHAL following referrals from their GPs.

Numerous participants, however, expressed frustration with the lack of follow-up after participating in these programmes, with others articulating the usefulness of the programmes that were delivered over longer durations, especially where weight loss had occurred. These opinions are consistent with a Department of Health systematic review concluding that sustained weight loss was more likely to be achieved within programmes that were targeted towards specific populations, as well delivered for periods longer than the typical 3-month time frame (Sutcliffe et al., 2016). This suggests an area that requires review and modification within Tier 2 programmes that are typically conducted over 3 months.

Moreover, the bariatric dieticians, though acknowledging the appropriateness and positive impact of the DHAL programme, voiced their grievance related to a lack of any referrals at Tier 3 level from this programme. They attributed this to the inefficacy of the pathway, but it may also be possible that aspects such as language and cultural differences play a part. There may be hesitation from the participants in proceeding to a non-culturally tailored programme (Tier 3 services are not culturally adapted), or a lack of understanding of the Tier 3 service due to language barriers. A large systematic review examining critical features of Tier 2 weight management programmes identified that South Asian service users were more likely to adhere to programmes where service providers had appropriate language skills (Sutcliffe et al., 2016), as well as non-judgemental and empathetic attitudes so as to foster trust

between these parties, especially where the service provider was from a different culture (Morrison, et al., 2014).

A programme similar to the DHAL programme is the HEAL-D programme (Healthy Eating & Active Lifestyles for Diabetes), currently being evaluated in London, which targets people of African and Caribbean descent with T2DM and addresses diet and body weight from culturally relevant perspectives (Moore et al., 2019). Where the DHAL programme is recognised as a Tier 2 service, the same is not so for the HEAL-D programme. If found to be effective and well received upon conclusion of its current evaluation, its adoption into the Tier 2 system would be important to consider, especially so where concentrations of these ethnic groups are greatest.

At both Tier 2 and 3 levels, language was cited by focus group participants and HCPs as a significant barrier towards the provision and receipt of care. There is a plethora of data evidencing the detriment of language barriers within health care (Hussain-Gambles et al., 2004; Scheppers et al., 2006). Where focus group participants indicated that limited proficiency in English was associated with poor reception by healthcare professionals, two of the HCPs expressed the difficulty in conveying information to patients who were not proficient in English. A recommended solution to this is the use of professional interpreters, which has been widely evidenced as providing the best outcome for patients with limited English proficiency (Scheppers et al., 2006; Brisset et al., 2013). A large systematic review that examined the use of professional interpreters in healthcare settings arrived at three main conclusions: firstly, they resulted in fewer translational errors; secondly, both patients and practitioners reported greater satisfaction compared to the use of ad hoc interpreters (such as family members or friends); and finally, a decrease in disparities in service

use was identified (Brisset et al., 2013). In addition, the absence of resources translated into other languages was cited by the bariatric dieticians, which would consequently result in a barrier to communication in the occasion of their interacting with a non-fluent English-speaking ethnic minority.

A further objective of Tier 2 services is to provide information to patients meeting criteria for bariatric surgery, including information about Tiers 3 and 4. Attitudes of participating focus group participants towards bariatric surgery, though having no experience of the system except one participant, was generally negative. Focus group participants overwhelmingly cited the lack of information about bariatric surgery as the main contributor to their ignorance about this surgery, and many expressed an absence of dissemination of information from GPs and other HCPs. Other studies have similarly identified lack of tailored information being a contributor to the underrepresentation of ethnic minorities in the uptake of health interventions such as breast and cervical screening (Szczepura et al., 2005). Moreover, there also appeared to be considerable misinformation regarding bariatric surgery amongst those focus group participants who were familiar with it.

A literature review by Lucas et al., (2013) found that health information amongst South Asians was obtained primarily through word of mouth from healthcare professionals, peers and elders. As such, community leaders could be trained to work in partnership with healthcare professionals to propagate accurate information, which would ease the need for basic information having to be provided exclusively by over-stretched GPs. In addition, Ismail et al., (2013) suggested the importance of addressing fear-induced cognitive dissonance, which is when patients appear positive

about interventions, but are then unwilling to participate in them. The importance of talking through these cognitive and emotional barriers is important to alleviate fears that these individuals may hold in relation to bariatric surgery, hence bringing them to a place of consonance.

In addition, printed resources have been shown to be effective amongst this demographic. A systematic review which analysed interventions targeted at reducing the main causes of mortality in South Asians and Chinese found that the use of translated printed material was effective in conveying the intended information to these groups (Netto et al., 2010). The bariatric dieticians in the present research, who worked in Leicester, stated that printed material about the weight management Tier system is only available in English, despite South Asians constituting 37% of the city's population based on the 2011 census (Leicester City Council, 2012).

However, printed resources should be used with caution, due to data supporting low levels of health literacy amongst ethnic minority groups (Wallia et al., 2014; Moore et al., 2019). Studies have shown the preference of African American communities to receive health education in an oral format (Anderson-Loftin et al., 2002), which resonates with the African traditional concept of 'orality' and attaches significance to the gaining of information and its transmission through word of mouth and other non-verbal methods such as dance (Moore et al., 2019), similarly found in Morrison et al's., (2014) study. This was evidenced by the GP in the present research when discussing the requests received for bariatric surgery from her obese ethnic minority patients who had heard of the success of other patients from the same community via word of mouth. This further emphasizes the need for cultural awareness on the part of



HCPs, and the role of community liaison officers in the oral dissemination health information.

The difficulties experienced by ethnic minorities in accessing and fully utilising the weight management Tier system is further attributed to the inefficiency and ineffectiveness of the system itself. HCPs expressed difficulties caused by the rigidity of the current pathway, preventing users from accessing the Tier that is most beneficial to them at a particular time. They highlighted the unnecessary requirement for morbidly obese patients to begin at Tier 2, as weight loss, if at all achieved, was often times ineffective in improving health. The only focus group participant to have commenced on the weight management pathway with a view to undergoing bariatric surgery (owing to her BMI of  $>35\text{kg/m}^2$ ) discussed her experience with Tier 2 services, citing the inefficacy of the intervention after her inadvertent weight gain as a result of recommended changes to her diet, as well as an inconsistent follow-up structure.

A literature review of effective weight management services for adults in the UK found a lack of evidence supporting weight loss in severely obese individuals (BMI  $>35\text{kg/m}^2$ ) who had attended WMPs and suggested the referral of these patients directly to a Tier 3 specialist service (McCombie et al., 2012). Moreover, Welbourn et al., (2016) assert that patients that are eligible, suitable and wanting to have bariatric surgery should be directly referred on for surgical assessment without having to unnecessarily attend Tier 2 interventions, which increases chances of recidivism and weight regain.

The inconsistencies discussed by the bariatric dieticians in relation to Tier 2 and 3 services were captured in a large national survey involving all health boards in Scotland that sought to evaluate various elements of these Tier services including referral pathways, eligibility criteria and intervention format, and found that there were differences in all factors considered (Read & Logue, 2015). This highlights the critical need for a national appraisal of the weight management pathway, especially at Tiers 2 and 3. In addition, the bariatric dieticians participating in the current research reported that the use of NICE recommendations for a lower BMI threshold for South Asians within the Tier weight management pathway were not observed. This was consistent with Read & Logue's (2015) survey, which found that only 2 of the 9 participating health boards reported different eligibility criteria based on BMI for South Asians.

This is especially pertinent in areas such as Leicester, where both interviews with the bariatric dieticians and some of the focus groups were conducted. The city has the highest proportion of people of Indian heritage of any place in England or Wales, with South Asians constituting 37% of the city's population (Leicester City Council, 2012). Yet in contrast to the views expressed by the bariatric dieticians, the Oxford-based GP confirmed their compliance with these lower thresholds at GP level. There remains a dearth of published data evidencing whether these recommendations are being adhered to within the weight management tier system at a national level.

The bariatric dieticians cited the lack of implementation of these recommendations as stemming from management. With the current disjointed responsibility for funding of weight management at a central level as earlier discussed on pages 142-143, the lack of implementation of recommendations and standardization of aspects such as referral

pathways and eligibility criteria are likely to continue to the detriment of those needing it most, such as ethnic minorities. In addition, the lack of standardisation has subsequently led to variations in understanding and utilisation of the system by GPs at Tier 2 level, as communicated by the bariatric dieticians. This was also evident from the differences in experiences between the dieticians and the GP, functioning under different CCGs. As such, there appears to be a critical need for an overhaul of the weight management Tier system from the top down.

### **5.3 Strengths and Limitations - Focus Groups with Ethnic Minority Adults**

This appears to be the first study that has qualitatively examined the underrepresentation of ethnic minority adults in the weight management Tier system and ultimately, bariatric surgery, in the UK. There are currently no published data that have explored this phenomenon, which is the greatest strength of this MPhil research. The engagement of ethnic minorities in focus groups provided an environment that facilitated the natural expression of thoughts and feelings that would have been difficult to capture in a different setting. It also allowed for exploration of ideas conveyed by participants through groups discussions, which often times led to the generation of new themes. This was significant in elucidating the reasons behind the underrepresentation of ethnic minorities in the weight management Tier pathway and bariatric surgery.

A further substantial strength is that the data generated from this research have the potential to provide inferential generalizability or transferability. This type of generalizability would occur when results from a particular research can be adopted by a person/group from a different setting from that of the research setting (Smith, 2018). As previously discussed, ethnic minorities tend to be underrepresented in other

settings including clinical trials, screening programmes and comparative delays in undergoing knee or hip replacements. As such, many of the themes generated are unlikely to be exclusive to bariatric surgery and can potentially be generalised to these other areas of underrepresentation.

A limitation of the study with regards to ethnic minority adults was the inability to interview ethnic minority patients who have undergone bariatric surgery, with the intention to obtain primary information about their experiences throughout the weight management Tier pathway. This would have been extremely valuable in exploring any potential variations in treatment pre-, during- and post-operatively. Furthermore, these experiences would illuminate on the quality and quantity of information provided, and the overall satisfaction of these patients throughout the process.

Although originally planned as part of this MPhil research, this additional study could not be conducted due to personal circumstances in the researcher's life that truncated the amount of data that could be collected throughout the project. It is recommended that future research focus on the experiences of this population.

Research with ethnic minority groups has been previously described as challenging, with these communities described as 'hard to reach' (Sheikh et al., 2009; Hoppitt et al., 2012); this study was not an exception to this. Due to difficulties in recruiting members of these communities that met the initial criteria of having a BMI  $\leq 30$  kg/m<sup>2</sup> and being aged between 18 and 65, revisions to these criteria had to be made in order to reach the required sample size. The initial BMI cut point was set so that it matched the same criteria for the bariatric surgery population; hence the opportunity to discuss surgery with individuals that actually fit the criteria.

It is therefore a limitation that the criteria were changed to allow for recruitment of any adults who identified as belonging to the stipulated ethnic minority groups, irrespective of BMI or age. Despite this, data gathered from the focus groups proved to be insightful and useful. Hoppitt et al., (2012) discussed that a contributor to the difficulty in accessing these communities is a lack of involvement of community leaders and a lack of intentionality in building relationships with them. As was experienced in this study, when community leaders were approached at the outset and the rationale and details of the research provided, they often became a strong advocate for the study, encouraging members to participate. This enhanced recruitment into the study.

#### **5.4 Strengths and Limitations – Interviews with Healthcare Professionals**

Equally, the interviews with HCPs elucidated their experiences of the weight management Tier system and bariatric surgery in general, and specifically relative to their experiences with ethnic minorities. These interviews provided in-depth insights, which would similarly have been difficult to achieve in a different setting.

An additional strength lies in the variety of both the locations and professions of the HCPs. There were marked differences in the frequency and nature of interactions of the HCPs with ethnic minority adults. Similarly, differences in the CCG management of the Tier system were evident between the GP and the bariatric dieticians.

Moreover, it was incredibly beneficial to examine the process from Tier 2 and on to Tier 3, as represented by the GP who interacted with patients solely on a Tier 2 level and as the source of the referral, and represented by the bariatric dieticians further along the pathway at Tiers 2 and 3.

A substantial strength of the study with regards to the HCPs was the ethnic diversity of the geographical locations they were situated in. The evident underrepresentation of ethnic minorities in the weight management Tier system and bariatric surgery within the Leicestershire area authenticates the significant discrepancies in this pathway. This is unlikely to have been so clearly evidenced if these interviews had occurred in geographical areas that were less ethnically diverse.

A limitation of this research lies in the small sample of healthcare professionals interviewed. Where at the outset of the study the intention was to recruit 20 healthcare professionals along the weight management Tier system, personal occurrences in the researcher's life resulted in an inability to complete all the interviews as planned. As such, data saturation for interviews was unable to be reached incorporating the use of thematic analysis, hence the decision to employ case study research. However, the interviews that were successfully completed were immensely illuminating, hence sufficient to inform the study accordingly.

In addition, conducting these interviews with HCPs in multiple geographical locations would have provided further insights, as it was evident that trusts appeared to have varied criteria in place regarding Tier service referrals and how these were conducted, as well as application of lowered BMI thresholds for South Asians. In addition, it was planned to interview ethnic minority patients who have undergone bariatric surgery to obtain primary information about their experiences throughout the weight management Tier pathway. This would have been extremely valuable in analysing for any variations in treatment pre, during and post operatively. As stated previously, this was not achieved.

## **5.5 Implications for Policy and Practice – Focus Groups with Ethnic Minority**

### **Adults**

The findings from this research have significant implications for policy and practice. The discussion from the focus groups highlights the engagement in physical activity by these communities when these are offered through a GP or when costs are subsidised or minimal. With the barriers to physical activity amongst ethnic minorities being widely published, it is imperative that any avenue that boosts their engagement in physical activity is not only identified but encouraged. As such, long term subsidies for gym membership could be considered for these communities. In addition, the central role of community centres strongly emerged from focus groups discussions. Partnerships could be formed between community leaders and local authorities to facilitate sustained funding to train and certify ethnic minority exercise instructors, who in turn could deliver physical activity sessions within these centres, enhancing community participation and increasing levels of physical activity. This would equally enable single-sex exercise sessions/classes, hence further mitigate reluctance in physical activity participation due to the presence of the opposite sex.

There appears to be a need for nutritional support for these communities especially amongst females, where the expectation of post-partum weight gain was expressed by both African-Caribbean and Bangladeshi participants. This is consistent with other published literature (Lawton et al., 2008). These findings suggest the need for targeted and structured gestational and post-partum dietetic and physical activity information and interventions for these populations, which appears to be absent in published literature.

As already discussed, there is evidence for the positive reception and use of the DHAL, and potentially the HEAL-D, programmes that are structured to address these cultural core issues. Moreover, with the lack of information regarding bariatric surgery being widely cited by focus group participants, the absorption of such programmes into Tier 2 services and their widespread implementation is likely to be an effective tool for the promulgation of this information within these communities and could possibly lead to an increase in their uptake of bariatric surgery. Furthermore, based on sentiments from focus group participants, with similar findings from other studies (Sutcliffe et al., 2016), running these programmes over longer durations are likely to effect better results.

## **5.6 Implications for Policy and Practice – Interviews with Healthcare**

### **Professionals**

The implications for policy and practice following interviews with HCPs have highlighted several key points. Firstly, the weight management Tier pathway is likely to remain underused by ethnic minorities if cultural awareness is not mandated. With this being the legitimate referral channel for bariatric surgery, this population will continue to remain underrepresented. Cultural awareness is a multi-tiered approach, and if HCPs intend on increasing access to bariatric surgery within these populations, they must be intentional about addressing barriers such as language and health literacy, understanding cultural concepts of food and dietary choices, involving the wider family members and working with community leaders and representatives to engage these communities. Not only has this been identified as an avenue for addressing the lack of information that was cited by the focus groups participants, but it also fosters trust between key stakeholders within the community and the healthcare



service. In relation to this is the aforementioned necessity for a more effective cultural competency training strategy, to better equip HCPs in dealing with unconscious bias towards ethnic minorities and ultimately move closer towards narrowing the health gap between these communities and the general population.

Finally, the barriers within the Tier levels have resulted in the system's inefficiency, and the absence of a centralised funding body has led to independent working criteria as decided by different local authorities or CCGs. Moreover, national compliance with NICE recommended lower BMI thresholds for South Asians is imperative in increasing the numbers of ethnic minorities undertaking bariatric surgery. As already discussed, there remains a crucial need for the re-evaluation of the weight management Tier system, with key elements such as standardization of eligibility criteria and referral pathways re-defined and enforced.

### **5.7 Recommendations for Future Research**

Recommendations for future research stem from the limitations of this study. Where only a handful of healthcare professionals were interviewed in this study, undertaking research that is significantly more inclusive of other healthcare professionals within the weight management Tier system as well as the recruitment of a national sample, would not only provide a more accurate picture of the system, but capture in better detail and specificity where disparities and shortcomings lie. Future research with a wider scope is required to evaluate the weight management Tier system nationally. With existing evidence of a lack of standardization of the system, further research is required to identify aspects of variation from one commissioning group to another and reasons for this, so as to ultimately close these gaps.

There is a wide body of published qualitative research into ethnic minority groups in the UK, with many focusing on aspects of lifestyle such as diet and physical activity. However, with the divergent observations between published data and the focus group participants on the engagement in exercise, contemporary studies including large and representative sample sizes are needed to ascertain if this change in behaviour is represented across this group, as it is possible that an increased awareness of the importance of physical activity has occurred in recent years. Moreover, the variations in findings regarding levels of physical activity suggest the benefit of studies using tools to objectively measure physical activity, rather than the more common use of self-reported activity, to provide a more accurate assessment of the amount of activity that people are engaging in.

There is a paucity of the same examining these groups' experiences of interactions with the healthcare system and healthcare professionals, and the identification of problem areas. The evidence pointing to disparities in health outcomes between ethnic minorities and white Europeans is overwhelming; seeking out the voices of these disadvantaged groups is an important step towards achieving a more equitable outcome. As such, there is a critical need for mixed method research, with quantitative approaches measuring outcomes and qualitative studies incorporating focus groups and interviews with these demographics.

## 5.8 Conclusion

The analysis from this thesis has shown that ethnic minority adults feel excluded from accessing bariatric surgery in the UK through both visible and less visible barriers. Where GP interactions with ethnic minorities are compromised due to ethnicity or patients' low English literacy, this leads to a lack of information dissemination, which is likely to result in a lack of referrals. The weight management Tier service appears to be ineffective in its intended purpose. Where there is an absence of a seamless progression from Tier 2 services, especially from those that are culturally tailored for ethnic minorities, these communities will continue to be underrepresented in surgery. Finally, it appears that healthcare professionals are equally complicit in the underrepresentation of this demographic in bariatric surgery. The variation in the use of NICE recommended lower BMI thresholds by healthcare professionals means that South Asians in particular are not obtaining referrals to the Tier pathway when they actually qualify. In addition, where GPs are unaware of the service, referrals will subsequently not ensue.

It is hoped that further research will be conducted including larger samples of healthcare professionals and ethnic minority participants to explore and build upon the themes that have emerged from this MPhil research. Encouraging ethnic minorities who would benefit to access bariatric surgery requires addressing these obstacles from both community and healthcare system perspectives.

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COREQ (Consolidated criteria for Reporting Qualitative research) Checklist

Topic	Item No.	Guide Questions/Description	Reported on Pg No.
<b>Domain 1: Research team and reflexivity</b>			
<i>Personal characteristics</i>			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	63
Credentials	2	What were the researcher's credentials?	64
Occupation	3	What was their occupation at the time of the study?	64
Gender	4	Was the researcher male or female?	63
Experience and training	5	What experience or training did the researcher have?	64
<i>Relationship with participants</i>			
Relationship established	6	Was a relationship established prior to study commencement?	69
Participant knowledge of the interview	7	What did the participants know about the researcher? E.g., personal goals, reasons for doing the research	69
Interview characteristics	8	What characteristics were reported about the interviewer/facilitator? E.g., bias, assumptions, reasons and interests in the research topic	63-66
<b>Domain 2: Study design</b>			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? E.g., grounded theory, discourse analysis, ethnography, phenomenology, content analysis	41-49
<i>Participant selection</i>			
Sampling	10	How were participants selected? E.g., purposive, convenience, consecutive, snowball	68
Method of approach	11	How were participants approached? E.g., face-to-face, telephone, mail, email	69-70
Sample size	12	How many participants were in the study?	70-71
Non-participation	13	How many people refused to participate or dropped out? Reasons?	71
<i>Setting</i>			
Setting of data collection	14	Where was the data collected? E.g., home, clinic, workplace	70
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	72
Description of sample	16	What are the important characteristics of the sample? E.g., demographic data, date	70-72
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	No
Repeat interviews	18	Were repeat interviews carried out? If yes, how many?	No
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	70
Field notes	20	Were field notes made during and/or after the interview or focus group?	53
Duration	21	What was the duration of the interviews or focus group?	70
Data saturation	22	Was data saturation discussed?	70

Topic	Item No.	Guide Questions/Description	Reported on Pg No.
Transcripts returned	23	Were transcripts returned to participants for comment and/or correction?	No
<b>Domain 3: Analysis and findings</b>			
<i>Data analysis</i>			
Number of data coders	24	How many data coders coded the data?	54
Description of the coding tree	25	Did authors provide a description of the coding tree?	57-58
Derivation of themes	26	Were themes identified in advance or derived from the data?	55-56
Software	27	What software, if applicable, was used to manage the data?	N/A
Participant checking	28	Did participants provide feedback on the findings?	No
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? E.g., participant number	74-106
Data and findings consistent	30	Was there consistency between the data presented and the findings?	107-114
Clarity of major themes	31	Were major themes clearly presented in the findings?	74-115
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	No

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 - 357

## APPENDICES

### APPENDIX A

UNIVERSITY OF  
BIRMINGHAM



### RECRUITMENT ADVERTISEMENT

#### **Weight loss surgery in diverse communities**

Researchers from the **University of Birmingham** are looking for individuals from ethnically diverse backgrounds to participate in a study that can help us to understand why people who qualify for weight loss surgery may not choose the surgery as a treatment option.

##### ➤ **What will my participation involve?**

- taking part in a focus group with other participants.
- Sharing your experiences related to trying to lose weight, and your views on weight loss surgery as a treatment option.

##### ➤ **To participate you must:**

- Be over 18 years
- Describe yourself as being Afro-Caribbean, African, Indian, Pakistani or Bangladeshi
- Have a body mass index (BMI) of at least 27 kg/m<sup>2</sup> if you are Indian, Pakistani or Bangladeshi
- Have a BMI of at least 30 kg/m<sup>2</sup> if you are of African or Afro-Caribbean heritage

Would you be willing to help with this study? If you are, please contact:  
Sekesai Dachon : or email at .

## APPENDIX B

UNIVERSITY OF  
BIRMINGHAM



### INFORMATION SHEET

#### **The Determinants of the Uptake of Bariatric Surgery Amongst Morbidly Obese Ethnic Minority Adults**

You have been invited to take part in a research study. Before you decide whether or not participate, it is important that you understand why the research is conducted and what it will involve. Please take time to read the following information carefully.

#### **The Purpose of the study**

The study seeks to explore the reasons why individuals from ethnic minority groups are less likely to choose to undertake bariatric (weight loss) surgery as a treatment option for extreme obesity than White British individuals.

#### **Why have we asked you to participate?**

We believe that you may be able to shed light on some cultural attitudes and perceptions of weight loss surgery, as well as sharing any experiences you may have had with your GP or other healthcare practitioner about qualifying for the surgery. Listening to your views will help us to understand why fewer people from ethnic minority groups are being referred for weight loss surgery.

#### **Inclusion Criteria**

In order for you to take part in the study, you must meet the following criteria:

- You are between the ages of 18-65 years
- You describe yourself as being Afro-Caribbean, African, Indian, Bangladeshi or Pakistani
- You have self-reported a height and weight value indicating that your Body Mass Index (BMI) is at least 27 kg/m<sup>2</sup> (if you are Indian, Bangladeshi or Pakistani) or at least 30 kg/m<sup>2</sup> (if you are African/Afro-Caribbean).

- You have identified yourself as being fluent in English.

### **What will we ask you to do?**

We will identify a suitable day and time that is convenient for you to come to either the University of Birmingham or to a local community centre for participation in a focus group discussion. During the focus group discussion, you will meet other individuals who also meet the inclusion criteria. Prior to engaging in the focus group discussion, you will be asked to provide written informed consent, and will complete a demographic questionnaire that asks for basic information about yourself, such as: date of birth, height, weight, marital status, ethnicity and highest educational qualification.

We will then carry out focus groups discussions, with the researcher asking questions around attitudes, understanding and perceptions about weight loss surgery, as well as any experiences you may have had with your GP or other health professionals about weight loss surgery or other treatments to lose weight. The focus group session will typically last from 90 minutes to 2 hours. Refreshments will be provided at the focus group.

### **Who is organising the study?**

Sekesai Dachi, a doctoral research student at the University of Birmingham in the School of Sport, Exercise and Rehabilitation Sciences, will carry out the research. Her supervisors are Professor Janice L Thompson and Professor Peymane Adab. The study is due to be completed by June 2018, and the results from the focus groups will be part of a PhD thesis.

### **Do I have to take part?**

Your participation in this study is entirely voluntary. You do not have to answer any questions during the focus group that you do not feel comfortable answering. You will be asked to sign a consent form by the researcher upon arrival, before the start of the focus group session. If you sign the consent form but later decide against participating, you are free to withdraw from the study at any time and without providing an explanation. If you take part in the focus group but decide to withdraw afterwards, the information you reported about yourself on the demographic questionnaire will be excluded from the analysis. However, you must inform us of this decision no later than two weeks following your participation in the focus group session. Because we cannot identify you from your voice during the focus group sessions, any information you share will not be linked with you but may still be included in our findings.

**How will we maintain your privacy and confidentiality?**

The information you provide us with will be anonymised. This means that no one else except yourself and the researcher would be able to identify you based on the information you have provided. You will be given a numeric identification code, and any direct quotes stated by yourself and used within publications or reports will be anonymised with a pseudonym (or a false name) to protect your identity.

Questionnaires will be stored in a locked cabinet in a locked room at the University of Birmingham, and voice recordings will be stored in a locked room and will be destroyed as soon as they are transcribed. All transcripts obtained during the focus groups will be stored on a password-protected computer. Only the study researcher and her supervisors will have access to the data.

The information that you provide will only be disclosed to other persons if there is a legal requirement to do so. For example, if you share information that leads the researcher to be concerned about your (or another person's) safety, they are obliged by law to disclose this information to the relevant authority.

**What are the possible risks of the study?**

Whereas we do not anticipate any risks to you participating in this study, we are aware that some questions may cause some distress due the nature of the subject. If you feel upset by these questions, you can choose not to share any information; or if necessary, you may leave the room where the focus group session is being conducted for as long as you need to.

**How will I benefit from taking part in the study?**

There is no immediate benefit to you for taking part in this study. You will be sent a concise summary of the findings from the research. We will send this by post or email, according to your preference. You will also receive reimbursement for your travel costs to/from the focus group session, and refreshments will be provided at the focus group sessions.

**What will be the outcome of the results from the research?**



The results obtained from this research will be part of a PhD thesis. Findings from this research may also be published in academic journals during or following completion of the study.

**Contact information:**

Please contact us if you have any questions or concerns regarding the study: ~~Sekesai Dachi on~~ or You may also contact the supervisors on the project: Professor Janice L Thompson, or Prof ~~Peymane Adab~~.

**If you have any formal complaints about this research, please contact the Head of Research in the School of Sport, Exercise and Rehabilitation Sciences, Professor Brett Smith: [SmithBS@adf.bham.ac.uk](mailto:SmithBS@adf.bham.ac.uk)**

**If you have any concerns about your weight and are interested in getting some support, below is a list local sources for weight management/support:**

- Your local General Practitioner Surgery
- The free NHS weight loss plan: <http://www.nhs.uk/Livewell/weight-loss-guide/Pages/losing-weight-getting-started.aspx>
- Weight Watchers: Online sessions and meetings near you can be found at this link - <https://www.weightwatchers.com/uk/weight-loss-plans?>
- Slimming World: Online sessions and meetings near you can be found at this link - <http://www.slimmingworld.co.uk/>

**THANK YOU FOR TAKING THE TIME TO READ THIS PARTICIPANT INFORMATION SHEET**

**APPENDIX C**

**UNIVERSITY OF  
BIRMINGHAM**



**School of Sport and Exercise Sciences  
The University of Birmingham  
Birmingham  
B15 2TT**

**Tel:**

**PARTICIPANT CONSENT FORM  
The Determinants of the Uptake of Bariatric Surgery Amongst  
Morbidly Obese Ethnic Minority Adults**

*Please read the statements below and initial in the corresponding boxes if you agree*

I confirm that I have read the information related to the above study,  
have had the opportunity to consider the information and ask questions  
which were answered to my satisfaction

I understand that my participation in the study is voluntary and that I am  
free to withdraw at any time, without giving a reason; but that I must  
inform the researchers of this decision no more than two weeks following  
my participation in the focus group interview

I understand that the focus group interviews will be audio-recorded

I understand that these interviews will be transcribed and used to inform  
a PhD thesis and will be used in reports and papers submitted to academic  
journals; I also understand that direct quotes may be used in publications  
with the use of a pseudonym (false name) to protect my identity

I understand that my information will be treated as strictly confidential  
and handled in accordance with the provisions of the Data Protection Act

**I agree to take part in the above study**

.....  
Name of participant

.....  
Date

.....  
Signature

.....  
Name of researcher

.....  
Date

.....  
Signature

## APPENDIX D

UNIVERSITY OF  
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### PARTICIPANT DEMOGRAPHIC QUESTIONNAIRE

Personal Information		
Last Name	Forename(s)	Date of Birth
Address		
<b>Post Code:</b>	<b>Email Address:</b>	
Marital Status		
Single (never married)	<input type="checkbox"/>	
Married	<input type="checkbox"/>	
Separated	<input type="checkbox"/>	
Divorced	<input type="checkbox"/>	
Widowed	<input type="checkbox"/>	
Cohabitees	<input type="checkbox"/>	
<b>Born in the UK</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<b>If No, Country of Birth</b> _____		
<b>Number of years living in the UK</b> _____		
Ethnic Origin		
<i>Asian or Asian British</i>		
Bangladeshi	<input type="checkbox"/>	
Indian	<input type="checkbox"/>	
Pakistani	<input type="checkbox"/>	
<i>Black or Black British</i>		
African	<input type="checkbox"/>	

Caribbean	<input type="checkbox"/>
<b>Faith/Religion</b>	
Buddhist	<input type="checkbox"/>
Christian	<input type="checkbox"/>
Hindu	<input type="checkbox"/>
Jew	<input type="checkbox"/>
Muslim	<input type="checkbox"/>
Sikh	<input type="checkbox"/>
No religion	<input type="checkbox"/>
Other (please state) _____	
<b>Employment Status</b>	
Working full time	<input type="checkbox"/>
Working part time	<input type="checkbox"/>
Not working and not looking for work	<input type="checkbox"/>
Unemployed and looking for work	<input type="checkbox"/>
Disabled or retired and not looking for work	<input type="checkbox"/>
<b>Household Type</b>	
Number of adults living in the house aged 18-65 _____	
<b>Highest Educational Qualification</b>	
NVQ4/NVQ5/Degree or equivalent	<input type="checkbox"/>
Higher education below degree	<input type="checkbox"/>
NVQ3/GCE A Level equivalent	<input type="checkbox"/>
NVQ2/GCE O Level equivalent	<input type="checkbox"/>
NVQ1/CSE other grade equivalent	<input type="checkbox"/>
Foreign/other	<input type="checkbox"/>
No qualification	<input type="checkbox"/>
<b>Have you or anyone in your family been diagnosed with (please check all that apply):</b>	

<b>You</b>		<b>Your Family</b>	
Type 2 diabetes	<input type="checkbox"/>	Type 2 diabetes	<input type="checkbox"/>
High blood pressure	<input type="checkbox"/>	High blood pressure	<input type="checkbox"/>
Heart disease	<input type="checkbox"/>	Heart disease	<input type="checkbox"/>
Polycystic ovary disease	<input type="checkbox"/>	Polycystic ovary disease	<input type="checkbox"/>
Sleep apnoea	<input type="checkbox"/>	Sleep apnoea	<input type="checkbox"/>
Depression	<input type="checkbox"/>	<u>Depression</u>	<input type="checkbox"/>
Asthma	<input type="checkbox"/>	<u>Asthma</u>	<input type="checkbox"/>
Liver disease	<input type="checkbox"/>	Liver disease	<input type="checkbox"/>
Gastro-oesophageal reflux	<input type="checkbox"/>	Gastro-oesophageal reflux	<input type="checkbox"/>
<b>Do you have family members concerned about their weight? (please check all that apply):</b>			
Mother		<input type="checkbox"/>	
Father		<input type="checkbox"/>	
Sister/Brother		<input type="checkbox"/>	
Grandparents		<input type="checkbox"/>	
Aunt/Uncle		<input type="checkbox"/>	
<b>What weight loss interventions have you tried:</b>			
Any physical activity and dietary programme organised by the council/GP		<input type="checkbox"/>	
Physical activity and dietary changes implemented by you		<input type="checkbox"/>	
Medicinal intervention		<input type="checkbox"/>	
Food supplement		<input type="checkbox"/>	
Meal replacement		<input type="checkbox"/>	
Other (please state) _____			
<b>How supportive has GP been with regards to your weight loss attempts:</b>			
Extremely supportive		<input type="checkbox"/>	
Very supportive		<input type="checkbox"/>	
Somewhat supportive		<input type="checkbox"/>	
Not really supportive		<input type="checkbox"/>	
Definitely not supportive		<input type="checkbox"/>	
Haven't spoken to my GP about weight loss		<input type="checkbox"/>	

## APPENDIX E

UNIVERSITY OF  
BIRMINGHAM



### FOCUS GROUP INTERVIEW SCHEDULE

#### Objectives:

- To explore participants' understanding of bariatric surgery
- To analyse participants' attitudes towards bariatric surgery
- To examine participants' experience of the bariatric surgery journey
- To understand participants' interaction with their GP in relation to weight loss

#### Before commencing with the interview:

- Begin by welcoming each individual as they come through the door, and point them to the refreshments table where they can refresh themselves at any point during the session
- When all participants have arrived and are seated, thank them for their willingness to participate. Encourage them to ask questions at any point during the session
- Give each participant a consent form, and ask them to read through and sign if they are happy to proceed with the study
- Upon signing of the consent forms, proceed to then give each participant a demographic questionnaire, and give them time to complete. Answer any questions that may arise from this exercise
- Reiterate that all information disclosed during focus groups MUST be maintained as strictly confidential, with no further discussion taking place outside the room
- Reassure participants that they can opt not to answer questions should they wish not to, without providing an explanation. Similarly, they can leave the group at any time should they wish
- Upon completion, commence with the focus group session

*Icebreaker: Invite the participants to share their names and one interesting fact about themselves.*

*Topics to be explored/Questions posed:*

1. Understanding of weight loss surgery
  - What do you know about weight loss surgery?
  - What do you think weight loss surgery seeks to do?
2. GP interaction in relation to weight loss
  - Has your GP ever mentioned to you the need to lose weight?
  - If so, who initially brought up the conversation?
  - If so, has any weight loss intervention ever been suggested to you?
  - Do you feel supported by your GP in your weight loss attempts (assuming you have tried to lose weight)?
  - If there was anything you could tell your GP about your whole experience in relation to weight, what would it be?
3. Attitudes towards weight loss surgery
  - Have you ever considered having weight loss surgery?
  - If not, why?
  - If so, why?
  - Has anyone of your family or friends had weight loss surgery?
  - Has your GP ever talked with you about weight loss surgery?
4. Are you aware that most weight loss surgeries done in the UK are with people of white British heritage?
  - a. Why do you think this might be?
  - b. Can you think of any reasons why ethnic minority adults who qualify for weight loss surgery are not getting it?
5. Conclusion
  - Is there anything else you would like to add?