AN EXPLORATION OF HEALTH AND ILLNESS BELIEFS OF GHANAIAN MIGRANTS.

by

LAILAH ALIDU

A thesis submitted to the University of Birmingham

for the degree of DOCTOR OF PHILOSOPHY

School of Psychology

College of Life and Environmental Sciences

University of Birmingham

February 2017

ABSTRACT

Migration to high income countries (such as the UK) has been found to be associated with declining health. The overall aim of the thesis was to advance our knowledge and understanding about migration, health beliefs and behaviours of Ghanaian migrants living in the UK. The thesis employed two approaches: a systematic review and qualitative methodology utilising interviews with a total of 62 participants. The systematic review explored associations between acculturation and body weight in migrants, examining the role of health behaviours. The two qualitative studies, which yielded two datasets, focused on the experiences of Ghanaian migrants living in the UK and also included Indian migrants and White British and Ghanaian home populations as comparative samples. Findings from the systematic review suggested that migrants may be prone to developing obesity, however factors such as socioeconomic status influences this risk. The review also showed that behaviours and beliefs relating to health may be influenced by culture. From the qualitative studies there were three themes that cut across the findings of this thesis: (i) migrant's knowledge of their environment and how it affects healthy behaviours, (ii) the lay meaning of health, which is embedded in the migrant's culture and (iii) social/cultural influences on engagement with healthy behaviours. This thesis provides a starting point in understanding the lay meaning of health that can affect the engagement of healthy behaviours. Different cultures have exhibited different health belief systems and knowledge of these differences is important in the design of effective interventions that will be acceptable to patients of different cultural backgrounds.

ACKNOWLEDGEMENTS

For My Grandmother

You will always be my star

TABLE OF CONTENTS

CHAPTER 4 CULTURAL AND GENDER DIFFERENCES IN BELIEFS ABOUT HEALTH: A COMPARATIVE QUALITATIVE STUDY WITH GHANAIAN AND INDIANMIGRANTS AND WHITE BRITISH PARTICIPANTS LIVING IN THE UNITED KINGDOM

CHAPTER 5 ILLNESS PERCEPTIONS AND HEALTH-RELATED HELP SEEKING IN OLDER MEN: A QUALITATIVE STUDY OF GHANAIAN MEN IN LONDON AND KUMASI

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

GENERAL INTRODUCTION

Introduction

In this chapter I will highlight the focus of this thesis. I will begin by presenting an overview of Ghanaians in the United Kingdom (UK), review concepts in migration and health to help understand the influence of migration on health. I will further explain behavioural models that might help explain changes in migrant health, give an overview of Ghana as a country and its health care systems. Finally I will highlight the aims of the thesis and structure of the thesis.

Research focus

This thesis presents findings from a systematic review on acculturation and its impact on body weight: looking at the role of health behaviours, a qualitative exploration of cross cultural and gender differences on beliefs and behaviours about health and influences on migrant health. The population used in this study included Indian, Ghanaian migrants as well as the white British. The final study was an exploration of illness perception and help seeking in older Ghanaian men. This study used a sample of Ghanaian men in London and Ghana.

Ghanaians in the United Kingdom

The United Kingdom is one of the major destinations for international migration (IOM, 2011). Between 1993 and 2011, the foreign-born population in the UK almost doubled from 3.8 million to around 7.0 million (ONS, 2013). Over half a million people migrated to the UK in the year ending June 2013 and an estimated 48% of immigrants in the UK are non-EU

nationals. Immigrants from India form the largest migrant group, with people migrating from Poland, Pakistan, Ireland and Germany consecutively (Rienzo & Vargas-Silva, 2012). Migrants from Ghana make up the 27th largest group (ONS, 2013). According to the 2011 census data, there were over 95,000 Ghanaian born migrants living in the UK compared to only 56,112 in the 2001 census. Ghanaians comprise one of the largest West African communities in the UK (Herbert et al., 2006) and the majority reside in urban areas such as London, Manchester, Liverpool, Southampton, Birmingham, Glasgow, Cardiff and Swansea (Peil, 1995). Migration from Ghana to the UK before the 1960s was mostly for educational purposes; history tells it that Asante Kings gave their children to the slave masters to be educated in the UK. These migrants customarily returned until after the 1960's when the country was plunged into political and economic hardships. Consequently, most migrants who had been in the UK then decided to stay, whilst others moved from Ghana to settle in other parts of the world including the UK (Anarfi, Awusabo-Asare, & Nuamah, 2000; Herbert et al., 2006). There was an increase in the numbers of people migrating, because migration served as a coping strategy for families to survive the economic problems through remittances (Alderman, 1994). The high flow of Ghanaian migrants went to neighbouring countries with Nigeria receiving the largest numbers of Ghanaian migrants but in the 1980s Ghanaians were expelled from Nigeria, which made Ghanaian migrants target other destinations like the UK, Germany, Canada and the Netherlands (Anarfi, Kwankye, Ababio, & Tiemoko, 2003). Recent Ghanaian migrants in the UK are students and those who come for economic reasons (improve livelihoods) (Anarfi et al., 2003).

Concepts in Migration and Health

Migration theories

Migration theories have been developed to explain why and how people move from place to place. The oldest amongst them was propounded by Ernest George Ravenstein in 1885 (Ravenstein, 1885). He attempted to explain both internal and international migration from census data in the UK. He postulated basic laws from his findings and these have been the basis of most migration theories. According to Grigg (1977) Ravenstein's laws of migration were; migration involved short distance, migration as a step by step process and females are more likely to migrate. He went further to say that each migration current produces a counter current. He also stated that migrants are mostly adults who were single because families were unlikely to migrate, whereas urban dwellers were less likely to migrate compared to rural dwellers. Further, he asserted that migration accounted for growth of larger towns and that people who migrate longer distances go to places with commerce and industry. Thus, migration increases as trade and industries grow with enhancement in the transportation system. The lastly, the main direction of migration was from agrarian areas to industrial and commercial centres. People were motivated to migrate because of economic reasons.

Ravenstein's Laws of migration forms the basis of all migration theories but has been critiqued and enhanced. His laws were based on census data in the UK in the 1880's and reflected the situation and population dynamics of the UK at that time. One of Ravenstein's Laws that have evolved over the years is the basis that people move towards places of absorption (Corbett, 1885). Absorption meant places that served as destination points for migrants while dispersion areas were the sending countries (Czaika & Haas, 2014; Lee, 1966). Likely characteristics of the countries of absorption were a higher number of

industries and commerce, while the countries of dispersion were mainly agriculture based. Ravenstein's Laws were later developed into the Push pull factors (Lee, 1966).

Push pull factors have been widely used to explain why people migrate. One of the major proponents of the push and pull factors is Everett Lee. Lee (1966) stated that Push pull factors in migration could explain why people migrate as a result of factors that may push or pull them. He further explained that migration decisions depend on the characteristics of the origin and destination, factors that are normally considered for migration. Push factors such as unemployment, lack of safety, lack of services, poverty, famine and war are likely to make people move from their place of origin. Pull factors attract people to settle in a place (destination), such factors are normally the opposite of the push factors such as availability of employment, safer environment, availability and quality services, fertile lands, political security and wealth. These factors have been subsequently grouped into economic, social, physical and political push pull factors with the concepts of absorption and dispersion as underlying principles. In the 1960's in Ghana, migration to the UK increased because of political unrest and its adverse effect on the economy (Anarfi et al., 2003).

Some theories also explain the characteristics of the people who are likely to migrate. One such theory is the New Economies of Labour Migration Theory by Stark and Bloom (1985), which suggests that migration is a household selective process; Members that are capable (physical and mentally fit) are likely to be selected, such members are likely to be chosen to embark on the process of migration because they are more likely to bring more resources back for the household economic gain. Historically, migration encourages development; migrants have contributed to innovations, poverty alleviation in both countries of origin and host (Goldin, Cameron, & Balarajan, 2012). This however has fuelled the drive and the need for people to migrate. The main drivers of international migration are to become financially

greater (financial security, better jobs, higher salaries, gain good education from well

recognized institutions) and a better life (Carballo, Divino, & Zeric, 1998). Generally

migration compels people to adjust to a new environment, which has positive and negative

effects. Sam and Berry (2006) describes two consequences of migrating, either individuals or

groups acculturate or there is a development of a multicultural society. This process of

adaptation could affect the engagement of healthy behaviours, which may affect the health of

the person positively or negatively (Abraído-Lanza, Armbrister, Flórez, & Aguirre, 2006).

Acculturation

The resurgence of international migration to the UK has brought about interest in the effects

of acculturation on the health and health behaviours of migrants. *Acculturation is explained*

as the psychological, behavioural, and attitudinal changes that occur when individuals and

groups from different cultures come into continuous contact with each other, when

individuals adopt attitudes, values, customs, beliefs, and behaviours of another culture

(Cabassa, 2003). Crespo, Smit, Carter-Pokras, and Andersen (2001) also described

acculturation as the merging of cultures as a result of prolonged contact. Cruz, Padilla, and

Agustin (2000) described acculturation as a bidirectional process: the acquisition,

maintenance and elimination of some parts of the old and new culture. Quantitative research

has measured acculturation in different ways. Some studies measure acculturation using an

acculturation scale, capturing different aspects of culture, such as language or food. Others

use single variables that are known as proxy or surrogate measures such as the individual

component of culture (language) and nativity, length of residence in the host country.

Language as a proxy measure is widely measured by the individual's preference, level of

fluency and language that is normally used in thinking. Proxy measures however do not

capture acculturation in totality (Delavari, Sønderlund, Swinburn, Mellor, & Renzaho, 2013), just an aspect of it, in effect, using a proxy measure could be misleading.

Acculturation scales could either be Unidimensional or Bidimensional. The Unidimensional Model (UDM) describes the process of acculturation whereby migrants gradually lose their old culture and take on a new culture (Gans, 1979; Gordon, 1964; Park, 1928). As individuals move toward the dominant culture, they lose aspects of their original culture. Acculturation has been measured by language, cultural values, beliefs and behaviour systems, cultural knowledge, ethnic identification, and generational status (Cuellar, Nyberg, Maldonado, & Roberts, 1997; Marín & Gamba, 1996). Unidimensional assessments (e.g., nativity, length of stay, and language use) provide constricted measures of acculturation. Unidimensional acculturation measures fail to capture how individuals balance both cultural domains (the old and new culture) as they go through the process of acculturation (Cabassa, 2003). A Unilinear/unidirectional acculturation model prevents a more comprehensive understanding of the association between specific components of acculturation and particular health outcomes (Abraído-Lanza et al., 2006). From the identification of these inherent limitations, researchers postulated a Bidimensional model of acculturation, acknowledging the fact that migrants do not totally lose their identity, but still maintain some of the culture from their country of origin.

However, an acculturation model postulated in the 1980s seems to capture all the dimensions of the two approaches. Berry's (1980) acculturation model outlined strategies that individuals and groups use in an encounter with a new culture (figure 1). He further described that acculturation would lead an individual to one of the four strategies (integration, assimilation, separation and marginalisation) as a result of interaction with the host community. Most ethnic minority groups would leave their culture gradually and

primarily soak themselves up in the dominant culture thereby developing a higher interest for the other culture (assimilation). Separation was described as when people hold on to their own culture and fail to pick up anything from their new culture. Marginalization is the when individuals neither maintain their culture nor the culture of their destination. Integration is when an individual maintains his or her culture but still participates in the other culture.

Berry continued to develop his model of acculturation as a universalist approach (Sam & Berry, 2010). This approach showed the commonalities in the process of acculturation as a result of a psychological process which results in human behaviour where human behaviour is based on cultural factors, which affect every step of the psychological process (Sam & Berry, 2010). Cultures change when they come into contact with another culture; acculturation is a two-way interaction, resulting in actions and reactions to the contact situation (Sam & Berry, 2010).

All these acculturation theories assume a universalist approach, the assumption that all cultures go through the same psychological process. Berry's (1980) theory suggests that even though there are variations in circumstances of cultural groups, the psychological processes are similar within different groups. In using such models one should be careful because it does not capture the experiences of migrants: be it political, social and historical factors that affect migrant experiences (Ngo, 2008).

		Dimension 1: Should cultural identity and characteristics be maintained?	
Dimension 2:		**Yes**	**No**
Should	**Yes**	Integration	Assimilation
relationships with	**No**	Separation	Marginalization
other groups be			
maintained?			

Figure 1.1 Berry's Acculturation Model (Berry, 1980)

All these acculturation theories assume a universalist approach, the assumption that all cultures go through the same psychological process. Berry's (1980) theory suggests that even though there are variations in circumstances of cultural groups, the psychological process are similar within different groups. A critique of this model is that it does not capture the experiences of migrants: be it political, social and historical factors that affect migrant experiences (Ngo, 2008). Another school of thought on acculturation is the Interactive Acculturation Model. Bourhis, Moise, Perreault, and Senecal (1997) were proponents. This model sought to modify Berry's model. Their framework is based on three factors: (1) acculturation orientations adopted by immigrant groups, (2) acculturation orientations adopted by the dominant culture towards specific groups of immigrants, (3) interpersonal and intergroup relational outcomes that represent combinations of immigrants' and the dominant culture's acculturation orientations. The Interactive Model sought to explain the interactive nature of both the migrants' and the host population's culture, which the

unidimensional and bi dimensional nature sought to explain but they rather focus on how migrants assimilate into the host countries' culture (Ngo, 2008).

This process of acquiring, maintaining and eliminating some of or all of the new and old culture can influence health behaviours and health of migrants. This thesis explored health and illness beliefs and as such acculturation is viewed from the perspective of the sending and receiving cultures. It's positioned in the context of integration suggesting that there is an introduction or influence of new beliefs and behaviours in the host country. Culturally attributed human behaviours such as dietary patterns are dynamic and may easily changed or altered as a result of migration (Carballo et al., 1998). To encourage and promote healthy living and health of migrants especially from developing countries, positive health promoting aspects of the old and new culture should be promoted, thereby encouraging integration.

Healthy migrant effect

Several theories have been used to explain the health of migrants. One of such theories is the Sick Immigrant Paradigm. The Sick Immigrant Paradigm generated in the 20th century, stated that the least healthy people are likely to leave their home countries and introduce new diseases to the new environment (Beiser, 2005). This is thought to have arisen because European travellers carried communicable diseases such as measles, chicken pox, syphilis into Canada between the 16th and 17th century and as such, public health laws were tightened to assess the health of migrants before entering Canada (Beiser, 2005). These laws made were to reject applications of potential migrants that were a threat to public health and safety.

Another theory to explain the health of migrants is the Healthy Migrant Effect. The Healthy Migrant Effect postulates that migrants from their home countries are of good health but

upon arrival and exposure to the host country over a period of time there is a decline in their

health (Blair & Schneeberg, 2014). Why do we say migrants are of good health? First and

foremost, the process of migration is self-selective, people who are healthy are the ones that

conceive the idea to migrate because the process is physically and mentally demanding

which favours the healthy person (Boyle & Norman, 2009). Secondly, the actual process of

migration selects the healthy individuals, due to required health checks one would have to

pass before he/she can migrate (Norman, Boyle, & Rees, 2005). Therefore migrants, upon

arrival, have good health when compared to the general population. Beiser (2005) explains

the healthy migrant effect with two premises: (i) the convergence premise which refers to

when migrants gradually pick up the lifestyle of the average host population, the shift in

lifestyle pattern results in similar mortality and morbidity rates of the host population, (ii) the

resettlement stress premise which explains the stresses associated in the process of resettling.

This could be passive, just like immigrants and host population's exposure to the same

environment like pollution. It could also be active such as adopting behaviours of host

populations, such as smoking and consumption of unhealthy foods (Frisbie, Cho, &

Hummer, 2001; Hazuda, Haffner, Stern, & Eifler, 1988).

 However, decline in migrant health could also be explained by the Nutritional Transition

Paradigm (Grigg, 1995; Popkin, 2011). Nutritional transition is when the usual diets of

people are replaced with high calorie diets (high levels of fat sugars and saturated fat)

(Shetty, 2013). Current studies have shown that rising levels of obesity could be attributed to

worsening diets and lower levels of physical activity (Popkin, Adair, & Ng, 2012). This

trend has been observed in migrants from developing countries to the developed world. A

study of immigrants in Canada found that nutritional transition was due to inadequate

knowledge of nutritional values on packages, availability and affordability of their traditional

foods. It also found that immigrants of low socio economic status were likely to have a poor diet (Sanou et al., 2014). This study suggested that a change in nutrition of migrants was due to lack of knowledge on available foods (in the host countries) and also higher cost of their already known traditional foods thereby a higher consumption of cheaper unhealthier options. Research also suggest that most migrants in developed countries come from a more agrarian lifestyle to a more sedentary lifestyle (low levels of physical activity and increased consumption of unhealthy diet (Delavari, Sønderlund, et al., 2013; Holmboe-Ottesen & Wandel, 2012; Råberg, Kumar, Holmboe-Ottesen, & Wandel, 2010). Migration changes the eating patterns of people (the foods eaten, how it's made and number of meals taken in a day), thereby substituting old nutritional patterns to new ones (Carballo et al., 1998).

Even though studies confirm the decline of migrant health over time, some studies show that this might not be true for all migrant groups. A study done in Canada showed that black women were found to be more overweight than their white counterparts regardless of the duration of residence (Statistics Canada, 2005). A study by Delavari, Farrelly, Renzaho, Mellor, and Swinburn (2013) in Australia, found that people from China, Philippines, Malaysia and Vietman have lower Body Mass Index (BMI) compared to people from Germany, Poland, Italy who were overweight.

According to Boyle & Norman (2009), immigrant's health decline is due to stress that related to the migration process, the lack of health insurance and access to health care services. In the UK where access to health care is free at the point of delivery (Delamothe, 2008), issues about health could be the cost of prescription for medication and knowledge of health services. The process of acculturation presents numerous challenges and life changes that could potentially benefit or adversely affect the health of immigrants (Abraído-Lanza et al., 2006). For example patterns of alcohol abuse, tobacco use, eating disorders, and

unhealthy dietary practices are stronger among Mexican Americans who are more

acculturated than among those less acculturated (Acevedo, 2000).

Health Behaviours

Health behaviour, is defined as "an activity undertaken by a person believing himself to be

healthy, for the purpose of preventing disease or detecting it at an asymptomatic stage"

(Kasl and Cobb, 1966, p246). Gochman (2013) explains health behaviour as an act that

maintains, restores and improves one's health. Lifestyle related illnesses leading to higher

mortality and morbidity rates could be attributed to an individual's behaviour and this could

be modified to improve upon one's health (WHO, 2002) . Health behaviours include eating

behaviour, physical activity behaviours, sexual behaviours (Ogden, 2012). Undertaking and

maintaining healthy behaviours in these activities are very important because it delays the

onset of diseases and increases the life expectancy; overall it improves the quality of life of

humans (Ogden, 2012). Models of health have been developed to describe and help predict

why and under what circumstances people perform health behaviours. Models such as the

Health Belief Model, Theory of Planned Behaviour, Social Cognition Theory and the Socio

Ecological Models will be addressed in the subsequent paragraphs.

The Health Belief Model (HBM) (Becker, 1974) explains health-behaviour in terms of

individual decision-making, and proposes that the likelihood of a person adopting a given

health related behaviour is a function of that individual's perception of a threat to their

personal health, and their belief that the recommended behaviour will reduce this threat. The

HBM assumes that an individual will engage and successfully implement a healthy

behaviour if he/she knows that an illness could be prevented. The HBM was initially

developed to encourage healthcare utilization and engaging in preventative measures (Rosenstock, Strecher, & Becker, 1988). The HBM describes behaviour as a result of a person's perception of the severity and susceptibility of an illness and also the barriers and benefits involved in performing that behaviour (Becker, 1974). The main components of the HBM are perceived susceptibility, perceived severity, perceived benefits, perceived barriers and cues to action: these were considered before a person engaged in health behaviour. Self-efficacy as a construct was later added to explain behaviours such as smoking and overeating (Rosenstock et al., 1988). The HBM has served as the basis of other models designed to explain health behaviours.

The Theory of Planned Behaviour (TPB) (Ajzen, 1991) , which was developed from the Theory of Reasoned Action (Sheppard, Hartwick, & Warshaw, 1988), holds that only specific attitudes toward the behaviour in question can be expected to predict that behaviour. Perceived behavioural control was added to TPB because it was found that behaviour could be deliberate or planned (Sheppard et al., 1988). The core premise of TPB is intentions: intention predicts behaviour. One's intentions are influenced by one's attitude towards the behaviour, subjective norms and perceived behavioural control. This theory has been applied to health messages or adverts and some evaluation studies (Emanuel, McCully, Gallagher, & Updegraff, 2012; Thomas, 2001; White et al., 2012). The theory however, does not highlight obstacles that can prevent people from performing behaviour (such as interaction with the environment) even though they might intend to perform behaviour. TPB has been used to explain health behaviour and to predict future intentions but not actual behaviour (White et al., 2012). Even though beliefs are central in the engagement of healthy behaviours, it is not always as a result of their beliefs (knowledge) but external factors account for a person's engagement in healthy behaviour (new environment, financial, availability).

Social Cognition Theory (SCT) (Bandura, 1998) examines factors or influences on performing a health behaviour, unlike the other models, the SCT include social and environmental factors to explain behaviour. It explains why people fail to maintain a behaviour to which they are committed. Human behaviour is as a result of the interplay of personal, behavioural and environmental factors. Humans are seen to learn and adapt through observing, imitating and modelling (Rosenstock et al., 1988). SCT explains human behaviour in terms of cognitive, behavioural and environmental influences. Bandura (2002) posits that observational learning does not lead to a change in behaviour unless the current environment in which the individual finds himself/herself allows for the change. Bandura identified ways in which the environment could change behaviour; examples of such ways are through facilitation and motivation. He further explained that people are actors and also products of the environment, which means the availability of resources and structures influences health behaviours. The SCT is based on social norms, access in community and the influence on others; these affect people's beliefs and behaviours. Personal determinants were associated with individuals level of knowledge, expectations on their current environment and attitudes of the persons (Brug, 2008)

Behaviour

Personal factors (Cognitive, Affective and Biological)

Environmental factors
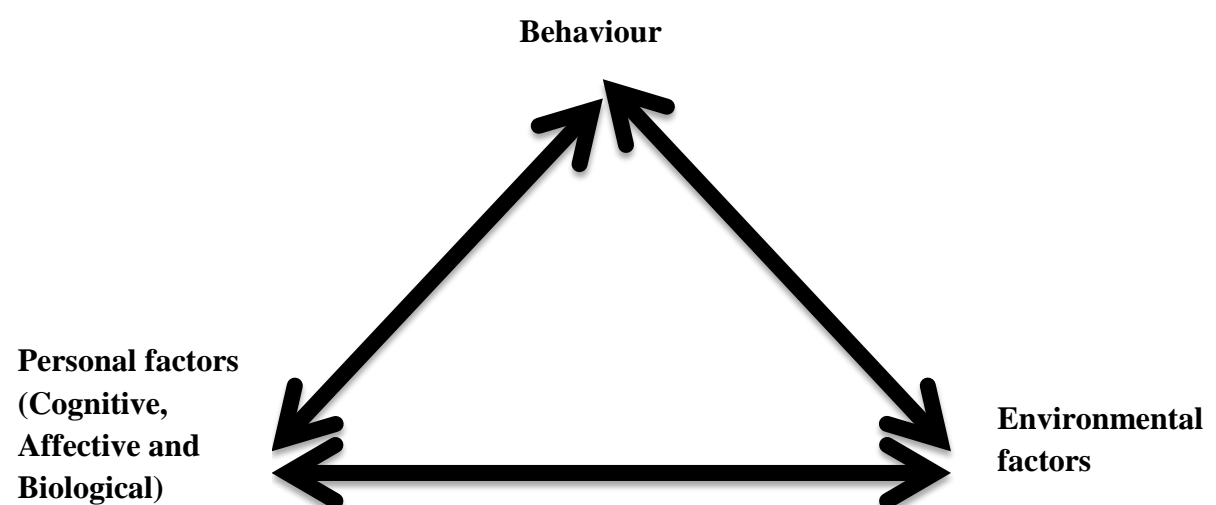
Figure 1.2 Bandura's Social Cognitive Model (Bandura, 2002)

 A critique of the SCT is that learning does not only come from observation, but its been shown that learning could also be as a result of one's own experiences (Kolb, 2014). Migrant's behaviour can change not only as a result of learning but factors such as the socio-economic situation (Delavari, Sønderlund, Mellor, Mohebbi, & Swinburn, 2015). Migrants might have the knowledge about the importance of physical activity and having a good diet as a result of learning, but factors like not being financially equipped, the nature of the weather or unavailability of the foods they are used to, may mean that they are not able to implement their knowledge.

The Ecological System Theory (EST) was initially designed to explain childhood and friendship patterns (Bronfenbrenner, 1994). This model is nested and has five components from the closest to the farthest; the microsystem (which represents a person's immediate environment such as home, family), the mesosystem (interactions with two microsystems), exosystems (culture), the macrosystem (society and religion), the chronosystem (changes over time as a result of interaction with environment). The EST was adapted by Fitzgerald and Spaccarotella (2009) into a Socio Ecological Model (SEM) to explain factors that influence diet and physical activity. Socio Ecological Model (SEM) shows the common barriers to healthy eating and factors that affect physical inactivity (McCabe, Mellor, Ricciardelli, Mussap, & Hallford, 2015). These have been described within four levels (intrapersonal, interpersonal, community/institution and macro/public policy) of an ecological model. The model suggests that health behaviour occurs as a result of the interaction between intrapersonal level as well as the influence of the physical, social, political and economic environment (shown in figure 3). According to the SEM both lifestyle and society influences poor health. Even though the SEM is an ideal in understanding determinants of health, the interactions and interrelations may cause factors

that overlap to be missed. This model clearly demonstrates the need for a multidimensional approach in understanding and designing effective health related interventions. As this thesis is aimed at understanding health and illness beliefs and behaviours in migrants, looking at health from a multidimensional perspective is important in understanding factors that influence unhealthy behaviours ad those that promote healthy ones. The SEM is ideal and very multidimensional (social, physical and environmental factors influencing health). The thesis aims to view health from a multilevel perspective taking into account the interactions and interrelations between the various determinants of health.
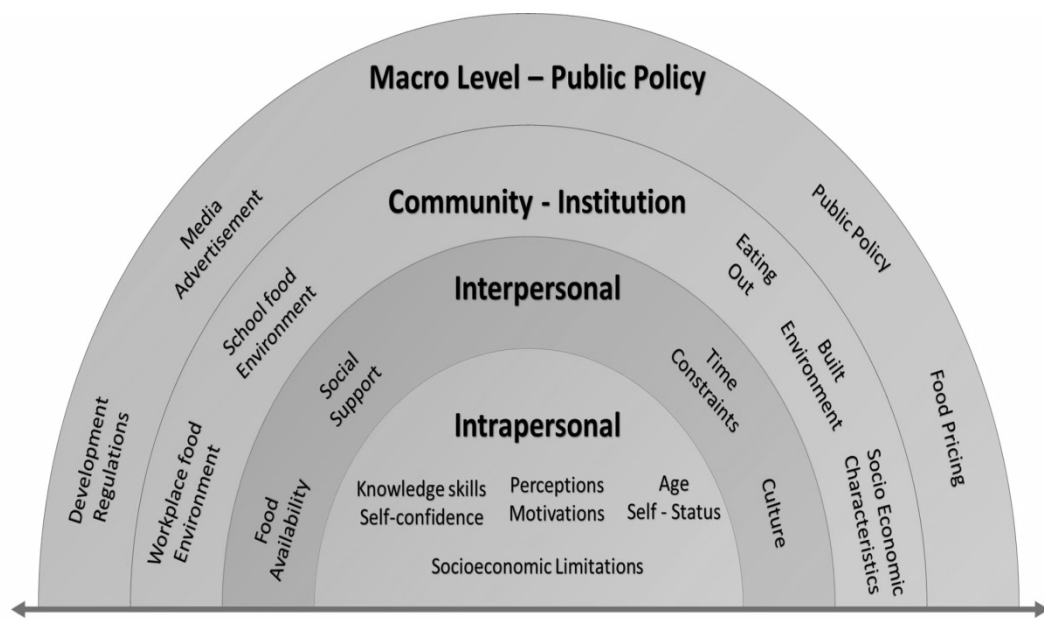
Figure 1.3 A Socio Ecological Model of Factors Influencing Diet and Physical Activity (Fitzgerald & Spaccarotella, 2009).

Migration affects migrants' health as postulated by several studies, either by changes in their culture specific beliefs, behaviours and practices or taking up the beliefs and behaviours of their host culture. The Biopsychosocial Model of Health explains an interaction between the biological make up of a person, their psychology and also the social environment, to

influence behaviour. The biological aspect of this model includes the genetic predisposition to specific conditions. The psychological component includes stress, depression and the social aspect refers to social influences on health such as socio economic status, culture and religion. This model has been used to explain physical health and wellbeing from the biological, psychological and social perspective (Smith & Ruiz, 2002), but however it does not show any clear linkage of the three variables (Schwartz, 1982). Suls and Rothman (2004) argue that the Biopsychosocial Model of Health has the tendency to explain the interdisciplinary approach of understanding health and illness if is further developed to show the linkages between the main variables

Migrants may have genetic predisposition but the process of migration and settling is psychologically challenging. They would then have to adjust to the new social and physical environment. Culture influences one's health beliefs and behaviours. The perception of one's health influences their behaviour as well as their help seeking sources.

Culture and health

> "Culture consists of the derivatives of experience, more or less organized, learned or created by the individuals of a population, including those images or encodements and their interpretations (meanings) transmitted from past generations, from contemporaries, or formed by individuals themselves" (Schwartz, 1993 cited in Avruch, 2015 p10).

Fredrik Barth an anthropologist, describes culture as an empty vessel which is defined by its fringes (Barth, 1969). He describes culture as both tangible and intangible, the tangible aspect of culture are the fringes, which shape its contents. Culture is an inherited

phenomenon and Helman (2007) describes it as a lens through which individuals perceive and understand the world. This lens teaches us how to live and behave. From this definition of culture, one can see that it is something that cannot be ignored, are born into it and live in it, it shapes our thoughts and behaviour. Previous literature has shown that health attribution affects beliefs and behaviours, and has been observed that these are influenced by culture. This is likely to influence engagement in and promotion of healthy behaviours. Health attributions are influenced by factors such as immigration, social support and acculturation (Vaughn, Jacquez, & Bakar, 2009). Culture affects how people engage in health behaviours, promote health behaviours and prevent illnesses (Helman, 2007).

Hellman's theory on causes of illness, suggests that people attribute ill health to bad habits and their negative emotional state and factors caused by their physical environment, systems and structures and those caused by supernatural causes. Furnham, Akande, and Baguma (1999) suggest that Westerners, compared to the rest of the world are likely to attribute cause of illness to structural failings (unfavourable social policies) whilst people from developing countries primarily attribute ill health to social and supernatural causes. It has also been established that social networks influence perceptions and maintenance of illness and disease. A study by Landrine & Klonoff (1994) in America also suggested that ethnic minorities were more likely to attribute diseases and illnesses to supernatural causes, a result of punishment from God or as a result of someone with an "evil eye" . This could be because they still maintained their original cultural belief in the supernatural.

Health of Migrants in the UK

Health is defined by the World Health Organisation (WHO) as: "a state of complete physical, mental and social wellbeing, and not merely the absence of diseases or infirmities" (WHO, 2016). Health however could be described not only as individualistic but as a collective term, which can be enhanced through societal cohesion (Baron et al., 2014; Stokols, 1992).

Health disparities could be described as the differences in disease prevalence and mortality in a population (Green, Lewis, & Bediako, 2005). In countries where the population is diverse, it is important to know the differences in health outcomes of the different groups in order to tackle these inequalities. A review by Caperchione, Kolt, and Mummery (2009) showed that the burden of disease in culturally and linguistically diverse (CALD) migrants in developed countries, could be as a result to the adjustment to a new culture and westernisation.

According to Becares (2013), in an analysis of the UK 2011 census data, many ethnic minority groups have poorer health than the White British population, although ethnic health inequalities vary by age and gender. About 56% of older women above 65 years reported long term illness, over 70% of these women were Pakistani, Bangladeshi and Irish (Scarborough, Bhatnagar, Kaur, Wickramasinghe, & Rayner, 2010). Black Africans have higher rates of HIV infections and tuberculosis (Rechel et al., 2011). Erens, Primatesta, and Prior (2001) also showed that people with South Asian background are five times more likely to develop diabetes than the general population.

Migration is an important determinant of global health and social development (Carballo et al., 1998). The health of migrants brings about serious public health challenges not only

affecting them as migrants but the host community and the world as a whole. Most chronic illness such as cardiovascular diseases, strokes that lead to death and disability are caused by poor diet and physical activities (Scarborough et al., 2010). If migrants should suffer chronic illness in relation to their relocation and change in diet and physical activity, the host countries loses out because of the high cost of health care.

Data on health of Ghanaian migrants in the UK is sparse. It's difficult to know the prevalence of diseases or statistics in health of Ghanaian migrants in the UK because data from census, Office of National Statistics, National Health Service (NHS) or Public Health England tend to merge Africans as Black Africans or African with Caribbean descent. An example of this is a study by Smith, Kelly, and Nazroo (2012) on effects of acculturation on ethnic minorities in the UK using a national health survey of England. It is important for statistics or research on migrant health be dissected to understand the true effect of certain situations (diseases prevalence, impact of ethnicity on health) (Rechel et al., 2011).

It costs the UK economy over £30million pounds in the treatment and management of chronic diseases (Luengo-Fernandez, Leal, Gray, Petersen, & Rayner, 2006). With the growing number of migrants coming to the UK, it is important for the NHS to promote healthy living in order to save cost of treating diseases which could be prevented and also decrease the pressure on NHS resources. Literature on migrant shows that health behaviours deteriorate over time; diets become worse, which may eventually lead to obesity (Carballo et al., 1998). Higher obesity rates in African migrants can be prevented by understanding factors that account for increasing weight in such populations. We are aware that lower levels of physical activity and higher consumption of calories account for obesity, however we are yet to understand why people are less active and eat high calories.

The NHS of England aims to focus on improving diversity in the health care delivery by focusing on health needs of ethnic minority groups in the UK. An example is the inclusion of languages such as Urdu and Hindi in health promotion campaigns, this is probably because the Pakistani and Indian community are one of the majority ethnic minority groups or at risk populations when it comes to some lifestyle related diseases like Cardio Vascular Diseases (CVD)(Scarborough et al., 2010). Schouten and Meeuwesen (2006) have shown that migrants are likely to seek help from health professionals with whom they share a similar ethnic background. To improve accessibility, NHS England has a high number of employees from different ethnic minority groups (Mladovsky, Ingleby, & Rechel, 2012), this will hopefully help improve equality and make their services accessible to people from ethnic minority backgrounds.

Ghana

To understand health behaviours and beliefs of Ghanaian migrants in the UK, it is important to understand the physical and social settings of their home country (Ghana). Ghana as a developing country seeks to improve the health needs of its citizens within and outside the country, with its continued efforts to improve facilities, programs and interventions in relation to health. Ghana before independence in 1957 was formerly known as the Gold Coast, it was renamed Ghana after the ancient Ghana empire. Ghana is located in the western part of Africa, sharing boundaries to the west with the Ivory Coast, the North with Burkina Faso, the east with Togo and south with the Atlantic Ocean.

It is an English speaking country with a population over 27 million. It has a total land area of 238,539 km² consisting of 11000 km² of water and 227533 km² of land with the vast majority of the land being tropical and partly savannah (Oppong-Anane, 2006). Ghana has a

tropical climate which is warm and comparatively dry along the southeast coast, hot and humid in the southwest and dry and hot in the northern sector.

Diseases like malaria, tuberculosis, yellow fever, HIV, cholera, typhoid among others are common in Ghana and are endemic to the sub Saharan African terrain (WHO, 2013). Over the last decade however, the major causes of death in Ghana have shifted from predominantly communicable diseases to a combination of communicable and non-communicable diseases (De Graft Aikins, Anum, Agyemang, Addo, & Ogedegbe, 2012). Ischemic heart disease, stroke and cancers now feature in the top ten causes of death in Ghana (Agyei-Mensah & Aikins, 2010). This upsurge in chronic disease risk, morbidity and mortality has been attributed to factors such as urbanisation, changing lifestyles, ageing populations, globalisation and weak health care systems (De Graft Aikins et al., 2012).

According to the World Health Organisation (2013) the ten main causes of death in Ghana were lower respiratory infections, strokes, malaria, heart disease, HIV/AIDS, preterm birth complications, diarrhoea, birth trauma and asphyxia, meningitis and malnutrition. In Ghana, the probability of dying between the ages of 15 to 60 as a male is 261 per 1000 population and 222 per 1000 as a female. Life expectancy in Ghana is on the low side with an average of 60 years whilst that of a developed country is 75 years.

Health care system in Ghana

Before colonialism, Ghanaians engaged in indigenous health care practices. Biomedicine (western practices) was introduced to the African continent by Christian missionaries and colonial masters (Ranger, 1981). The introduction and development of health care systems in Ghana has been described by Senah (2001) in his article "In Sickness and in health:

Globalisation and health care delivery in Ghana". Historically modern medicine was initially only preserved for colonial masters, this was to help protect and help in their recovery from the infectious diseases, they believed emanated from unhygienic practices of the natives (Senah, 2001). This implied that healthcare professionals and treatment only catered for the needs of Europeans. This pattern however changed in 1844 when traditional rulers and the British had an agreement to extend medical treatment to Ghanaian workers in the civil, military and domestic services for the Europeans, this then was gradually extended to urban and educated Ghanaian (Patterson, 1981).

In 1984, the first hospital was built in Cape Coast. Ghanaians were discriminated against when it came to the delivery of health care; white medical personnel only treated the whites, the very few Ghanaian medical professionals were underpaid and proposals to have Ghanaians trained in health professions were rejected (Patterson, 1981). However, there were gradual improvements in getting health care accessible to Ghanaians by the British until independence in 1957 when the British no longer had power in the governance and administration of the country. Whilst the Europeans introduced biomedical health practices, the development of traditional Ghanaian healing practices stalled. According to Twumasi (1982) traditional healers believed that diseases were caused by a balance between man, his environment and supernatural forces. This belief of traditional healers was contrary to that of biomedicine that attributed most causes of diseases to germs. Accounts by Senah (2001) show that the colonial masters educated Ghanaians with regard to causes of diseases and prevention but they still preferred to use their traditional sources of healing. The preference for traditional sources of healing was as a result of discrimination relating to access and use of biomedical health care (Senah 2001).

Currently, the Ghanaian health care sector is categorized under three main delivery systems namely the public, private (private-for-profit and private-not-for-profit) and traditional systems (Aseweh Abor, Abekah-Nkrumah, & Abor, 2008). Health care delivery and treatment modalities are pluralistic in Ghana. Traditional and modern biomedicines are the main forms of health care delivery. People choose any of these areas depending on the perceived nature or severity of illness (Tabi, Powell, & Hodnicki, 2006).Traditional forms of healing are ancient to the Ghanaian culture and is based on traditions, folk knowledge and behavioural rules on health (Hevi, 1989; Sato & Costa-i-Font, 2012).

The government of Ghana provides most of the health care services through its institutions. The implementation and enforcement of the policies formulated by the Ministry of Health and the enforcement of its regulations are carried out directly or indirectly by the Metropolitan, Municipal and District Assemblies (MMDAs) and other institutions working with the ministry (Aseweh Abor et al., 2008).

 The private sector also plays a major role in delivering health care to the people of Ghana. Health care services in this sector are provided mainly by the mission-based providers (MBP) and the private medical and dental practitioners (PMDP). The mission based providers mainly consists of Christian and Moslem Hospitals. Activities in the traditional sector are regulated by the Department of Traditional and Alternate medicine (a directorate in the Ministry of health) and the main health care providers in this sector are the Traditional Medical Providers (TMP), Alternative Medicine and Faith-based Healers (FH) (Aseweh Abor et al., 2008).

Health care financing in Ghana began with a tax funded system that provided free public health services to all after independence (Blanchet, Fink, & Osei-Akoto, 2012). However,

this system became financially unstable as a result of the economic stagnation in the 1970's causing governments at the time to spend less on health care between 1970 and 1980 consequently leading to deterioration in the quality of care (Wahab & Assensoh, 2008). As a result of this, the "cash and carry'' system was introduced in 1983. Under this system, the health needs of an individual was attended to only after initial payments had been made and the same principle applied even to emergency situations (Wahab & Assensoh, 2008). This system improved revenue generation however worsened access to health care for the poor.

 In the early 1990's, Ghana began to look for other plausible ways of financing health care. The NGO-initiated community-based insurance schemes (CBHIS) became popular at the time but because the schemes were only targeted at specific areas, it failed to address key social insurance issues. Furthermore, the scheme was not supported by government revenue to enable them to cater for the poor and most importantly covering only 1% of the population, the "cash and carry" system then remained the predominant means of paying for health care (Blanchet et al., 2012).

The National Health Insurance Scheme (NHIS) was established by the government of Ghana in 2003 to promote universal coverage and equity in health care delivery services through district mutual and private health insurance schemes. It is one of very few attempts to implement a nationwide universal health insurance programme in sub-Saharan Africa (Kirigia, Preker, Carrin, Mwikisa, & Diarra-Nama, 2006). The NHIS is largely funded by the National Health Insurance Levy (NHIL) which is a 2.5% levy on goods and services collected under the value added tax (VAT), 2.5 percentage points of Social Security and National Insurance Trust (SSNIT) contributions per month, return on National Health Insurance Fund (NHIF) investments and premium paid by informal sector subscribers. The NHIL and SSNIT constitute over 90% of the total inflows. Government allocation

complements the funding of the scheme. The benefit package of the NHIS covers over 95%

of the disease conditions that afflict Ghanaians. The benefit package consists of health

services including Outpatient Services, In-Patient Services, Oral Health, Eye Care Services,

Maternity Care and Emergencies (Blanchet et al., 2012). However, the NHIS package

excludes some services classified as unnecessary or very expensive such as certain surgeries

(heart and brain surgeries), cancer treatments (other than breast and cervical cancer), organ

transplants, dialysis, cosmetic surgery, photography, angiography, assisted reproduction,

HIV antiretroviral drugs, medicines that are not on the NHIS Medicines list and Diagnosis

and treatment abroad. In addition to the excluded services, other formal limits have also been

placed on NHIS members' consumption of the services such as no annual or lifetime limits,

no cost-sharing beyond premiums and a ceiling on the number of visits per month (Witter &

Garshong, 2009).

Aims of thesis

In order to understand and improve on health inequalities, it is important that research

focuses not only on issues of migrant health but a comparative analysis of different migrant

groups as well as their host and home countries (Rechel et al., 2011). There is a dearth of

evidence for documentation when it comes to health beliefs and behaviours of Ghanaian

migrants in the UK. The thesis aimed to advance our knowledge and understanding about

migration, health beliefs and behaviours of Ghanaian migrants living in the UK by

specifically addressing these aims below.

Aim one: To systematically review the evidence of the association between acculturation

and bodyweight among migrants to high-income countries and to further explore if these

studies accounted for the role played by health behaviours. This aim was addressed by conducting a systematic review of research papers on acculturation and its influence on migrant body weight, this including all the different kinds of measures used to describe acculturation.

Aim two: Explore beliefs about health among Ghanaian and Indian migrants as well as the white British population residing in an urban area within the UK. This was addressed by qualitative interviews using adapted life histories with Ghanaian and Indian migrants as well as white British participants residing in an urban area within the UK. Migrant participants explained their daily lives in their home countries prior to moving to the UK and their daily lives in the UK. Aspects concerning their health were further probed to understand the meaning behind activities they take pertaining to their health. White British participants spoke about health in relation to their daily lives. This has been presented in chapter four of the thesis.

Aim three*:* Explore what influences illness perceptions and help-seeking behaviour of older Ghanaian men. Findings from the previous study found gender differences in the meaning of health, which influenced help seeking. These findings were used to develop aim three and informed the interview schedule for aim three. Men were more likely to report that they were well because of how they attribute signs of good health. Men in our study attributed good health to the avoidance of healthcare services or not having a major illness. As a result aim three is a follow up study exploring the help seeking choices and illness perceptions of older Ghanaian men in Kumasi, Ghana and London UK. Apart from this men were the main focus of this study because a previous study had been done with female participants (Owusu-Daaku & Smith, 2005). Very little research has been undertaken that focuses on the health beliefs of Ghanaian men. This has been presented as chapter five.

Outline of thesis chapters

Chapter two is a systematic review on the role of acculturation and health behaviours on weight gain among migrant populations. Chapter three presents the overall methodology used in conducting the qualitative research, it sought to explain why methods were chosen and the approach used for the data analyses. Chapter four is a study exploring experiences of migration on migrant health and the meaning of health as well as factors promoting health. Chapter five is a study to identify help seeking channels and illness perception of adult Ghanaian men in Ghana. Finally, chapter six presents a general discussion of the whole thesis addressing the linkages in all the chapters.

CHAPTER 2

A SYSTEMATIC REVIEW OF ACCULTURATION, OBESITY AND HEALTH BEHAVIOURS AMONG MIGRANTS TO HIGH-INCOME COUNTRIES

Introduction

According to the World Health Organisation (WHO), 65% of the World's population live in high and middle-income countries, which have high mortality rates associated with obesity-related diseases (WHO 2014). Being overweight or obese is associated with poorer health outcomes and an increased risk of some cancers, cardiovascular disease, arthritis and hypertension (Mokdad et al., 2001; Calle et al., 2003; WHO, 2014). The majority of international migration occurs from low or middle-income countries to a high-income country. However, there is evidence of relatively good health among most migrants, particularly among "voluntary" migrants, from low to high-income counties, and this finding is often referred to as an *immigrant health paradox*. The immigrant paradox describes how first generation ethnic minority groups, who are less acculturated, have better health-related outcomes than native born populations (Dey & Lucas, 2006; Makrides & Eschbach, 2005). Migrants to high-income countries are often in better psychological and physical health than those in their country of origin (Crimmins et al, 2007) and this is referred to as the *healthy migrant effect* (Kandula et al., 2004). However, over time, migrants are exposed to both healthy and unhealthy behaviours associated with the host country (Goel et al, 2004), influenced by the impact of environmental and contextual factors (Boyle & Norman 2009).

Acculturation refers to the psychological, behavioural, and attitudinal changes that occur when individuals and groups from different cultures come into prolonged contact with each other and whereby individuals adopt attitudes, values, customs, beliefs, and behaviours of another culture (Crespo et al. 2001). Acculturation following immigration is associated with both chosen and imposed life changes that could potentially benefit, or adversely affect, physical and psychological health outcomes (Abraído-Lanza et al, 2006; Boyle & Norman,

2009). Current theories of acculturation view the process as bi-directional and one such theory (Berry 1990, 1997) outlines four categories of acculturation that incorporate both receiving-culture acquisition and heritage-culture retention: (1) assimilation (the individual acquires the receiving culture and discards the heritage culture); (2) separation (the individual rejects the receiving culture and retains the heritage culture); (3) marginalization (the individual rejects the receiving culture and discards the heritage culture); (4) integration (biculturalism or when an individual acquires the receiving culture and retains the heritage culture) (Berry 1997; Chun et al, 2003). Berry's (1997) model takes into account both culture and stress as important factors useful in understanding migrant health behaviours. This may influence long-term health outcomes but may vary according to individual and group factors. In the context of the aim of this study acculturation is viewed as bi-directional, with integration of the two cultures being optimal. Integration allows individuals to get the best of both worlds, in terms of health beliefs and behaviours. Shedding of negative beliefs and behaviours about health (from old culture) and picking up positives aspects from the new culture. This however could also be negative, where negative traits of the two cultures are retained.

A greater degree of acculturation is associated with both health-reducing behaviours, such as a reduction in fruit and vegetable consumption (Neuhouser et al., 2004) and health-enhancing behaviours, including the use of preventative healthcare services (Lara et al., 2005) or increased levels of leisure-time physical activity (Crespo et al., 2000). A previous review highlighted the relationship between acculturation and obesity among migrants from low and middle-income countries to high-income countries (Delavari et al., 2013). This paper reviewed nine studies, six of which reported a positive association between greater acculturation and higher body mass index. The authors proposed that the host culture of high

income countries may promote unhealthy weight gain, partly due to rapid nutrition transition. However, the remaining three studies in the Delavari review reported that higher acculturation was associated with lower BMI, mainly among women. The authors postulated that this could be due to cultural influences on body image, female food choices and physical activity, although they did not report on health behaviours within the review. Although this was a well conducted review, it only included studies utilising acculturation scales (designed to capture different aspects of acculturation and enculturation in one measure). The Delavari review excluded proxy measures, which are measures that describe one component of acculturation, such as length of residence, language use or generational level. Proxy acculturation items can be useful to assess acculturation where comprehensive acculturation scales may be impractical (Cruz et al., 2008). Short proxy measures are often relatively simple and are also useful to include within larger surveys without greatly increasing participant burden. Furthermore, language spoken (during interview or at home), proportion of life lived in the host country, and generational status show high internal consistency and strong correlations with existing acculturation scales (Cruz et al., 2008). In addition, many acculturation scales have been reported to focus on specific target groups with limited cross-cultural validity of the instruments reported (Celenk and Van de Vijver, 2011). It has been suggested that proxy variables may help identify factors that mediate the acculturation process and may aid the understanding of factors that influence the individual acculturation process, whilst acculturation scales may reflect group level factors (Cabassa, 2003).

The current review updates and extends the review by Delavari and colleagues (which included literature published up to May 2011) and included studies that utilised both acculturation scales and proxy measures of acculturation. This extended review will allow

identification of whether a range of acculturation factors is associated with obesity among migrants to high-income countries. Focusing on studies published since 2001 is particularly pertinent given that since 2000 the population of the UK has increased at a faster rate than any time in the previous 90 years (Migrant Watch UK, 2017) and that during the period 2000-10, the number of global migrants grew twice as fast as the previous decade (OECD-UNDESA, 2013). Due to the global recession global migration figures have since slowed down, however, the number is still greater than seen in the 1990's. The aim of this review was to systematically review the evidence of the association between acculturation and bodyweight among migrants to high-income countries and to further explore if these studies accounted for the role played by health behaviours.

Method

This review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher et.al, 2010). A systematic search of the literature was performed utilising a keyword search of three electronic databases (Medline, PsychINFO and EMBASE). A search strategy was developed in consultation with a medical research librarian with the aim of increasing search sensitivity. The search terms were grouped into two blocks: *Block one*: acculturation*, culture*, migrant*, country of origin, ethnic*; *Block two*: obesity*, body weight, body fat, BMI, body size. The terms in each block were searched using the OR function. The results of each block of searches were then combined using the AND function. Duplicates were excluded. Titles and abstracts were read to determine the suitability of studies. Once a final list of included studies had been identified, a backward (reference) search was undertaken to ensure no relevant article had been omitted. A forward (citation) search was also then conducted. Full texts were screened for relevance according to the inclusion and exclusion criteria. Studies were included if they:

(1) used a quantitative methodology; (2) were published between January 2001 to December, 2016; (3) focused on participants aged over 18 years; (4) were published in English and (5) focused on participants who had migrated from low/middle to high income countries. Studies were excluded if they were: (1) published as a conference abstract or review article; (2) were qualitative studies or (3) focused on participants aged under 18 years. For each study, the following information was obtained and recorded on a study specific datasheet: author(s), country of study, year of publication, sample, acculturation measure, BMI measure, health behaviours and main findings.
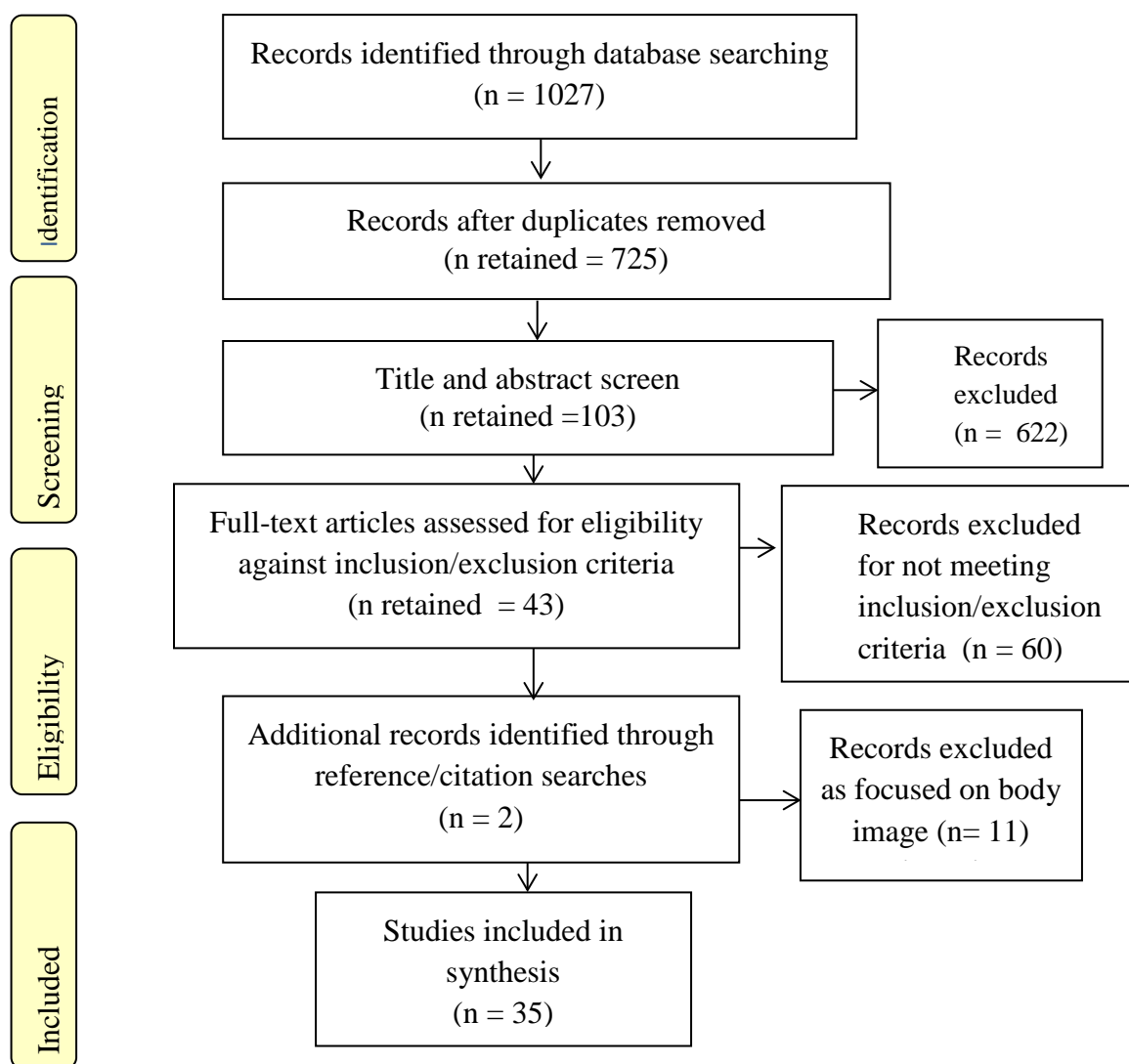
Figure 2.1: Process of study selection

Figure 2.1 shows the process of selecting the studies to be reviewed. The database search identified 1027 studies, duplicates were then removed (725 retained). The titles and abstracts were read to include studies that addressed the aim of this review, 103 papers were retained. The exclusion and inclusion criteria were applied to the 103 papers with 43 papers being retained. Papers that focussed on body image were omitted, as this was not the objective of the review. A backward and forward search identified two more papers. A total of 35 papers were included in this review.

Study Quality

All included articles underwent quality assessment using standardised quality assessment criteria for evaluating primary research papers (Kmet et al., 2004). This quality tool was chosen because it is an established tool used widely. The items on the quality tool were suitable for the nature of the studies used for the review as the studies were mainly cross sectional. Ten items (from the original 14 items) on the quality scale were used (e.g. are results reported in sufficient detail - including major outcomes and all mentioned secondary outcomes?). The remaining four items were excluded because they focused on intervention studies, which was not the focus of this review. Studies were assigned a score of 2 (fully met criterion), 1 (partially met criterion) or 0 (did not meet criterion). A meta analyses was not undertaken because the data from the studies were so varied that it would not have been possible to combine using statistical techniques.

Studies were assigned a score of 2 (fully met criterion), 1 (partially met criterion) or 0 (did not meet criterion). Scores were summed and divided by the number of relevant items measured. Two researchers carried out this process; some minor differences in ratings emerged and following a discussion consensus was reached. A score of greater than or equal

to 1.7 was categorised as high quality, a score of 1.1 to 1.6 was categorised as moderate (medium) quality and less than 1.1 as low quality.

Results

Thirty-five studies were included in this review (Figure 2.1); all were rated as medium or high quality (Table 2.1). The sample sizes across the studies ranged from 152 to 126,796 participants. Twenty-one studies were conducted in the USA. Twenty-two studies utilised data from secondary sources. Eight studies used acculturation scales (Ahwulia et al., 2007; Barcenas et al., 2007; Betera et al., 2003; Chen et al, 2012; Delavari et al., 2015; Isasi et al., 2015; Miller et al., 2004; Serafica et al., 2015). Thirty studies utilised proxy measures, of which 12 included multiple proxy measures and three included both acculturation scales and proxy measures; see Table 1). Proxy measures included including duration of residence (26 studies), language (seven studies), generational status (six studies), social interaction (two studies) or cultural integration (one study).

Factors Associated with Obesity

Acculturation scales

Acculturation scales were used in eight studies and included the Suinn-Lew Asian Self Identity Scale (short version: Chen et al, 2012), the American and Russian Behavioural Acculturation Scale (Miller et al., 2004), the Bidirectional Acculturation Scale for Hispanics (Barcenas et al 2007), the Vancouver Index of Acculturation (Delavari et al., 2015), the Short Acculturation Scale for Hispanics (Isasi et al., 2015); the Acculturation Scale for Filipino Americans (Serafica et al., 2015) and two researcher developed scales (Ahluwalia et al. 2007; Betera et al., 2003) . Overall there was a positive association between higher

acculturation scores on the scales and greater BMI or rates of obesity reported in five of the eight studies (Barcenas et al, 2007; Betera et al., 2003; Chen et al, 2012; Miller et al, 2004; Serafica et al 2015). Only two of these five studies also examined health-related behaviours. In one study physical activity was associated with lower obesity rates among women, although this pattern was not observed among men (Barcenas et al, 2007). However, in the second study, food choice was associated with increased BMI (Chen et al 2012) although the study demonstrated that having equal preference for original country of origin foods (Asian foods) and host country foods (USA) was associated with greatest levels of obesity. Conversely, one study reported that lower acculturation scores was associated with a higher reported BMI (Ahluwalia et al., 2007), which may have been due, in part, to respondents with lower acculturation scores also reporting that they were less likely to have attempted to lose weight over the preceding 12 months) and more satisfied with their weight. Finally, one study also found that although acculturation was not directly associated with obesity (the finding was not significant) the socioeconomic status of migrants affected whether they perceived the host environment as being conducive to health and wellness (Delavari et al., 2015). This study did not report on health behaviours.

Duration of Residence

Longer duration of residence (examined in 26 of the studies) was associated with higher rates of being overweight and obese in 17 studies (Afable et al. 2016; Albrecht et al. 2015; Ball and Kenardy 2002; Betera et al 2003; Creighton et al. 2012; Dijkshoom et al. 2008; Gele and Mbalilaki 2013; Isasi et al 2015; Kaplan et al 2004; Lindstrom and Sundquist 2005; Mcdonald and Kennedy 2005; Quesnel-Vallee et al. 2009; Park et al. 2009; Ro and Bostean 2015; Roshania et al 2008; Shah et al 2015; Ullmann et al 2013). In one of these studies the

effect was only significant for women (Ro and Bostean 2015) and in one the effect was only observable for men (Quesnel-Vallee). Conversely in two studies shorter duration of residence was associated with increased risk of obesity, although neither of these studies reported health behaviours (Oakkar et al. 2015; Shi et al. 2015). One study did not report any data related to duration of residence and weight (Jonnalagadda et al. 2002) and one study reported a mixed pattern of evidence with people in the mid quartiles (14 to 32 years duration of residence) reporting the largest BMIs (Lesser et al. 2014). Five studies reported no significant association between duration of residence and weight (Iversen et al 2013; Miller et al 2004; Nguyen et al 2015; Raberg et al 2010; Tran et al. 2013). Nguyen and colleagues reported no association between obesity and length of residency in foreign born Asian participants residing in California when analysed as a homogenous group but further exploratory subgroup analysis revealed that participants who were Filipino born were more likely to be obese with longer residency. Greater acculturation and longer duration of residence was associated with more self-reported dietary change (Chen et al, 2012; Lin et al., 2003; Lesser et al., 2014; Roshania et al., 2008). In addition, it was reported that although South Asian migrants in Canada increased their consumption of fruit and vegetables they also increased their consumption of convenience foods, sugary drinks and red meat (Lesser et al., 2014).

Six studies looked at the relationship between generational status and obesity. Although first generation migrants were observed to have increased obesity rates with longer duration of residence (Park et al, 2009; Bennet et al., 2007) and compared to the host population (Hauck et al. 2011) it was apparent that second generation migrants were observed to have higher obesity rates or a higher recorded body mass index (BMI) than first generation migrants (Creighton et al. 2012; Hauck et al., 2011; Smith et al, 2011; Ullmann et al 2013). However,

there appeared to be a plateau effect as second generation migrants were also observed to have greater BMI than third generation migrants (Bennet et al 2007). Within these studies three examined the role of health behaviours and reported that low levels of physical activity was associated with greater body weight (Smith et al. 2011; Hauck et al. 2011) as was a greater number of unhealthy dietary behaviours, which were observed among second, rather than first generation migrants (Creighton et al. 2012). Second generational migrants were more likely to adopt unhealthy behaviours such as smoking tobacco, consuming alcohol, snack foods and sweet foods, as well as reporting lower levels of physical activity (Creighton et al. 2012; Smith et al 2011).

Culture and language

Seven studies examined the association between not speaking the host country's language fluently and rates of obesity, however three of these studies did not report any findings relating to this relationship (Creighton et al. 2012; Lin et al. 2003; Ro and Bostean 2015). The remaining studies all reported that better host (English) language skills were associated with lower obesity rates (Bennet et al 2007; Nguyen et al., 2015; Miller et al. 2004; Shi et al 2015). One study examined cultural orientation and found no association between scores on this meaure and obesity (Dijkshoorn et al. 2008). Finally, one study reported greater social accultruration (tendency to mix with people outside of your ethinic group) was assoaicted with greater risk of obesity (Creighton et al 2012), whereas a second study examining social interaction found no association with obesity (Tran et al. 2013).

Table 2.1: Acculturation factors associated with obesity or overweight among migrants

| Study | Study Design | Measure of Acculturation | Sample size/ Country of origin | Measure of BMI / body size | Associations with weight | | | Quality |
					Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	
Afable et al. (USA)	Cross sectional	Duration of residence	1,213 Philippines	Clinician measured	-	Longer duration of residence (15 years) associated with higher BMI (OR = 1.7; 95% CI 1.1 to 2.5)	-	Not examined	Med
Ahluwalia et al. (USA)	Secondary Analysis [National Health and Nutrition Examination Survey]	Acculturation scale (researcher developed – focused on language)	1,301 Mexico	Researcher Measured	Lower acculturation score less likely to have a high ($\geq$30) BMI (24% vs 32%)	-	-	Lower acculturation score less likely to have attempted to lose weight in last year (OR 0.49; 95% CI 0.31to 0.79)	High
Albrecht et al. (USA)	Secondary analysis [Multi-Ethnic Study of Atherosclerosis]	Duration of residence	877 Hispanic countries (not detailed) 689 China	Researcher Measured (waist circumference)	-	<15 years duration had greater annual increases in waist circumference than immigrants with duration >30 years (mean difference 0.19; SE 0.09; p<0.05)	-	More walkable neighbourhoods associated with slower increases in waist circumference over time among Chinese sample only (change in cm 0.5; SD 6.4; p<0.05)	High
Ball & Kenardy (Australia)	Secondary Analysis [Women's Health Australia Project]	Duration of residence	14,779 various countries of origin	Self –reported	-	Longer duration of residence associated with higher BMI (F=56.8, p< 0.05)	-	Women migrating after 1991 were 36% less likely to have dieted in the past year than host population (p<0.01)	Med
Barcenas et al. (USA)	Cross-sectional	Acculturation scale (Bi-dimensional Acculturation scale BAS)	7,503 Mexico	Self –reported	Greater acculturation scores more likely to be obese than those who were less acculturated 46% vs 43% (p<0.001) OR 1.43 (95% CI 1.11 to 1.84)	-	-	High degree of physical activity associated with less likelihood of obesity among women only (men n.s.) (prevalence OR 0.67; 95% CI, 0.59 to 0.77).	High
Bennet et al. (USA)	Secondary analysis [Healthy Directions-Health Centres Study]	Language; generational status	551 Africa; America– non-Hispanic countries	Self –reported	-	2nd generation more likely to be obese than 3rd generation (OR = 0.54; 95% CI, 0.37 to 0.80)	Low to moderate language acculturation more likely to be obese (OR = 0.45; 95% CI 0.23 to 0.88)	Not examined	High

Study	Study Design	Measure of Acculturation	Sample size/ Country of origin	Measure of BMI / body size	Associations with weight				Quality
					Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	
Betera et al. (USA)	Cross-sectional	Acculturation scale (researcher developed); duration of residence	1,205 El Salvador	Self-reported	High acculturation associated with obesity in regression model R^2=45%	Number of years in the US predictor of overweight among 20-29 year olds (t-2.2*, p<0.01); 30-39 year olds (t=4.4; p<0.001) and ≥ 40 years (t=6.9; p<0.001).	Preference for Spanish media associated with overweight among 20-29 year olds (t=3.2; p<0.001)	Not examined	Med
Chen et al. (USA)	Cross-sectional	Short version of Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA)	847 China, Korea and Vietnam	Researcher Measured	Higher score associated with increased BMI (b = 0.71, SE = 0.28)	-	Self-identified as Americans (b = 1.51, SE = 0.77) associated with increased BMI.	Equal preference of Asian/American food in restaurants associated with increased BMI (b = 0.92, SE = 0.28)	High
Creigton et al. (USA)	Secondary analysis (Los Angeles Family and Neighbourhood Survey)	Language; duration of residence; social acculturation	1,610 Mexico	Researcher measured or self-reported	-	Longer duration of residence associated with obesity. Highest prevalence of obesity among 2nd generation Mexican (OR 2.1; p<0.001) and Black immigrants (OR 2.3; p< 0.001)	Great social acculturation associated with greater risk of obesity (OR 1.36).	Unhealthy dietary behaviours more common among with native born Mexicans -0.464(p<0.01) and black Americans -0.611(p<0.001) than the 1st generation migrants	High
Delavari et al. (Australia)	Cross sectional	Vancouver Index of Acculturation	152 Iran	Researcher measured	No association between pattern of acculturation and weight	-	-	n.s.	Med
Dijkshoorn et al. (Netherlands)	Cross sectional	Duration of residence; cultural orientation	1,384 Turkey; Morocco	Self –reported	-	Longer duration of residence associated with obesity among men (OR 2.46; 95%CI 1.20 to 5.04) and women (OR 9.32; 95%CI 1.18 to 73.4)	n.s.	Not examined	Med
Gele &Mbalilaki (Norway)	Cross sectional	Duration of residence	208 Somalia	Researcher Measured	-	Longer duration of residence (≥ 14 years) associated with general and abdominal obesity OR 7.16; 95% CI: 2.14 to 23.8	-	Physical inactivity associated with general and abdominal obesity OR 2.19; 95% CI:1.06 to 4.49)	Med

					Associations with weight			
Study	**Study Design**	**Measure of Acculturation**	**Sample size/ Country of origin**	**Measure of BMI / body size**	**Acculturation scale**	**Duration of residence/ generational status**	**Culture and language**	**Health related behaviours / weight**	**Quality**
Hauck et al. (Australia)	Secondary analysis [Victoria Population Health Survey]	Generational status	15,783 Various countries of origin	Self –reported	-	1st generation South European have higher BMI (coef 1.06, SE 0.22) than native Australians and South (coef -1.40, SE 0.36) and East Asian (coef -2.51, SE 0.24) migrants have lower BMI. Differences not apparent with 2nd generation migrants	-	Walking < 10 minutes per week associated with greater body weight (coef across groups between 0.49 and 0.55)	High
Isasi et al.(USA)	Secondary analysis [Hispanic Community Health Study]	Short Acculturation Scale for Hispanics; duration of residence	16,415 Various countries of origin	Researcher measured	n.s.	Longer duration associated with moderate (OR 1.5, 95% CI 1.1 -1.9) or extreme obesity (OR 2.2, 95% CI 1.4 to 3.5)	-	Eating Hispanic and American foods in equal amounts more likely to have extreme obesity than eating more Hispanic food (OR 1.45, 95% CI 1.04 to 2.02).	High
Iversen et al. (Norway)	Secondary analysis [Oslo Health Study; Oslo Migrant Health Study]	Duration of residence, language skills	14,208 Turkey, Sri Lanka, Iran, Pakistan, Vietnam	Researcher measured	-	n.s.	Smaller increase in BMI with better language skills among Turkish women (r=-0.70, p<005)	Not examined	High
Jonnalagadda & Diwan (USA)	Cross sectional	Duration of residence	236 India	Self –reported	-	n.r.	-	BMI associated with physical activity (r=-0.24, p<0.05) and total fat intake ((r=0.27, p<0.05)	High
Kaplan et al. (USA)	Secondary analysis [National Health Interview Survey]	Duration of residence	2,420 Various countries of origins	Self –reported	-	Longer duration of residence (> 15 years) associated with greater risk of obesity (OR 4.3; 95% CI 2.39 to 7.78)	-	Controlled for smoking and physical activity	High
Lesser et al. (Canada)	Secondary analysis [Multi-Cultural Community Health Assessment Trial]	Duration of residence	207 Bangladesh, India, Nepal, Pakistan, Sri Lanka	Researcher measured	-	Mixed pattern of evidence with BMI – 2nd quartile (14 to 21 years) higher BMI than 3rd quartile (21 to 32 years)	-	Duration of residence was associated with increased stir fry/BBQ (r= 0.201, p <0.05), baking/grilling (r = 0.302, p < 0.001), microwaving (r=	Med

					Associations with weight			
Study	Study Design	Measure of Acculturation	Sample size/ Country of origin	Measure of BMI / body size	Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	Quality
								0.181, p<0.05) and consumption of red meat (r = 0.201, p<0.05)	
Lin et al. (USA)	Secondary analysis [Massachusetts Hispanic Elderly Study]	Language	582 Puerto Rica; Dominican Republic	Researcher measured	-	-	n.r.	Diet with high rice content associated with lower acculturation (OR 0.71; 95% CI 0.59 to 0.85) and greater BMI (OR 1.05; 95% CI 1.02 to 1.09)	Med
Lindstrom & Sundquist (Sweden)	Cross sectional	Duration of residence	3,788 Various countries of origin	Self –reported	-	Longer duration of residence associated with greater risk of obesity in men (OR 2.5; 95% CI 1.04 to 6.1) and women (OR 5.5; 95% CI 1.4 to 22.1)	-	Not examined	High
Mcdonald & Kennedy (Canada)	Secondary analysis [National Population Health Survey; Canadian Community Health Survey; Canadian Census]	Duration of residence	126,796 Various countries of origin	Self –reported	-	Migrant women 7% less likely to obese on arrival and obesity rates converge to same as host population after 20 to 30 years.	-	Not examined	Med
Miller et al. (USA)	Longitudinal	American and Russian Behavioural Acculturation Scale; duration of residence	218 Russia	Researcher measured	Higher Russian behavioural acculturation score (maintaining home culture and language) associated with higher BMI (r= 0.252, p< 0.001)	n.s.	Need to maintain original culture associated with greater BMI and waist circumference (beta=-.15,p<.05) (r²=.25,p<.01)	Maintaining original dietary culture was a risk factor for obesity (statistics n.r.)	High
Nguyen et al. (USA)	Secondary analysis [California Health Survey]	Duration of residence; language	2,871 (defined as Asian – various country of origin)	Self –reported	-	n.s.	English proficiency associated with lower obesity rates (r= -0.089, df = 2585, p< 0.001)	Not examined	High
Oakkar et.al.	Secondary	Duration of	7,073	Clinician	-	Shorter duration of	-	Not examined	High

Study	Study Design	Measure of Acculturation	Sample size/ Country of origin	Measure of BMI / body size	Associations with weight				Quality
					Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	
(USA)	analysis [California Men's Health Study]	residence /generational status	China; Japan; Philippines; Korea; Vietnam	measured		residence (OR 0.64, 95% CI 0.51 to 0.80) 1st generation less likely to be overweight than 3rd generation (OR 0.50; 95% CI 0.44 to 0.57)			
Park et al. (USA)	Secondary Analysis [National Health Interview Surveys]	Duration of residence (in 5 year blocks)	26,521 Various countries of origin	Self –reported	-	Longer duration of residence the greater the obesity prevalence rates (11.2% among those resident for 0-4 years to 22.3% among those resident for 10 -14 years; p<0.05)	-	Not examined	High
Quesnel-Vallee et al. (Canada)	Secondary analysis [National Population Health Survey]	Duration of residence	5,464 Various countries of origin	Self –reported	-	Longer duration of residence associated with greater BMI in men (mean change in BMI each year 0.03, 95% CI 0.00 to 0.07)	-	Regular physical activity was associated with lower BMI than infrequent physical activity among females (adjusted estimate -0.22; 95% CI -0.32 to -0.12)	High
Raberg et al. (Norway)	Cross sectional	Duration of residence	629 Pakistan; Sri Lanka	Researcher measured	-	n.s.	-	Lower BMI associated with eating more hot meals (adjusted β -0.54; 95% CI -0.99 to -0.10, p< 0.05)	High
Ro & Bostean (USA)	Secondary analysis [National Latino and Asian American Survey]	Duration of residence; language	2,782 Various countries of origin	Self –reported	-	n.s. for men Longer duration of residence associated with greater BMI among women (B=0.65, p<0.05)	n.r.	-	High

Study	Study Design	Measure of Acculturation	Sample size/ Country of origin	Measure of BMI / body size	Associations with weight				Quality
					Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	
Roshania et.al. (USA)	Secondary Analysis [New Migrant Survey]	Duration of residence	6,421 Various countries of origin	Self –reported	-	Longer duration of residence (<1 year vs ≥ 15 years) associated with greater likelihood of being overweight\obese (OR = 10.96, 95% CI 5.33 to 22.56, p<0.001).	-	Higher dietary change associated with overweight/obesity (OR 1.32, 95% CI 1.13 to1.53, p<0.01) Length of stay associated with greater dietary change (less 1 year (22.2%) vs 37.6% at >15 years)	High
Serafica et al. (USA)	Cross sectional	Acculturation Scale for Filipino Americans	108 Philippines	Researcher measured	Greater acculturation associated with higher BMI (t=2.87, p<0.01)	-	-	-	Med
Shah et al. (United Arab Emirates)	Cross sectional	Duration of residence	1,375 India, Pakistan, Bangladesh	Researcher measured	-	Longer duration of residence associated with central obesity (6 to 10 years duration: AOR 1.63 95% CI 1.13 to 2.35, p < 0.008; >10 years duration AOR 1.95 95% CI 1.26 to 3.01, p < 0.002; respectively)	-	n.s.	Med
Shi et al (USA)	Secondary Analysis [Los Angeles County Health Survey]	Language; duration of residence	15,471 Various countries of origin	Self-reported	-	Shorter duration of residence (<5 years) associated with greater likelihood of obesity (OR 1.843; 95% CI 1.45 to 2.34)	Speaking English at home associated with lower likelihood of obesity (OR =0.674; 95% CI 0.514 to 0.882)	n.r.	Med
Smith et al. (England)	Secondary analysis [Health Survey for England]	Generational status	9,494 Various countries of origin	Researcher measured	-	Second generation Indian (OR 1.76; 95% CI 1.14 to 2.71) or Chinese (OR 3.65; 95% CI 1.37 to 9.78) more likely to be obese	-	Adjusting for poor dietary factors and low physical activity associated with a small increase in odds of obesity (n.s.). Alcohol intake associated with a reduced risk of obesity across all most groups (n.s.).	High

Study	Study Design	Measure of Acculturation	Sample size/ Country of origin	Measure of BMI / body size	Associations with weight				Quality
					Acculturation scale	Duration of residence/ generational status	Culture and language	Health related behaviours / weight	
Tran et al. (Australia)	Secondary analysis [45 and Up]	Duration of residence, social interaction	797 Vietnam	Self-reported	-	n.s.	n.s.	n.r.	Med
Ullmann et. al. (USA)	Secondary analysis [Los Angles Family and Neighbourhood Survey]	Duration of residence; generational status	975 Various countries of origin	Self –reported	-	Longer duration of residence associated with weight gain (mean at baseline 74.6 kg to 76.4kg at follow-up; p<0.05) Being 2nd generation Hispanic was a predictor of weight gain (est coef 0.30; 95% CI 0.08 to 0.51; p < 0.01)	-	Not examined	High

AOR - adjusted odds ratio; CI – confidence interval; OR- odds ratio; n.s. – not significant; n.r. – not reported

Discussion

This review aimed to identify acculturation factors associated with migrant obesity as measured with both acculturation scales and proxy measures of acculturation. Thirty-five studies met the criteria for this review; these studies were predominantly undertaken in the USA, Canada, Australia and the UK. This review has shown that acculturation (whether determined using acculturation scales or proxy measures) is associated with weight gain amongst migrants in most studies.

Most of the studies that utilised acculturation scales reported similar findings. They reported a positive association between acculturation and weight gain (Barcenas et al, 2007; Betera et al., 2003; Chen et al, 2012; Miller et al, 2004; Serafica et al 2015, concluding that the more acculturated people were the higher the BMI. Longer duration of residence was associated with greater likelihood of being overweight or obese**.** However, there were inconsistencies in findings according to gender suggesting a more complex relationship than is often accounted for in the literature. It has been suggested previously that acculturation measures, whether acculturation scales or proxy measures, may not adequately capture individual differences and experiences of the acculturation process (Creighton et al, 2012). However, current literature and measures are not exhaustive and lack a detailed focus on the role of extraneous and social sources (including the media, family units, wider social networks) and the role of neighbourhood or work-related influences. For example, preliminary research examining the role of social (friend) networks in the adoption of obesity related behaviours among adolescents in Australia highlighted that same-sex peers are important determinants of many health behaviours, including physical activity, sun-safe behaviours and consumption of high-calorie foods (De la Haye 2010), highlighting the need to account for factors, such a social norms, when examining changes in obesity related behaviours among migrant populations.

Few studies directly examined the relationship between acculturation (in it various definitions) and specific health behaviours or controlled for specific behavioural variables in determining the relationship between acculturation and weight gain (Creighton et al. 2012; Lesser et al., 2014; Roshania et al., 2008). The health-related behaviours that were identified through this review (eating high calorie foods, low levels of physical activity) are well established as being associated with weight gain. Furthermore, studies in this review highlighted that migrants developed food consumption patterns that were reported to be similar to those observed amongst the host population. In line with this, the operant model of acculturation posits that health behaviours that are highly prevalent among traditional minorities would decrease with acculturation and thereby have a lower prevalence among acculturated cohorts. The model predicts that a high consumption of fruits and vegetables recorded amongst culturally traditional minority groups would likely decrease with greater duration of residence (Kaplan et al, 2002; Landrine & Klonoff, 2004), as was observed in this review.

Differences in country of origin could be attributed to epidemiological transition (mortality and morbidity trend from infectious to degenerative and manmade diseases) (Frenk et al, 1991), for example Mexico is undergoing an epidemiological transition similar to developed countries, with more inhabitants being urbanised and living a less active lifestyle and relying on cheaper high calorie foods (Rivera et al, 2001). Migrant obesity rates may also be attributable to nutritional transition (Delavari et al, 2013) which happens in the host countries whereby migrants from low income countries locate from agrarian societies (who consume fresh foods and undertake regular physical activity) to an environment where they have easier access to processed goods and fewer opportunities to undertake daily physical activity. For example, within the USA, Latino migrant populations reported a higher

consumption of fast foods and consumed inexpensive convenient foods that had high calories (Perez-Escamilla, 2010). It is proposed that the rate of transition is quicker in a migrant population than an already settled population, which accounts for the greater changes in body weight. However, an alternative explanation is that economic rather that cultural drivers influence food choices and associated obesity rates, with migrant populations purchasing low cost, readily available high calorie foods. Income inequalities have been proposed to influence obesity rates (Pickett et al, 2005), although it may be that lower socioeconomic status acts as a stressor encouraging the uptake of unhealthy behaviours (such as physical inactivity and consumption of unhealthy foods) as a maladaptive coping strategy. Migrants' socio economic circumstances may affect their ability to afford healthy foods and opportunities to be active; thus increasing their chance of engaging in unhealthy behaviours, increasing their risk of becoming obese. The adoption of unhealthy behaviours could also be attributed to acculturative stress (Caplan, 2007), which is the psychological impact of adaptation to a new culture whereby an individual may be exposed to a range of short and long-term significant stressors. Acculturative stress emphasises the process of acculturation as stressful, whereby migrants are likely to exhibit maladaptive behaviours due to stressors such as low socioeconomic status, limited availability of family for social support and perceived or actual discrimination (Anderson 1991).

Further research is needed to examine the role of the socioeconomic status of migrants and the role of cost, convenience or pragmatic concerns (e.g. how to prepare novel foods) in decisions around food choices. Furthermore, macro-level forces, such as low cost, high calorie foods (and the aggressive marketing of these), transport and neighbourhood factors

may be significant drivers in the global increase in obesity that operates over and above those changes observed by acculturation factors.

There were a number of limitations across the included studies. Some studies relied on self-reported height and weight data to calculate body mass index, which is known to be associated with misreporting and an underestimation of obesity (Gosse 2014). Furthermore, ethnicities that are more appreciative of a heavier body weight might misreport their weight, resulting in unreported obesity. Identifying this potential for under-estimation may highlight a lack of obesity risk awareness amongst individuals. Most studies did not examine the BMI of migrants in their home countries before they migrated, to ascertain if these participants were classified as obese on arrival in the host country or if the weight gain was as a result of changes in behaviour following arrival in the host country. Most studies were cross-sectional, thereby precluding the exploration of changes in migrant weight and health behaviours over time. None of the studies reviewed took into account natural weight gain, which could have been a confounding variable, however it be useful for future research to explore this. Furthermore, the studies did not allow exploration across populations or examine the various drivers that affect changes in health behaviours and ultimately changes in weight over time.

The findings of this review have important implications for the development of culturally appropriate health-psychology led interventions to support the health of increasingly diverse populations. It is important to highlight the role played by acculturation on the health of people migrating from middle or low-income countries to high income countries. Evidence shows that acculturation could either enhance healthy behaviours or act as a barrier to the

engagement of healthy behaviours. Evidence from this review suggests that health interventions should target early migrants (first generation) to promote retention of their original healthy behaviours. Recent migrant groups report healthier behaviours than comparative host country populations, and therefore interventions should be promoted at the initial stages following migration to avoid uptake of unhealthy behaviours. Tovar et. al, (2014) found that health interventions rarely account for specific acculturation factors (language, country of origin, length of stay) that are associated with obesity. Furthermore, interventions with a community based approach (Cullen et. al, 2009; Schwartz et. al, 2013; Ziebarth et. al, 2012) have been shown to be effective because such interventions target factors of direct relevance to specific populations (are culturally sensitive) and utilise community resources with the potential to lead to increased uptake and lower attrition rates (Israel et. al, 1998).

The process of acculturation has the capacity to be either protective, or detrimental, to health outcomes through the promotion of either positive or negative health behaviours. Future research is needed to explore what it is about the acculturation process that leads to adoption of unhealthy behaviours. Findings could help target interventions to promote positive health behaviours amongst migrant populations and to improve health outcomes through culturally sensitive interventions to encourage the retention of existing, or the adoption of novel, healthy behaviours.

CHAPTER 3

METHODOLOGY

Introduction

This section looks at the methodology used for the qualitative research. It gives an overview of the overall research design and reasons why the particular methods were chosen. Further, it describes the methodological procedures used in the subsequent chapters under the heading methodology for chapter four and methodology for chapter five. For coherence and transparency, I am presenting this as one methodological chapter.

Epistemology and Ontology of the Research

Part of this thesis is based on qualitative research ideology. Qualitative research was chosen because it helps explore more of a phenomenon and also helps make meaning out of life experiences (Smith, 2015), something which is limited in quantitative research. The use of qualitative methodology in health research helps generate rich data (Higbed & Fox, 2010). The philosophical underpinning to this research was based on phenomenology to help understand the meanings of experiences as well as their significance. Reasons for qualitative method being the best method for exploration is explained in the coming paragraphs, and it helps identify new perspectives on the topic of discussion.

 Qualitative methodology was suitable because it enabled more exploration and further understanding of emerging issues relating to health, and these issues were further explored in different study. The use of qualitative methods is essential in research relating to health because it helps to explore perspectives and experiences of participants (Pope & Mays, 1995). Qualitative approaches have been gaining recognition in the field of health research (Elliott, Fischer, & Rennie, 1999) because they are used to explore the subtle and sensitive nature of health beliefs and behaviours.

The epistemological standpoint of this research was based on a constructionist paradigm. This paradigm helps to understand how respondents construct knowledge from their own experiences. According to Phillimore and Goodson (2004), a good qualitative researcher constructs meaning of the world from the perspective of their respondents, and views the meaning of life as a result of interpretation and interaction with society. The aim of the thesis was to explore health and illness beliefs hence the use of qualitative methodology (Smith, 2015) . In the first study respondent's daily lives were explored to understand their perception of health and unique experiences, with the notion that responses are socially and culturally influenced. Findings from the first study were then used to develop the next study which was informed by theory. Analysis of the second study was based on 'a priori' knowledge.

Research observations

In qualitative research, methodology and data analysis and interpretation are connected; it may be influenced by the perception and bias of the researcher (Mauthner & Doucet, 2003). It is therefore important for the researcher to highlight his/her background through a reflective process. I am Ghanaian, who came to the UK to study. I was born and raised in Kumasi, Ghana. I speak English and Twi (a Ghanaian language). I consider myself as a migrant in conducting this research. Being a migrant is likely to affect some parts of this research in recruitment, data collection and analysis. Some Ghanaian migrants were impressed by the fact that I was engaged in research with Ghanaians. The Indian migrants were glad to speak to a fellow migrant about issues concerning their health. I was also aware of the fact that being a female could influence responses of male participants who took part

in the studies, because of this the interview schedule was designed in a way to probe and ask questions that served as check (e.g respondents were asked to narrate their daily activities, and also asked if they were healthy and why might they think that revisiting at their activities done in the day). Engaging older Ghanaian men in interviews meant I had to be careful with the words I used in order not to sound rude and give them the due respect as elders in a community. Having a shared ethnicity or experiences with participants could be of an advantage, because it helps you the researcher to explore into more detail (Ritchie, Lewis, Nicholls, & Ormston, 2013).

Research design

Participants Sampling

The sampling method for the thesis was purposive because it allows the researcher to capture rich and relevant data (Tong, Sainsbury, & Craig, 2007). The participants shared particular characteristics and unique experiences. The participants for chapter four were migrants from Ghana and India and the white British population in the UK. The migrants should have been in the UK for more than a year using the definition of migrant from the United Nations definition for migration (Anderson and Blinder, 2017), one year of stay, is enough time to study patterns of behaviour that may have been contributed by the new environment. All participants used in the various studies were aged over 18 years old. Throughout the studies participants were selected in such a way as to create equal representation in terms of age, sex, marital status, in order to identify patterns of similarities and differences and to create a maximum variation sample (Sandelowski, 1995).The sample for chapters five included Ghanaian men residing in London and Ghanaian men residing in Kumasi, Ghana. Purposive

sampling was employed because the target group was older men above the age of fifty years, to achieve equal representation; the sample from Ghana was mapped with the sample from the UK according to age, marital status, employment and level of education (stratified table included in the appendix 13).

The research is a qualitative exploration of beliefs about health and illness of migrants; the findings of the research are presented in this thesis. There are four groups of participants in this thesis, Ghanaian migrants in the UK, Indian migrants in the UK, Ghanaians in Ghana and the white British population. The white British population was added to the sample to enhance the richness of the data and also identify commonalities with the migrant sample. It was important because the health and migration literature attributed changes to migrant health as being affected by the interaction with the host culture, so it is very important to include the white British population to identify similarities. The Indian population was included in the research because the Indian migrants form one of the largest ethnic minority group in Birmingham, UK, it is important to have a majority ethnic minority group to see the differences, similarities and factors that promote healthy or unhealthy behaviours in a well-established group like the Indian migrants in the UK.

Data Collection Procedure

A range of methods was used to obtain participants for the studies. Study one, making up of chapter four utilized posters to recruit participants. I visited churches and community groups specific to Ghanaian and Indian migrants, I initially sent emails and made phone calls to these groups and was invited to their meetings. In some of the meetings, I talked about my research and the importance to these groups. After the sessions, interested persons contacted me or I was directed to people that fit the target population and further contact was made

from there. In chapters five, I used contacts I had made in my previous recruitment to identify people who would help identify potential participants. Snowballing was used because a very specific stratified table was created to identify participants and as such the snowballing technique was the only way to get each criterion. According to Browne (2005) snowballing technique, is effective in identifying participants from a "hard to reach" sample. The studies used specific people, stratified by ethnicity, place of location, sex, age, marital status, level of education and employment status. Participants were allowed to choose a place of their own convenience for the interviews. They were carried out in participants' homes; some interviews were also conducted in the university, a room set aside for interviewing. The project supervisor was informed of the whereabouts of the researcher at any point in time.

Sample size

The research utilized a total sample size of sixty-two participants. The first study (chapter four) had thirty-six participants and the second study (chapter five) had a sample of twenty-six participants. The studies in this thesis were mainly comparative and as such required multiply samples, we also aimed at stratifying the sample; these however made the sample size seem larger than most qualitative studies. The original aim of study one (chapter four) was to have a total sample size of 45 but had 36 Likewise study two (chapter five) which aimed at a total sample size of 30 but had 26 in both cases this was due to time constraints and finances. It was a pragmatic decision to stop recruitment due to issues with time and budget.

Research instrument (Interview guide)

This thesis used a semi structured interview guide because it allows exploration of key issues (experiences of participants) and meaning of these experiences to the participants (Arthur, Mitchell, Lewis, & Nicholls, 2014). Interviews help to explore the complexities in research in health (Bowling, 2014). The research instrument was piloted with participants from the samples used, this helped to identify the strengths and weaknesses of the instrument, feedback from the participants helped to fine tune the interview schedule. The interview schedule for data set one took a more open approach. Participants were asked probing questions based on responses given. The interview schedule for data set two was guided by theory, it adapted sections of the illness perception questionnaire in a qualitative way. The main components of the questionnaire were open ended. An example on illness perception asks about the "Cause" of an illness and gives options such as germs, stress or pollution for participants to choose from, but in a qualitative way, I asked, " what do you think caused your illness", taking a more open approach, and further asking why they think their answer given caused their illness. The average time spent for all interviews was about an hour.

Recruitment challenges

Research with ethnic minority groups comes with its own challenges (Redwood & Gill, 2013), issues concerning accessibility, language and knowledge on research could be a hindrance in identifying and recruiting ethnic minority groups. Usual methods for recruitment like advertisement by posters or emails or the internet might not be useful in recruiting ethnic minority groups and as such a wide range of methods was employed. This was done to help all groups to understand and be willing to participate. According to Lloyd et al. (2008) if research materials are presented in a way ethnic minority groups may

understand they will be willing to engage in the research. Identifying and contacting communities (physical or social) is useful in the recruitment of these groups. Ghanaian community in the UK comprises associations and Ghanaian run churches. As a Ghanaian, recruiting from a Ghanaian community, it was encouraging because of the shared cultural and language background. The White British participants were recruited through the posters and recommendation from people I approached. The Indian samples were recruited through the use of posters and snowballing. Overall response rate was good, about 90% of participants contacted took part in the interviews, and the remaining 10% could not be interviewed due to unavailability.

Ethics

Ethical approval for the studies was obtained from the University of Birmingham on submission of a research protocol outlining the ethical considerations (see appendix 7 and 8 for the ethical approval forms). There was no need for NHS ethical approval because I did not recruit through NHS services. The studies were guided by the ethical guidelines of the University. The study was open to all migrants that fitted the inclusion criteria. A decision was made that if participants revealed their undocumented status, it would not have any influence on the research process. This however could have been a self-selecting exclusion criterion in that undocumented migrants may not have chosen to take part in the interview as we had no participants fitting the description of undocumented.

Good Practice

Participants for the studies all gave consent by signing an informed consent form. They were assured of confidentiality. Data from participants were all stripped of any identifiable information; transcripts were assigned pseudonyms (all participants were given false names or letters of the alphabet). Participant's information was stored on a university computer and an external hard drive. Participant's details written on paper were safely stored at a secured cabinet in the University of Birmingham. All data from participants will be stored according to the University of Birmingham ethical code of practice for 10 years and then it will be destroyed.

Data analysis

A comparative approach to analysing the data was taken to identify the similarities and differences in experiences and perceptions between the various samples used. A disadvantage of comparison using qualitative data is that there might not be clear-cut differences or similarities between samples used.

Thematic analysis is not seen as a methodology but an analytical method providing a basis or the foundation for further interpretation, and as such the framework approach was further used to enhance the richness of the data (Braun, Clarke, & Terry, 2014). Thematic analysis allows for theoretical freedom to explore the data. Initially the Interpretative Phenomenological Approach (IPA) was considered as an approach for the thesis methodology but was seen to be unsuitable because IPA explores detailed meaning and lived experiences of participants (Larkin, Watts, & Clifton, 2006) more importantly the phenomenon under study has to be similar across participants. IPA however was unsuitable for this research as experiences pertaining to one's health varied from person to person. A

discourse analysis approach was also investigated but was however deemed not appropriate as its more around analysis based on language used to describe experiences, as most of the participants were not native English speakers, it was however decided that meaning might be lost if a discourse analysis approach was taken. A framework analysis approach was deemed appropriate for the research because its employs a thematic approach to analysis. The framework approach to qualitative data analysis is a useful tool for analysing large qualitative datasets; it allows comparison of unique experiences and has no underlying philosophies (Gale, Heath, Cameron, Rashid, & Redwood, 2013). The framework analysis method was deemed appropriate for this research because it helps with management of data from in-depth and extensive interviews with participants with diverse socio cultural background. It's an effective form of qualitative analysis for conducting multi-disciplinary health research (Gale et. al, 2013). Upon deliberation with my supervisor the framework analysis method was chosen because of the comparative nature of the research. This approach helped manage the data by building a framework based on case and themes such that clear patterns were easily identified. Based on this analytical observations could be made. For example differences in age, gender or country of origin could be used to analyse a specific phenomenon (e.g. gender differences in lay meaning of health). Framework analysis was used for the two major data sets used in thesis.

Framework analysis

The framework analysis method was deemed appropriate for this research because it helps with management of data from in-depth and extensive interviews with participants with diverse socio cultural background. It's an effective form of qualitative analysis ideal for conducting multi-disciplinary health research (Gale et. al, 2013). Upon deliberation with my supervisor the framework analysis method was chosen because of the comparative nature of

the research. This approach was ideal because it helped manage the data by building a framework based on case and themes such that clear patterns were easily identified. Based on this analytical observations could be made. For example differences in age, gender or country of origin could be used to analyse a specific phenomenon (e.g. gender differences in lay meaning of health). Framework analysis was used for the two major data sets used in thesis. Findings from analysing qualitative data using the framework approach re more transparent (Gale et. al, 2013). Framework analysis is transparent based on concepts, typologies, similarities and differences (Ritchie & Spencer, 2002).

The data went through a systematic, rigorous and robust way of analysis. It followed the five major stages of using framework approach as described by Pope and Mays (2013). Unlike other qualitative analytical method, the framework approach is explicit, the analysis can be understood by others other than the primary researcher (Pope, Ziebland, & Mays, 2000). Gale et al. (2013) advise that researchers new to this approach should be supervised by experienced qualitative researchers in the field of framework analysis.

The data analysis first started with the process of familiarization, audio tape recordings were listened to, to ensure that there were no mistakes with the transcription and also to become familiar with the emerging ideas and re occurring concepts. Familiarisation allows you to immerse yourself in the data, understand the data in its raw state and to note crucial points down, which are useful during the analytical stage (Braun et al., 2014). The notes taken at the familiarization stage served as markers (important point to note) in the coding process. After getting familiar with the datasets, the next stage was to code. The transcripts were read and codes were assigned to key meanings and experiences of health. Codes are important because they form labels of important analytical points (Smith, 2015) . This process was

done by myself and the principal supervisor who was more experienced in using framework analysis approach.

This was then followed by the identification of themes. The codes were put together to form a theme (broader meaning), however some strong codes were made themes. This process was iterative because the themes generated had to reflect the aim of the research and so themes had to be collapsed and regenerated to bring out more meaning.

A matrix was built in excel with the thematic frame generated with themes and subthemes matching each participant (cases matching themes). The framework analysis approach was adopted because it made data manageable, could always refer to the original data and it allows for transparency in data analysis (Pope et al., 2000). This process was done independently by the researcher and the principal supervisor for the first four transcripts. It was further discussed to finalise the themes, even though most of the themes identified were similar, differences were discussed and a consensus was agreed on. A thematic framework was developed from the themes; this helped to manage the data into readable formats. The analysis was an on-going process for the researcher and the principal supervisor to get feedback on improving the quality of the analysis. The final process was interpreting the data. However this process began from the onset of the research process where notes were taken on salient points from the discussion and familiarisation process. With the development of the framework table, similarities and differences were easily explored.

During the initial stages of coding and grouping of emerging themes, N-Vivo was used to store and manage the data. But subsequent development of the frame in excel was carried out manually. During the process of analysis, I took a reflective stance as participants

experiences resonated with my experiences as a migrant and Ghanaian. The opinions of the principal supervisor helped because her views were that of an outsider.

Methodology for Chapter Four (Dataset one)

I will describe the methodology used for study one. Findings from this methodology are presented in Chapter 4. Ethical approval for the study was obtained from the University of Birmingham ethics committee (Ethics form attached as appendix 17). The consolidated criteria for reporting qualitative studies (COREQ) (Tong et al., 2007) were adhered to.

Setting

In this study, a migrant was defined as a person who had resided in the UK for 12 months or longer legally or illegally, voluntarily or involuntarily (IOM, 2013). The study sought to include an established minority group within Birmingham (migrants from India) and one new or growing minority group in Birmingham (migrants from Ghana) as support structures and familiarity with health services might differ across these groups. According to the Office of National Statistics (ONS, 2016) there are around 700,000 migrants from India residing in the UK and almost 96,000 migrants from Ghana. A White British-born sample (defined as native born with both parents also being native-born British) was included to identify comparable health beliefs within the UK. Data were collected in Birmingham, which is the second most populated city in the UK with a population of over one million within the city and approximately 3.6 million within the wider metropolitan area. The area has great ethnic and racial diversity and has been labelled one of the most diverse cities in the UK, with over 170,000 new migrants each year (ONS, 2016). The growing number of migrants in Birmingham has created a "super" diverse community as Vertovec (2007) will call it.

Participants and procedure

The sample was stratified by country of origin, gender and age. Potential participants were identified (face to face and through posters) through community groups (including churches and neighbourhood associations) in one major UK city. An information sheet was handed out to interested participants by hand or by email prior to the interview (see appendix for informed consent sheet for participants). A follow up call was made a week after to inquire if they were interested in the study and when they might be available for an interview. The participant also had the opportunity to talk through anything on the sheet which they wanted clarification on. They were given an opportunity to ask questions before signing the consent sheet. Participants who agreed to take part in the study after the follow up call were booked for an interview within 2 to 14 days depending on their availability. Individual face-to-face interviews were then arranged and undertaken at a location that was convenient for the participant (home or workplace) and participants were compensated for their time with a £10 shopping voucher. Participants were given a week to withdraw from the study after the interviews, after which the data will be deleted.

Indian participants: The Indian sample were identified face to face and through posters placed on notice boards at the University of Birmingham and some convenient stores. An information sheet was handed out to interested participants by hand or by email prior to the interview (see appendix 6). A follow up call was made a week after to inquire if they were interested in the study and when they were available for an interview. They were given an opportunity to ask questions before signing the consent sheet. Participants who agree to take part in the study after the follow up call were booked for an interview within 2 to 14 days depending on their availability. Individual face-to-face interviews were then arranged and

undertaken at a location that was convenient for the participant (home or workplace) and participants were compensated for their time with a £10 shopping voucher.

Ghanaian participants: The Ghanaian sample was identified face to face and through posters placed on notice boards at the University of Birmingham and some convenient stores. This sample was also recruited through community groups (including churches and neighbourhood associations). An information sheet was handed out to interested participants by hand or by email prior to the interview (see appendix 6). A follow up call was made a week after to inquire if they were interested in the study and when they may be available for an interview. They were given an opportunity to ask questions before signing the consent sheet. Participants who agree to take part in the study after the follow up call were booked for an interview within 2 to 14 days depending on their availability. Individual face-to-face interviews were then arranged and undertaken at a location that was convenient for the participant (home or workplace) and participants were compensated for their time with a £10 shopping voucher.

White British: The White British sample was identified face to face and through posters. An information sheet was handed out to interested participants by hand or by email prior to the interview (see appendix 7). A follow up call was made a week after to inquire if they were interested in the study and when they may be available for an interview. The participant is also taking through anything on the sheet which they want clarification. They were given an opportunity to ask questions before signing the consent sheet. Participants who agree to take part in the study after the follow up call are booked for an interview within 2 to 14 days depending on their availability. Individual face-to-face interviews were then arranged and undertaken at a location that was convenient for the participant (home or workplace) and participants were compensated for their time with a £10 shopping voucher.

All participants were given a week to withdraw from the study after the interviews, of which the data will be deleted. Recruitment and interviews with participants took place between December, 2013 to July 2014. Forty-two people who were either approached or contacted directly about the study were provided with information. Six people (response rate 86%) declined to participate after receiving further information about the study and reasons for non-participation included lack of time to participate or the researcher being unable to arrange an interview at a convenient time and suitable location.

Interview schedule

An interview schedule was developed and based on an adapted Life History Interview approach (Goldman et al., 2003). The aim of this study was to explore beliefs about health among Ghanaian and Indian migrants as well as the white British population residing in an urban area within the UK. This approach was chosen as it focused on the lived experiences of migrants, their personal stories and offered an in-depth account of specific experiences relating to their health beliefs. This approach was considered suitable because the research aimed to explore participants' understanding of their own health. An interview guide was developed comprising open-ended questions to allow the discussion of participant-centred issues as they emerged. The interview focused on the participant's daily life in the UK and they were asked to describe a typical day and then from this specific questions relating to their health were introduced. The interview guide was pretested on three participants (across the groups), it was further modified to add probing questions on participant's perceptions of their health and how participant's maintained health. Interviews lasted between 45 and 80 min (mean 60 min). Interviews were audio recorded and transcribed verbatim. Transcribed data was checked against initial original recordings. To ensure confidentiality, each

participant was assigned a pseudonym and this was used, rather than their own name in the analysis and presentation of findings.

Data analysis

The transcribed data was analysed thematically using a Framework analysis approach (Ritchie & Spencer, 2002), allowing comparison across participants in order to explore both commonalities and rare cases. All themes emerged from the data (inductive coding) as the adapted Life Histories approach facilitated the sharing of personal and distinct experiences.

Two researchers (LA and EAG) read the first four transcripts and undertook an initial coding process to identify meanings and developed a preliminary framework. The remaining analysis was undertaken by one researcher (LA) with continued discussion throughout the analysis process with the supervisor EAG. Differences that emerged were discussed and a consensus reached between the two researchers. Transcripts were read to identify relevant meaning and initial free codes were created. With the aim of the research in mind codes were grouped into themes and sub-themes. This was then developed into a thematic framework for the rest of the data. A concise framework was further developed to reflect the aim of the research. During the process of familiarisation, notes were made of initial thoughts on what was going on in the individual transcripts. This formed the basis for the whole analytical process. Clearly from the interviews there were differences in how males and females described health. This was however noted, during the process of reading and gaining familiarity with the transcribed data, it was further grouped into the unique codes under the way they described their health.

Table 3.1: An example of the analytical process

Codes	Thematic Organisation	Analytical process
Good mental health Absence of disease No need in using healthcare services	Attributes of health (male perspective)	These codes were noted when male participants described their health
Eating habits Physical exercise	Attributes of healthy (female perspective)	Participants described their health relating to these areas, that is why I grouped then under attributes of health

Table 3.1 shows a sample of the initial analytical process from notes made. This was further regrouped to show distinctiveness between male and female respondents. Themes that emerged from the study went through similar process (see Appendix 9).

These codes were grouped to form coherent themes. The identified themes were then integrated across each participant to form superordinate themes. A matrix was developed, with the identified codes and themes. Within the framework matrix, summaries of quotes, interpretations and notes were made under each category. These summaries were presented into the cells corresponding with the participants and themes. There was a discussion with EAG to identify the patterns across codes and themes as well as differences and similarities.

This method allowed the data to be managed in such a way that facilitated effective interpretation and explanation of patterns and as data was organized according to case and theme, this allowed analysis across themes (thematic analysis) and within cases (case analysis). The framework created also allowed identification of common themes, their interactions and relationships between participants.

Table 3.2: An example of codes identified under the theme "attributes of what is healthy"

	Rows			
	Attributes of Health			
Participant characteristics (Pseudonym, sex, age and ethnicity)	Healthy diet	Engaging in Physical activity	Not visiting the GP	Body shape/weight
Ken, male, 27 British				

The leftmost column is labelled **Columns** (rotated, spanning the full height of the table).

Methodology for Chapter five (Dataset two)

Findings from this dataset are presented in Chapters 5. Migrant and a home population were chosen to explore the differences and commonalities in the two environments. It is important to understand the psychosocial behaviour underlying migrant's health behaviour. Understanding migrant health behaviour through the Common Sense Model (CSM) (discussed in chapter 5) of illness behaviour will help develop effective interventions to promote health. It will help understand behaviours that lead to the use of preventative care. There is currently no research that has investigated illness perception with a migrant group and their home population.

Ethical considerations: Ethics for this study was obtained from the University of Birmingham Ethics Committee. The issues on ethics centred mostly on privacy, confidentiality and informed consent. (Ethics form is attached in appendix 18).

Participants and sampling

Respondents for this study comprised 13 males from London, United Kingdom and 13 males from Kumasi, second largest city in Ghana. Qualitative research data have smaller sample sizes because of the need for rich data than prevalence (Ritchie et al., 2013). Data was collected using a semi structured interview guide. Respondents were purposefully sampled according to some socio demographics factors such as age, level of education, marital status and employment status. Table 3.3 is an example of the stratified table used to identify participants. It was important for the sample to be stratified as the study aimed to explore common experiences as well as differences. The snowball technique was used to identify respondents. Recruitment of participants as well as interviews in Ghana were done in January and February, 2015. Recruitment and interviews with participants in London took place between April to July, 2015. Recruitment was first undertaken in Ghana because it was easier to get all the participants needed in a shorter duration. Recruitment was later done in London to match up the participants from Ghana. It was a pragmatic decision to collect the data in Ghana first given that I had an extended visit to Ghana and the journey was self-funded. However it was difficult to match up participants in London.

Table 3.3: Example of stratified table used for selecting participants

	Participant 1	**Participant 2**
Location	**UK**	**Ghana**
Participant characteristics	Married	
	50-65	
	Tertiary	
	Not working/retired	

The first respondent introduced the subsequent respondents. To be eligible for this study one had to be a Ghanaian male above 50 years, for those in London they should have been in the UK for over a year and of Ghanaian descent and for those in Ghana must have resided in Ghana for at least 12 months prior to the interview and be Ghanaian by birth. Similar technique was used in Ghana, the first respondents led to introduction of other respondents. The sample varied in terms of age, educational level and marital status in both locations.

Potential participants were then contacted and briefed on the research. They were asked if they would like to participate in the study and on agreement were asked for a date, time and place for the interview. All interviews took place in participants home. The participants were given an informed consent sheet prior to the interview detailing the aims of the research. Participants signed the informed consent sheets before the interview. They were also assured of anonymity.

Procedure and interview schedule

Face to face semi-structured interviews were conducted. Interviews were carried out mainly in respondent's homes. Interviews in London were all conducted in the English language while some interviews in Ghana where by necessary had to be conducted in the Twi language. All interviews were audio taped with the consent of the respondents. The interviews were conducted by the principal researcher (LA) who is Ghanaian and speaks both English and Twi fluently. The Twi interviews were translated into English by the principal researcher and were checked for any inconsistencies in meaning by an independent Twi language professional. The interview schedule adapted questions and probes from the common sense model (Leventhal, Phillips, & Burns, 2016). The common sense model informed the design of the interview guide. It was designed to gather information on

participants' illness representation, coping strategies and perception of help seeking sources. The section on illness representation comprised five sections gaining insights on identifying illnesses. The second part probed and identified causal beliefs relating to the identified symptom of ill health. The third was the timeline, that was how long or the likely duration the participants gave to the illness. "Consequences" was the fourth part, questions on perceived consequences of the identified illness were asked. Cure and control was the final part of the interview guide, participants were asked how they controlled their illness, things done to manage it. The interview guide was broadened to allow participants to narrate instances of ill health; it was not confined to a particular illness as most research had previously done. The model shows that illness representation is likely to affect one's help seeking. Questions asked include what actions respondents took in terms of ill-health and the probable cause of their ill health. Questions on different help seeking sources were asked and also about respondents preference and reasons for their choices of help seeking. Respondents in London were asked about differences in experiences, perceptions and choice of help seeking in Ghana compared to the UK.

Analysis plan

The data was transcribed and analysed using the underlying principles of the framework approach. All interviews were transcribed verbatim. First transcripts were analysed using the thematic analysis approach by Braun and Clarke (2006). Transcripts were read carefully to identify units of meaning (codes). The codes generated were then grouped into themes to bring out the meaning of experiences; this process produced minor and major themes guided by the CSM model. The codes that were generated were grouped into themes (broader meaning of the codes).

The data was further read to ensure the themes were given the right name and labels. It was further reviewed to ensure the codes assigned to themes were meaningful and relevant. The process of coding and development of themes was done independently by the myself and EAG. Differences that emerged were discussed and a consensus was drawn.

The process was followed by the development of a thematic framework with the common sense model as the basis for pulling out issues about beliefs and culture. The framework method of analysing qualitative data was the ideal method of analysis because the analysis was based on 'a priori' reasoning. The analysis compared responses of the two main sample groups to note any pattern of differences between the two. Table 3.4 show the analytical process of assigning categories to the five classes (Identity, Timeline, Cause, perceived consequences, cure/controllability), which originated from the CSM model.

Table 3.4: Example of analytical process under "identity"

Classification	Example of Quote	Categories	Analytical idea
Identity	*You know, in most of these cases, because I knew what I did before it came, I knew that it might be something not too serious. But if it had been something like a heart problem, like some sharp pains in the heart, then immediately I will go. I will not even try to wait for a second. I will immediately go and see them.*	Lay beliefs on causes of illness Symptom interpretation	Some symptoms perceived as serious and needs immediate medical attention Other symptoms normal and therefore self-managed

Summary

This chapter has described the aims of the research, explained the various methods used for data collection, management and analysis. I took a reflective approach of how data was collected and analysed using the framework approach. I have outlined the challenges to recruitment and ethical considerations.

CHAPTER 4

CULTURAL AND GENDER DIFFERENCES IN BELIEFS ABOUT HEALTH: A COMPARATIVE QUALITATIVE STUDY WITH GHANAIAN AND INDIAN MIGRANTS AND WHITE BRITISH PARTICPANTS LIVING IN THE UNITED KINGDOM

Findings from chapter two, suggested that higher acculturation might result in weight gain. Factors such as low socioeconomic status, inability to understand language thereby inability to read food labels, eating unfamiliar foods and also a more relaxed lifestyle devoid of active physical activity could account for the weight gain (Ahluwalia, Ford, Link, & Bolen, 2007; Chen, Juon, & Lee, 2012; Delavari, Sønderlund, et al., 2013). Over time, migrants begin to adopt lifestyle behaviours (obesogenic behaviours) of host countries (lower levels of physical activity, increased consumption of high calorie foods leading to obesity and its associated complications (Renzaho, Swinburn, & Burns, 2008; Smith et al., 2012). This chapter is a study to understand beliefs around health and also factors that facilitate healthy and unhealthy behaviours.

Introduction

The United Kingdom is a major destination for international migration; between 1993 and 2011 the foreign-born population in the UK almost doubled from 3.8 million to around 7.0 million. The population of the UK is very diverse consisting of various ethnicities, common and populous of them are the Indians, Pakistanis, and Polish. Increased migration accounts for this growing ethnic diversity. There is a well-established association between migration to high income countries and health status, with some groups reporting poorer health outcomes over time than the host population (Jayaweera, 2011; Natarajan, 2006). However, the relationship between migration and health is dependent upon a number of factors including ethnicity, migration status (voluntary or involuntary migration), age and gender (Bécares, Cormack, & Harris, 2013). Other factors such as long hours of work, unemployment, poorer quality housing, stress and poor command of the host country's primary language can have detrimental impacts on migrant health outcomes (Helman, 2007).

Furthermore, migration influences lifestyle choices and health behaviours, with evidence of changes in dietary pattern due to challenges incorporating traditional foods and increased consumption of processed food (Gilbert & Khokhar, 2008). Results from chapter two showed that obesity is a great public health concern for most developed countries including the UK, it is one of the major causes of mortality and accounts for 6% of all deaths (Banegas, Lopez-Garcia, Gutierrez-Fisac, Guallar-Castillon, & Rodriguez-Artalejo, 2003). As a consequence, we see an increase in chronic diseases among migrant populations, for example cardiovascular disease, stroke and Type 2 diabetes are more prevalent among people of South Asian ethnicity (e.g. Indian, Pakistani and the Bangladesh) in the UK (Gholap, Davies, Patel, Sattar, & Khunti, 2011; Harding, Rosato, & Teyhan, 2008). Furthermore, migrants from African countries are at a higher risk of developing chronic diseases than those that do not migrate (Dominguez et al., 2008). People of African descent living in Europe have high incidence rates of stroke, diabetes and hypertension (Agyemang, Addo, Bhopal, de Graft Aikins, & Stronks, 2009) and this may be attributed to differences in individual health behaviors (e.g lay beliefs on health) or the socioeconomic circumstances of migrants (Factor, Kawachi, & Williams, 2011). Lay beliefs are important in health promotion. Understanding how individuals make sense of health, and empowering lay communities to adopt healthy practices to prevent chronic illnesses, is an important first step to developing practical interventions to improve health outcomes among migrant populations.

However, studies that have examined health beliefs and behaviours have tended to aggregate findings from migrants across different countries of origin or have examined single groups from specific countries of origin, or ethnicities, in isolation. However, aggregation at this level does not recognize that the subgroups are heterogeneous in their beliefs and behaviours

(Bhopal, 2002). Focusing on ethnicity might also lead one to disregard socioeconomic differences within minority ethnic populations or to adopt generalized assumptions about minority ethnic groups (e.g. that all members of particular minority ethnic groups are economically disadvantaged).

In addition, there may also be the assumption that there are inter, but not intra, sharing of common beliefs and behaviours across minority ethnic groups. Processes that influence health behaviours and health outcomes across minority ethnic groups are complex; a range of super diverse factors influence or drive health behaviours. The patterning of such factors may, or may not, depend upon ethnicity-based groupings, and although people might be classified as the same ethnic grouping, culture ascribes specific gender roles for men and women, which can further influence perspectives of health (Helman, 2007). For example, women, as a consequence of being "genetic housekeepers" or information holders within families (Richards, 1996),are more likely than men to cite heritable factors as causes of conditions such as breast cancer, heart disease and arthritis (Marteau & Senior, 1997). However, much of the research in this field has been conducted with Western populations and more work is needed to understand the role of gender in moderating cultural diversity in beliefs about health. The aim of this chapter was to explore beliefs about health among Ghanaian and Indian migrants as well as the white British population residing in an urban area within the UK. Most studies evidently show the influence of environment on physical activity and diet (Delavari, Sønderlund, et al., 2013; Feng, Glass, Curriero, Stewart, & Schwartz, 2010; Sallis & Glanz, 2006) but less is known about the effects of the environment on physical activity and eating behaviours. This chapter also aims to explore experiences of changes in health and behaviours of Indian and Ghanaian migrants in the UK.

Results

The sample comprised 36 participants aged between 20 and 60 years (mean age 38 years). The duration of residence in the UK for both the Ghanaian and Indian participants ranged from eighteen months to ten years (mean 3.8 years). Some of the themes to be discussed are (a) lay beliefs about health, (b) symptom interpretation (c) self-management and help seeking, (d) body perception, (e) physical environment conducive in promoting physical activity (f) the impact of weather on health behaviours, (g) the role of family and peers. Table 4.1 highlights the characteristics of participants used in chapters 4 and 5. A total of thirty six participants were involved in the study. The mean age was thirty eight years, with most of the participants single or never married, all participants had an A-level or higher level of education.

Table 4.1: Socio demographic characteristics of sample (N=36)

	White British	Indian	Ghanaian
Age mean, y	38 (range, 20-60)		
Gender			
Male	6	6	6
Female	6	6	6
Marital status			
Married	4	3	5
Single (never married)	8	9	7
Education			
A-level/Equivalent	3	2	2
Degree/Higher level	9	10	10
Time since arrival			
Between 1 to 5 years	-	8	8
5 years+	-	4	4

Lay beliefs about health

Descriptions of the meaning of health and what it means to be healthy encompassed a range of lay beliefs around the absence of disease, not seeking help for illnesses, healthy eating and adequate physical activity. In discussing the general issues about health, and why one considered him or herself to be healthy, participants often attributed wellness to the performance of behaviours such as making appropriate food choices and engaging in regular physical activity. There was a belief shown across all country of origin groups that diet and exercise were key to good health and that individuals needed to take responsibility for such behaviours.

> "*I try to take a reasonable amount of fruit and vegetables. I try not to have too much caffeine, I try to be aware of how much sugary stuff I am having.*" *(Sai; female, 28, Indian)*

On further probing of what it meant to be healthy participants attributed wellness to, not only eating healthily, but also the absence of illness and avoidance of curative health services. A Ghanaian participant defined good health as not having any illness that was severe enough that would require him to go to the hospital, or to see the GP (general practitioner). In these cases being healthy was not a consequence of personal behavioural choices but rather good luck. Staying away from healthcare services was frequently given as a definition of being healthy, predominantly by male participants from India and Ghana.

> "*I think I look healthy because for the past 12 years I had never been to the hospital. The last time I was sick was when I was in the secondary school, people always wondered what was in my body because I hardly fell sick*" *(Kofi; male, 32, Ghanaian)*

There were other gender differences apparent in terms of beliefs about what makes one healthy or how one described his or her health status. The male participants presented a picture of not consciously thinking about their health, unlike the women in the study who spoke more about foods consumed and undertaking physical activity. Female respondents from the UK and India also spoke in terms of the role of diet and physical activity behaviours in maintaining a preferred body type. This is not so apparent among the female participants from Ghana who spoke about wanting to have "enough" body and that this was a normative expectation among their peers in Ghana. Women also recounted their experiences with their families and family history and how it had influenced them to lead a healthy lifestyle. For example, one women spoke about how her father had developed diabetes because of his unhealthy lifestyle, and how this had prompted her to start exercising and watch her diet.. Most male respondents, regardless of country of origin, described themselves as healthy and when further probed expanded to state that being healthy to them meant avoiding the use of health services and not having any serious health condition.

> *I suppose because I do a fair bit of walking and I don't have any, like severe health problem as some people get pretty bad (terrible health problems). So I suppose in that regard, I regard myself as healthy (George, Male, 27, Indian)*

Among the White British sample being healthy equated to eating well and having adequate physical exercises, however this group also emphasized the importance of good mental health, an aspect which was not raised by the two migrant samples.

> *I suppose being healthy means being free from stress or depression and things like that's not only got to do with the body but the mind as well (Anna; female, 25, British)*

Table 4.2 Cultural and gender difference in beliefs about health

Theme	Cultural differences	Gender differences
Beliefs about health	Absence of illness (I, G) Not attending healthcare services (I, G) Good mental health (WB)	Not consciously thinking about their health (M) Absence of serious health condition (M) Monitoring food and planning meals (F) Weight and body type (F)
Symptom interpretation	Normalisation of common symptoms and illness (I/G) Normalisation of hereditary conditions (I/G)	
Self-management and help-seeking	Preference for self-management of common symptoms (I/G) Use of home remedies and traditional medicines (I/G)	Strong distinction between illness and health (M) Help-seeking for symptoms as a common behavioural response (F) Help-seeking for a range of symptoms (F)

Key: *I*, Indian, *G* Ghanaian, *WB* White British, *M* male, *F* female

Symptom interpretation

 Participants spoke about their interpretations of particular symptoms and how this guided subsequent responses on how to prevent or manage symptoms and how previous experience influenced these symptom interpretations. For example, participants relayed that an upset stomach would be interpreted as the result of something that they had previously eaten or a headache would be attributed to stress or too little sleep and as a consequence they would

84

change and monitor their food choices, take painkillers or take extra rest. Participants from Ghana and India however, described "illness" as specifically leading to hospitalization and treatment and was not a term that described common conditions or ones that can be self-managed. Illnesses that commonly occurred in one's environment were often normalised and were not characterized as ill health. For example, participants from Ghana spoke about malaria as a commonly occurring condition that was part of "normal life" in Ghana and therefore not perceived to be an illness as such;

> *"I was generally healthy, the only thing that I use to get was malaria and you know*
>
> *is common when you live in Ghana" (Ama; female, 27, Ghanaian)*

Common ailments, which could easily be treated with over the counter medication, or easily accessible medication, were described as "normal" and participants often indicated that they did not consider that these reflected being unhealthy or ill. Diseases that were hereditary, such as Type 1 diabetes, were again described as normal, particularly if they could be managed.

> *"Diabetes is something that is common in my family, I inherited it… all I have to do*
>
> *is manage it, that does not make me less healthy" (Paul; male, 60, Ghanaian)*

Self-management and help seeking

Beliefs about how healthy one is also influenced decisions around seeking professional help to treat or manage conditions. There were similarities between the reports of participants from Ghana and India, which to some degree reflected the endemic diseases in their home countries and familiar approaches to self-management. Malaria was a common endemic

disease that participants from both India and Ghana talked about. A rise in temperature and a fever were attributed to malaria and participants had articular treatments that they would default to first.

> *"When I feel unwell, it is normally malaria, especially when you get a fever and you start feeling hot" (Raj; male, 23, Indian)*

Descriptions of help-seeking were more common among the women than men in this study, regardless of country of origin. Male participants often defined "wellness" as not seeking medical help. One male participant described how he had never been admitted to hospital, which he gave as evidence that he was healthy. This pattern was noticeable in other male participants who tended to make a clear distinction between illness and health.

> *'I don't know, I can't remember I have ever been admitted to the hospital one; and two, I don't know, I have never taken ill, seriously ill like that' (Ben, male, 32, Indian).*

> *"I have never been to the GP here, I don't know who or where my GP is" (Dave, male, 28, Ghanaian).*

In comparison to the men in this study female participants were more likely to describe help-seeking for a range symptoms and were more likely to include help-seeking as one of their behavioural responses to bodily changes.

> *"I feel very fine within my body, I guess if I was unhealthy I will feel sore in my body, I will probably go and see my GP'' (Grace, Female, 42, Ghanaian)*

The role of family and peers in shaping behaviour

The study identified several influences on health behaviours, which were mainly social influences. The participants talked about how they learnt to be healthy from observing family and friends and by following suggested advice, however the family was the most significant influence and this was observed across all participants. The lifestyle of parents could have a positive effect on individual healthy behaviours. All participants talked about the parental influence on healthy lifestyles they had adopted. The role of the father was seen to have a very positive influence on respondent's healthy practice in both Ghanaian and Indian participants and was less of an influence for the white British participants. Examples of such influences were on weight loss, participation in exercise and a key role in deciding food choices within the family.

> *"I always used my dad as an example, my dad was an old   soldier/military man and he was very strong and looked younger, because of the military training he underwent, he always encouraged me to do lots of   physical activity so I can remain healthy, strong and younger." Kofi; male, 32, Ghanaian*

> *"On Saturdays my father use to go to the market to buy foodstuffs for the house, he bought only important things. I mean healthy things... I tend to do the same now that I am older." Yaa; female, Ghanaian, 36*

Participants described either copying healthy behaviours of friends and family or learning from observing the mistakes of family and friends which prompted them to live healthier lifestyles. Another major influence, particularly among the White British-born population was the experience of other people with ill health, which tended to prompt an increase in healthy behaviour as an attempt to stay healthy.

> *"I saw my friend's mum die, I guess it was cancer or something serious, I was*
>
> *shocked really, seeing this", Ken, male, 27, British*

Some participants recounted their earlier life growing up without snacks or desserts, and also

eating snacks and desserts was perceived as 'alien' to the 'normal' culture within India and

Ghana.

> *"Growing up, my dad did not train us with snacks and dessert, we never had a*
>
> *dessert after a meal...now I will eat them when I go for a meeting or something like*
>
> *that...I don't buy them with my money....I need proper meal" Kate, female, 25,*
>
> *Indian*

The availability of snacks and desserts posed a threat to healthy eating in the Indian and

Ghanaian population. The ready availability of these food choices was novel; as such items

were described as being expensive in their home countries and were not readily available.

Eating of snacks and desserts was also perceived to be foreign as these were not foods

regularly eaten or served in their home countries. The role of desserts and snacks in

maintaining health was not discussed by the White British sample, which might reflect a

tendency within the British culture to incorporate snacks and desserts into meals.

> *"I snack a lot on chocolates and toffees..., they are the first things you see in the*
>
> *supermarket with low prices" Grace, female, 42, Ghanaian*

The study further explored respondents' experience of unhealthy behaviours in the home

countries of the migrant participants and although participants admitted to occasional

unhealthy practices they tended to include a justification for these. However, one of the more

common behaviours that the White British-born sample spoke about was alcohol

consumption. Even though participants acknowledged that it was unhealthy they considered

it to be a common behaviour with a strong social determinant.

"I go out with my friends and then we drink, I would say I get very drunk probably once in a week" Kev, male, 26, British

The impact of weather on health behaviours

All participants reported a change in their physical health after arriving in the UK. Participants complained of symptoms such as tiredness and weakness on arrival to the UK, which they attributed to the change of environment and the new weather they were experiencing. Some explained that their 'inadequate exposure' to the sun led to them feeling *"tired"* and *"weak"*. A change in the season was often reported to affect migrant's quantity of food intake. All respondents noticed an increase in appetite during the winter months and as a consequence had tended to depend on quick meals and snacks to satisfy their hunger.

"During the winter, I feel really hungry all the time so I eat a lot, I don't know if am sick or it's the weather but during warmer times I am okay." Ann, female, 29, Ghanaian

Others however, reported positive health benefits in their new environment and attributed this to a reduction in frequent cold and chest infections, which was seen in part to be due to cleaner air or lower levels of pollutants. An Indian perceived that the UK air quality was better than that of India, since upon her arrival, she had not had respiratory infections like she used to in India.

"I no more get frequent cold and chest infection….I think the environment has a part to play... may be because the air is fresher because everything is regulated here" Pai, female, 23, Indian

Migrant participants generally expressed their satisfaction with the medical facilities in the UK. A Ghanaian participant with a long-term health condition explained that the UK

healthcare system has helped him to manage his illness more effectively. Another participant who had a previously undiagnosed illness recounted how a routine new patient check at her general practice had identified a long-term health condition. These factors helped to improve the health of migrants and encourage medical help seeking.

> *"Here you are forced to go for routine check-ups and the medication too. Back at home, you may not get even some prescription that we get here and so it's better here. A lot of thing that I did not have the opportunity to do there; here I have it so I know my health status. Paul, male, 60, Ghanaian)*

In comparison, the White British-born sample spoke about challenges and barriers to utilising the healthcare system. Notable was the frustration around obtaining appointments in a timely manner and perceptions of hostile attitudes of some healthcare professionals.

Ghanaian and Indian participants also spoke of barriers to healthy living in the UK and in particular the poor availability of foods that they were used to consuming before coming to the UK, this was especially emphasised by Ghanaian migrants compared to the Indians. Participants further explained that if their usual foods were available then the taste was different to that at home and the produce was not as fresh compared to that at home, possibly as a result of being imported and transported. Availability of familiar foods was less of a barrier to healthy living for Indian participants who lived in Birmingham because there was a well-established Indian community where ingredients for traditional foods were readily available. Furthermore, participants described their lack of knowledge about foods in the UK, their preparation and as such were not able to purchase them. A participant explained that she was not able to buy some vegetables even though they were affordable because she did not know what they were or how to use them.

"I do my food shopping in Aldi, sometimes, they have good prices for the fruits and vegetables, but the problem is I don't know what to do with some of the vegetables, I have not seen them before" Ann, female, 29 Ghana

Another barrier to healthy eating noted was the availability of cheap high calorie ready-made meals in supermarkets and the availability of cheap attractive high calorie snacks. An Indian participant shared her experiences with consuming foods, she knew were not good for her. She was attracted to the foods because she saw them at the supermarket and could not resist. Participants also buy unhealthy foods because they were cheaper compared to the healthier options.

"All these unhealthy foods which I know are not good for me keep staring (looking) at me in the supermarket and I keep buying them" Sara; female, 42, Indian

Again a female participant who has a family here felt that the lack of social support or inability to afford a domestic worker who might cook your meals for you serves as a disincentive in promoting healthy living. She resorts to buying already made meals which saves her money and time.

"There is a lot more self-reliance that you have to develop when you are living in a country like this where you don't have that social support or you don't have domestic help or you can't afford it so you have to do everything yourself. Very often, you resort to easy and cheap ways like eating from a can for example because it is easier, it's cheap, it's not very expensive. Basically convenience takes precedence over healthy food so I don't like it. I am not happy about that" Rita, female, 40, Indian

In as much as green spaces encouraged physical activity for some participants, others however will not use them for walking or running because of the presence of dogs. They

explained that the presence of dogs in parks and on walkways served as a deterrent for their effective use. Some participants explained that in their home countries, dogs are perceived as wild (meant for protection) and because of that notion, walking when dogs are nearby felt threatening. One participant expressed her fear of dogs, that anytime she saw one she panicked. Another participant was annoyed about the dog owners, in instances where dogs tried to get close, owners of these dogs ignored her. Such attitudes affected her using these green spaces.

> *"In my country dogs are for protecting properties and for that matter they are very wild when you approach them, they normally bite any intruder, because of this I am afraid of dogs so anytime I see them I begin to panic and run. I don't use the parks because of the presence of these dogs"* Akos, 31 female, Ghanaian.

> *"I don't like to walk in some areas because of the dogs, I have had dogs nearly bitten me. The most annoying thing is that, their owners don't even apologise or say sorry"* Kay, male 30, Ghanaian…

Participants felt the presence of automatic doors, escalators and lifts was a disincentive for being physically active. The UK environment does not promote physical activity. They felt they always had a choice in using the elevators instead of the staircase, and would prefer to take the lift. Available transport systems *"buses and trains are everywhere"* was also seen as a barrier to being physically active.

> *"Everything its automatic, even common door, it opens for you…you don't have to use any energy"…*George male 27 Indian

Physical environment conducive for promoting physical activity

One of the questions I asked of participants during the interviews was whether being in the UK has changed their health. For a few participants their answers brought out good experiences that have encouraged them to lead healthy lifestyles. One such reason was the availability of parks. Availability of green spaces like parks or walkways in the UK helped promote physically active behaviours in some participants. A conducive environment is very important in promoting healthy behaviours. Physical activities such as running and walking help promote health of people. A participant was encouraged to walk because of the availability of the green space "*parks are well kept….because of that I don't mind walking and enjoying fresh air*". This shows that the aesthetic nature of the environment in a way helps to encourage healthy behaviour. Another influence of the environment in promoting healthy physically active behaviours was the feeling of safety.

> *I like to walk and run, especially through the parks, it's so nice, because the areas are always kept clean, and the grass is always cut. Claire, female, 49, Ghanaian*

A participant clearly stated that she was encouraged to do lots of walking because she felt safer in the UK than in India, where girls feared being raped when they decide to walk instead of taking public transport.

> *I prefer to walk here because back in India, it is not safe to walk , specifically if you a girl for fear of being raped, I never walked long distances but here, I feel safe to walk. Sai, female, 28, Indian*

Body perception

Some Ghanaian participants expressed concerns about their body weight/shape, and a desire to gain a "socially acceptable" body size. The concerns were based on their current body

dissatisfaction and their preference for a socially desirable figure. Socially acceptable weight meant being heavier and curvier. Phrases like "not having enough body", "I need a bit more weight", "getting bigger in the right places" was used to describe participants desire to attain a desirable weight. These participants saw themselves as smaller/ thin compared to their desire to be bigger. A Ghanaian respondent who currently thought she had a thinner /slender figure was eager to gain weight and did not view weight gain negatively. One respondent did not want to return to Ghana looking skinny and as such was not under any duress to maintain her weight by being cautious of what she ate; she was not so particular about her diet so long as she gained weight.

> *"In my family I am the only one who is slim; you know all my sisters have got enough body, so I also want to gain a bit of weight… I wouldn't want to go back to Ghana skinny" (Ann, 29,female, Ghanaian)*

Having ''enough body'' was seen, as an ideal physique of a woman, and beauty was associated with a larger figure. Being in the UK was a good opportunity to gain the socially desirable weight. Living in the UK was perceived as having a good life, a good life equates to ability to gain weight and fill up, hence the participant's desire to go back to Ghana looking bigger. In addition being larger was seen to ensure that on return to Ghana, women would feel accepted or appreciated by the family. The preference of having a curvy figure stemmed from the desire of being socially acceptable in their home countries, the feeling of being appreciated or accomplishment (looking fuller physically on return was a sign of good living in the UK). Comparing themselves to the ideals of the host country was not a strong motivating factor to reduce weight; original cultural preference was maintained.

In contrast, most Indian female participants reported a previous desire to have a thin body particularly when they resided in India, because of the belief that a thin lady is attractive and is more likely to find a male partner, which was viewed as desirable. One participant recounted her story before she got married in India, the lengths to which she had to go to stay or be thin, in order to get a suitor. When probed why she had to go without food, she said that was the only way she could have reduced her weight and she did not think of the consequences of her not eating and having temporary blindness; she did not mind being blind if that would ensure a suitor. She did not think of the consequences, because her aim to lose weight was of a higher importance than the consequences.

> *"Before I got married I was fat, so I couldn't get suitors, any man that came to see me never came back all because of my weight, so when I was told my current husband was coming to see me I did not eat anything for two weeks, I lost a lot of weight and temporarily become blind, I eventually married him." (Sara, Female, 42, Indian)*

Migrating to the UK, however did change the pattern of their behaviours. Most of the Indian women felt no pressure to be a particular body size partly because in their current environment they felt their weight was acceptable in comparison to the weight of the whole population. This could be due to the fact that participants felt normal in the host country when they compared themselves to people around.

> *"I felt very fat in India because every young girl is supposed to be slim at my age, but when I came to the UK everyone says I am fine, so I haven't been so careful about what I eat or do, and I can feel I have gained extra pounds." (Rita, Female, 30, Indian)*

Every woman attributed healthy living to healthy diet and taking physical activity. Unlike Indian and Ghanaian participants that were concerned about their societal body standards, the White British participants talked about being healthy. They reported engaging in healthy behaviours to be healthy but not to lose or gain weight. Gaining, losing or maintaining weight was as a result of health reasons, the fear of diabetes, strokes, high blood pressure.

Even though most participants talked about having a healthy body, the main concern of most British participants was to keep healthy, avoiding lifestyle related diseases like some forms of diabetes, high blood pressure, cardiovascular diseases and some forms of cancers. One White British participant was more concerned about having a healthy weight by eating well and doing physical activity to improve on her posture, releasing the tension in her back and overall to be well enough.

> *I do pilates to improve my posture and health in general not really to lose weight, I prefer to eat well, example use olive oil, have little red meat and prefer fresh salads and vegetables to prevent getting these conditions that one is likely to get if you don't take care of yourself (Kira, 49, female, English).*

Participants from across groups talked about engaging in healthy behaviours such as eating well and being physically active but this was more common with the white British participants. There was not much concern of being a certain size, their main concern were to avoid diseases that could affect them as a result of lifestyle. The push factor was to be healthy.

> *I basically have worries about high sugar levels and I am trying to keep it down. my dad is diabetic so I am trying to keep my sugar levels down because I can tell the*

effects....Whereas now I started taking gluten free diets and I have cut out so much

carbs and the rest of it...I have started working out (Mia, 25, English).

This participant also adopted a healthy life because of her dad's diabetes, she was more concerned about having a healthy lifestyle to avoid getting diabetes and its effects.

Discussion

The aim of this study was to undertake a comparative exploration of lay beliefs of health among male and female Ghanaian and Indian migrants residing in an urban area within the UK. Differences in beliefs and health behaviour practices were apparent across participants from the different countries of origin and the persistence of culturally based beliefs following migration would account to some extent for observed differences in beliefs and health practices between a host population and new migrants (Helman, 2007). However, established gender differences were also apparent and women were more proactive around issues concerning their weight than men (Wardle et al., 2004) which is in line with previous research reporting that women commonly opt for portion controlled or lower calorie foods (Chaiken & Pliner, 1987; Grogan, Bell, & Conner, 1997; Pliner & Chaiken, 1990; Rolls, Fedoroff, & Guthrie, 1991; Sloan, Gough, & Conner, 2010) and are likely to avoid fat and consume higher amounts of fibre than men. Conversely, maintaining good health is not seen to be a motivation for men's food choice.

Attributing being healthy to not having a "serious condition" or to not needing to access healthcare services might reflect differing previous experiences of healthcare systems utilization. Although in the UK each person is registered with a general practitioner in their geographical area, the experiences of migrants from Ghana and India may be explained by

the differences in access to health services in their respective home countries. For instance, India has a large private healthcare system although it is estimated that three quarters of the population live below the poverty line and are unable to access private healthcare; the public sector health services within India primarily focus on preventative health approaches and as such low and middle income citizens may be precluded from accessing services offered by private healthcare providers (Duggal & Gangolli, 2005). In contrast, Ghana, has a National Health Insurance System that was introduced in 2009 to provide universal access to healthcare, with each individual required to make a yearly qualifying contribution (Mills et al., 2012). Prior to this, access to and utilisation of high quality health care was selective – graded by economic status. Coupled with a high doctor-patient ratio, this made it increasingly difficult to obtain an appointment with a doctor.

Recent evidence from Ghana (Gobah & Liang, 2011) indicated an increase in preferences for alternative remedies (including traditional and faith based remedies) for treating illnesses rather than seeking an appointment with a health professional. Furthermore, minority groups in high income countries may use channels other than primary healthcare facilities (e.g. self-medication) because of minimal previous exposure to healthcare services in their home countries (Darmon & Khlat, 2001). Other issues around accessibility of healthcare services in host countries for migrant populations included inadequate knowledge of health risks, minimal understanding of public health messages and cultural and language barriers (O'Donnell, Burns, Dowrick, Lionis, & MacFarlane, 2013; Rechel, Mladovsky, Ingleby, Mackenbach, & McKee, 2013).

This chapter also highlighted individual, social and environmental factors that serve as barriers and facilitators in engaging in healthy behaviours. Social factors such as the influence of friends and family were perceived by participants to be one of the strongest

influences around health behaviours. Parents often are the main instigators of healthy practices within a family and their behaviours serve as a model for their children, which can persist in later life (Ackard, Neumark-Sztainer, Story, & Perry, 2006). Ghanaian and Indian societies are often built around strong family units which offer sustained opportunities to learn health behaviours. The father is an important figure in instilling healthy habits on the family, this could be because he holds the resources of the family, may hold decision making powers and has the opportunity to define social values within the unit (Clare, 2000). This finding is not surprising as Social Learning Theory (Bandura, 2004) proposes that people learn primarily through observing family and friends and these key referents can strongly influence both positive and negative health behaviours (such as diet, smoking, drinking and physical activities). When people migrate, family structures change as a result of distance and as such family/social influences might not be as strong (Marsiglia, Kulis, FitzHarris, & Becerra, 2009). People find themselves in a new environment and as such the pressure of the old environment to conform to previously established social norms may be reduced.

This study identified environmental factors such as the availability and cost of familiar foods as a factor that has impact on migrant' health behaviours. Changing patterns of behaviour is part of the process of settling in the host environment (UK). Migrants go for cheaper and unhealthier foods that are easily accessible compared to their usual foods in their home countries, and also their inexperience with new foods lead them to buy prepackaged and processed versions.

The study identified that migrant participant's reported tiredness for a few months upon arrival to the UK. Research suggests that migrants from countries with a tropical climate or lots of sunshine are likely to have deficiencies with vitamin D since they do not get the needed amount from the new environment, it is suggested that darker skinned people will

need about 2.5 hours sun exposure to get their daily vitamin D requirement (Diamond et al., 2005) to prevent the feeling of tiredness, aches and pains or need to get this from their diet

Availability of parks and green spaces was seen to have influenced migrant's attitudes towards physical activity but also presence of dogs in these areas also served as a deterrent from using them. Even though dogs exist in both India and Ghana, they are normally seen as guard dogs and very ferocious animals other than friends of man. A paper by (Delavari et al., 2015) found that migrants may engage in unhealthy habits because of their poor understanding of their new environment. It's important to health that migrants are able to understand and engage properly with their new environment read and understand signs, read and understand food labels, how to use services, especially relating to health

One notable finding from this study is the desire of Ghanaian female participants to gain weight and gain curvaceous figure. The concept of a woman's body is influenced by the culture or the society they belong to. In some societies in West Africa thin girls are deemed, sick, weak and ugly (Polhemus, 1978 cited in Helman, 2007). A study on Ghanaian students showed higher preferences for a larger body size (Cogan, Bhalla, Sefa-Dedeh, & Rothblum, 1996). However Duda, Jumah, Hill, Seffah, and Biritwum (2006) , although revealing that Ghanaian women preferred to have a full figured body, women with larger bodies however, preferred a smaller figure and would like to reduce their body to prevent obesity related illness (Duda et al., 2007). According to Cassidy (1991) being fuller figured in some areas in West Africa is a compliment which meant one was beautiful and so therefore a culture where attitudes towards obesity are more positive will encourage behaviours promoting weight gain through high calorie diets, use of medications such as blood tonics.

Some studies have investigated the perception of body shape and size of western and non-western countries (Renzaho, McCabe, & Swinburn, 2012; Tauzin, 2007). Studies like that of Renzaho (2004) found that in a collectivist societies like that of African communities, there was a preference for a well-rounded women (physique). People from such societies are guided by social norms of families and community, they value the feeling of belonging and acceptance more than their personal desires. Some cultures look at obesity more as a social cost (social rejection, loss of opportunities such as marriage and power) than a physical cost (Brewis, 2011).

Historically in sub Saharan Africa, curvy women are celebrated, and skinny women are mostly deemed to have AIDS (Bordo, 2004). According to Bordo (2004) a voluptuous figure is seen as a sign of wealth, health and power while a thin figure signifies poverty and poor health. This does not only show a female's social status but shows the status of the family as well. Some cultures prefer women to be more voluptuous compared to others. Cultural beliefs may be held for example a woman able to gain weight after marriage is seen as a sign of a happy marriage whereas maintaining or losing weight as an indication of a stressful marriage (Kishwar, 1995).

However, Cachelin, Monreal, and Juarez (2006) argued that the western ideal of the feminine body propagated by the media is likely to influence female migrant body image perception as a result of acculturation (contact with the host culture). Such research suggests a shift in body image preference after migrating, so that cultures that value bigger figures may adopt the ideal of western thinness (Wammes, Breedveld, Looman, & Brug, 2005). Amongst most south Asian migrants a larger body is also seen to be a sign of good health in both men and women (Patel, Phillips-Caesar, & Boutin-Foster, 2012) and in women gaining weight after marriage was a sign of good marriage (Bush, Williams, Lean, & Anderson,

2001). Bush et al. (2001) observed that South Asians in Britain still viewed having a larger figure as healthy and resisted slimness.

In this study, Indian participant's recounted instances where they felt pressured to lose weight. It was common for younger unmarried females to stay slimmer or be slimmer because of the preference of suitors (Rao & Rao, 1990; Talukdar, 2012). According to Kishwar (1995) just like the Ghanaians, the Indian women value plumpness, however a study by Gupta, Chaturvedi, Chandarana, and Johnson (2001) among Indian girls aged between 18-24 identified disordered eating patterns. Mumford, Whitehouse, and Platts (1991) also found a higher risk of eating disorders in Asian school girls from traditional families than those from westernized families living in Bradford UK. One could probably say that even though the Indian society adores plumpness, it is more notable after marriage, hence the ideal to stay slimmer before marriage as Kishwar (1995) says "if she is happy in marriage, her body should fill up" p16.

 Meaning of beauty is culturally defined, differing from society to society, and beauty preferences can impact on choice of health behaviours. Benkeser, Biritwum, and Hill (2012) also suggest that rising obesity levels among women which have been associated with environmental factors could partly be explained by the historical context of a socially acceptable curvy, full figured shape of a woman; supporting Cogan et al. (1996) that the perception of ideal body size is influenced by culture and gender.

According to Patel et al. (2012) the motivation to be physically active and eat well in western cultures is because of the ideal for a slim and thinner figure. This research however found that among British female participants exercising and eating healthily were motivated not by the idea of being slim but by the motivation of being healthy, avoiding lifestyle

related illness like diabetes or strokes. The difference in these findings could be because the research sample utilised well educated women or due to greater familial or personal experience of lifestyle related conditions.

The findings should be interpreted within the limitations of this study. Firstly, the study utilized a small sample of migrants, most of whom were younger and included only two countries of origin groups, which may have limited the range of stories provided. Furthermore, the sample recruited into this study was highly educated and may not reflect the experiences of migrants with differing socioeconomic and immigration status. As with any qualitative in-depth interviews, there is a likelihood that participants report ideal situations and might have left out some personal experiences or perceptions they perceived to be negative.

However, this study is important in that it is the first study to undertake a comparison of the perceptions of health among migrants from different countries of origin (India and Ghana) living in the UK with a white British sample. This study adds to the existing literature indicating that migrants' perceptions of health and engagement in health behaviours are influenced by not only cultural prescriptions formed from their home country environment but also personal and societal expectations of gender-based behaviour. Future research could consider the role of migration on perceptions of health and illness and how this impacts on help-seeking and utilization of healthcare services, which emerged during this analysis as an area likely to be impacted by beliefs about what it means to be healthy. Furthermore, cultural definitions of what it is to be healthy are essential in supporting the co-design of interventions for minority populations and the results of this study add to the call for culturally sensitive community-based interventions, which may increase engagement and lead to better health outcomes for migrant populations. In summary, the study also sheds

light on the effects of migration and its influence on engaging in healthy behaviours. The study highlighted both barriers and facilitators to both positive and negative behaviours. It further highlights the complexities in the perception of body image and weight and its effects on health related behaviours, with culture as a mediating factor.

CHAPTER 5

ILLNESS PERCEPTIONS AND HEALTH-RELATED HELP SEEKING IN OLDER MEN: A QUALITATIVE STUDY OF GHANAIAN MEN IN LONDON AND KUMASI

Introduction

This study is a follow up study of chapter four which explored the meaning of health and its influences on health behaviours. Findings from chapter four showed that there was a need for research to investigate the role of migration on perceptions of health and illness and how this impacts on help seeking and utilization of healthcare services. Chapter five was therefore designed to explore this aim.

This chapter introduces literature on illness perception, self-regulation and help seeking. The Common Sense Model (CSM) of illness perceptions was used to explore men's illness perceptions and behaviour. Generally men are less likely to seek help than women, studies in the US and UK have shown that men are less likely to seek help from health professionals with regard to depressive symptoms, stress and disabilities (Addis & Mahalik, 2003).

Early work by Kleinman, Eisenberg, and Good (1978) identified that the first stage of illness response is the awareness of a change in physical feeling or bodily change. The person is then labelled as sick, either by him/herself or the family. The next stage is then an action undertaken to bring relief/manage/cure. They further suggested that a higher percentage of management and cure of illnesses are through self-medication, family help, religious treatments, heterodox healers (healers that combine several forms of healing) with only about one third of people using formal health services. Illness perceptions have been investigated in both developed and developing worlds, to either predict adherence to treatment, how people cope with illness and also its influence on help seeking among others (Jayawardene, 1993; Sabuni, 2007; Van der Elst et al., 2016). Many health models have been designed to explain how, when and why people engage in behaviours, amongst them are the Health Belief Model, Social Cognition Model, Ecological models amongst others. Models like the Health Belief Model (Becker, 1974), the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and Theory

of Planned Behaviour (Ajzen, 1991) postulate that people are rational decision makers where they weigh the pros and cons of a particular behaviour before engaging in it. Traditional health behaviour models are different from self-regulatory models because they are based on behavioural predictions whilst self-regulatory models tend to understand the psychological mechanisms in undertaking a behaviour (Cameron & Leventhal, 2003). The self-regulation model is different, in that it comprises the emotional side of decision making, it views the process of indulging in a behaviour as dynamic. There is always a change because of the feedback loop. Feedback allows people to assess and change or continue (Leventhal et al., 2016) . The main difference between the self-regulation model and other health models are the inclusion of feedback, motivation and goal pursuit.

The main premise of the CSM is that individuals are problem solvers and use their knowledge of previous experiences and medical information to form lay beliefs of illness and also give it a representation. Leventhal and colleagues (1997) proposed that; (i) lay beliefs are formed from previous experiences and from how their culture explains illnesses. (ii) lay beliefs can be formed as a result of information from the social environment such as medical information from family and friends. (iii) lay beliefs formed from individual's perceptions influenced by their personality traits or their cultural background. According to Hampson et al., (2016) a person's personality trait is likely to affect his self-regulatory process. Self-regulation influences an individual's decision to enhance their health (Weidner, Sieverding, and Chesney 2016). They further suggested that health professional focus on developing self-regulatory skills to encourage healthy habits and improve quality of life of patients because how this is interpreted forms the basis for help seeking.

The CSM as shown in figure 1 has five cognitive domains under the illness representation (identity (label), timeline (duration), consequences (expected outcomes), cause and control (yes/no)). The CSM has two parallel arms; (i) the first arm shows the cognitive processing of

external and internal threats (symptoms), (ii) the second arm shows the emotional processing of the threat. The two parallel features of the model suggest that health behaviours could be as a result of both emotional and cognitive processes (Leventhal et al., 2016).

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│   Illness    │◄────►│   Coping     │◄────►│(Re) appraisal│
│Representation│      │  procedure   │      │              │
└──────────────┘      └──────────────┘      └──────────────┘
        ▲                     ▲                     ▲
        │                     │                     │
┌──────────────┐             │                     │
│    Threat    │             │                     │
│              │             │                     │
└──────────────┘             ▼                     ▼
        │             ┌──────────────┐      ┌──────────────┐
        ▼             │   Coping     │◄────►│(Re) appraisal│
┌──────────────┐◄────►│  procedure   │      │              │
│   Emotional  │      └──────────────┘      └──────────────┘
│   response   │
└──────────────┘
```
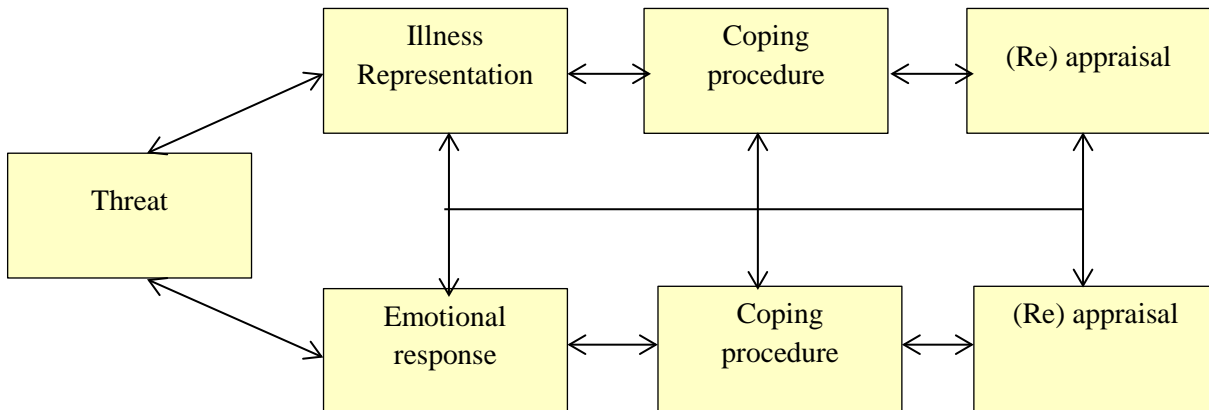
Figure 5.1: Common Sense Model (Leventhal, 2003)

Illness Representations

One key section of the common sense model is illness representation, which is an individual's response to health threat (Cameron & Leventhal, 2003). Illness representations are individuals beliefs about illness or symptoms (Diefenbach & Leventhal, 1996). Attributes given to illness may differ from culture to culture and how symptoms are identified have influence on labels given to them (Zola, 1973). According to Liddell, Barrett, and Bydawell (2005) illness identification in sub Saharan Africa is grouped in three types, the first type puts minor illness like colds and rash as a type that occurs by chance, normally it has no moral or social cause, so individuals with a cold or rash will not seek to find a cause. The second type are diseases believed to be caused by European invasion of Africa, and these types of diseases could be contracted in any part of the world. The third type of diseases are endemic

to Africans, of which Africans are more vulnerable. This disease classification in sub Saharan Africa explains how (ultimate cause) and why(proximate cause) people get ill (Bont, 2014). Liddell et. al (2005) gave an example with a mother with a child who has diarrhoea, she attributes the direct cause of the diarrhoea as a result of a fly settling on the child's food (proximate cause), but would also want to find out who sent the fly to settle on the child's food (ultimate cause).

The first of the five components of illness representation is identity or labels given to perceive threat. Labelling is a major determinant of how fast, slow or even if the person will decide to seek help. An example is identifying pain in the head, if perceived as headache, help may not be sought, if perceived as being due to a brain tumour help is likely to be sought quickly. The next component is the timeline which represents the perceived duration or the time trajectory (the person who identifies the pain in the head as headache may perceive the headache to be chronic or acute). The next step in the CSM refers to consequences (this could be how severe/mild the ill health will be and its impact on the person's physical and psychological well-being). In the previous example, the person experiencing headache may believe the consequence to be minor or major with fleeting impact. The next cognitive domain is to find the cause of the threat. The cause of the headaches could be attributed to lack of rest, viral or bacterial infection caught from a sick person. The last component is perceived control (can the headache be cured or controlled (yes/no), decide to take medication for the headache or see the doctor). Going through the components of understanding the pain in the head will lead the person to engage in Common Sense health behaviour (Diefenbach & Leventhal, 1996) such as having a good rest or buying some headache medication. The emotional reaction of a person going through headache could be anger for missing out on or inability to complete their daily activities.

Skelton and Croyle (2012) explain that one's understanding of the illness representation process will lead to which measures are taken. Kucukarslan (2012) suggest that understanding how people think about the process (mental representation) affects how individuals seek help.

According to Scott, Walter, Webster, Sutton, and Emery (2013) certain factors may influence the interpretation given to symptoms of illness. An individual's age: as people get older they are more likely to attribute ill health to ageing (Diefenbach & Leventhal, 1996). Perceived severity: when symptoms exhibited by the person are perceived as severe, it is an indicator for needed attention (Scott et al., 2013). The location: people with a toothache might deem it less serious compared with an ache in the chest. The duration of the symptoms also determines if the individual seeks help, longer duration will imply a severe or chronic condition which needs attention (Howell, Smith, & Roman, 2008; Smith, Pope, & Botha, 2005).

Why is self-regulation important to health?

The ability to give the correct label to a symptom at the early stages of appraisal will help with treatment and recovery (Petrie & Weinman, 2006). Self-regulation is important in seeking early help, adhering to treatment and management of illness (Broadbent, Donkin, & Stroh, 2011). According to a study by Alhalaiqa, Deane, Nawafleh, Clark, and Gray (2012) with hypertensive patients, those who adhered to their treatment had better chances of not developing serious cardiovascular problems, such as strokes and heart attacks. Giving the correct label to illness could influence help seeking, either seeking medical help (visiting the GP), self-medication or seeking information from others (Evans, Chapple, Salisbury, Corrie, & Ziebland, 2014; Zola, 1973). This however could lead to effectively managing symptoms

of illness. Research has shown that effective self-management of long term diseases leads to a lower chance of further complications (Asche, LaFleur, & Conner, 2011; Choudhry et al., 2014). Delay may lead to patients missing the therapeutic window of care and the ability to manage and improve on healthy behaviours even after ill health (Petrie & Weinman, 2006). After treatment of cancer, the majority of participants undertook self-regulatory behaviours such as exercise and good eating habits. Delay in help seeking has been found to be associated with poorer outcome (Hunter et al 2003).

Illness representations are a key component in self-regulation and helps researchers to understand how people respond to illness (Cameron & Leventhal, 2003). The CSM as the basis for this study looks at two essential components of self-regulation; (i) the cognitive aspect and (ii) the emotional aspect. One of the core principles of this model is that the people are seen as problem solvers. The model also includes environmental, social and cultural factors that influence beliefs about health and illness. There is a feedback loop within the model which means illness representation could change over the years. The Common sense model is used to explain the process and importance of self-regulation in help seeking. Horne and Weinman (2002) showed that changes to an individual's behaviour could lead to prevention and treatment of most diseases and illness especially those relating to lifestyle. Behavioural change could lead to one being cautious about their health such as getting regular check-ups and adhering to prescribed medications. Poor illness representation may lead to delay in help seeking, inability to manage illness and non-adherence to treatment or medication (Horne & Weinman, 2002). It has also been shown that negative illness perception could lead to long term disability and poor health outcomes (Petrie & Weinman, 2006).

Help seeking in men

Help seeking in the Ghanaian context is pluralistic; people tend to use different sources or a combination of sources such as herbal medicine (use of herbs in their natural state to treat illnesses/diseases), spiritual healing (form of healing that targets the body, mind and spirit), and allopathy (the use of drugs to treat illness/disease). Why people choose these may depend on their various experiences or perceptions about the particular method and the perceived cause of their illness.

The population of the world is gradually shifting to an aging population; this could be accounted for by the improvement in medical technology or increased access to basic needs (food, clothing and shelter) (UN, 2015). However in the developing world the older population are still faced with problems accessing healthcare due to poverty and higher increase in risk of non-communicable diseases (Biritwum et al., 2013; Saeed et al., 2016). Research has shown that factors such as the age, gender and socio economic status influence help-seeking (Ahmed, Adams, Chowdhury, & Bhuiya, 2000; Ahmed, Tomson, Petzold, & Kabir, 2005). Biologically health changes with age, however these changes differ from person to person some older people may enjoy good health whilst others may not. There are certain health issues that also occur later in life such as hearing loss, cataracts, back and neck pain and osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression, and dementia (WHO, 2015). Berger et. al (2005) found that older men have more positive attitudes than younger men toward seeking professional psychological help.

Another important influence on health is gender. A literature review by Galdas, Cheater, and Marshall (2005) reported that men's socialisation affects their attitudes and beliefs towards help-seeking. There is an assertion that masculinity accounts for poor health in men. Others also argue that masculinity encourages men to undertake health promoting behaviours such as

engaging in sports (Crone-Grant, Smith & Gough, 2005). However, men view sports in terms of competitiveness, toughness rather than health benefits (Connell & Messerschmidt, 2005; Messner, 1992). It is likely that, traditional masculine attributes such as risk-taking, perceived invulnerability, and endurance of pain, potentially exacerbate health problems and may deter men from seeking professional help (Courtenay, 2000; White 2002). However, older men were found to have less endorsement of traditional masculine roles which made them more likely to seek help than the younger ones (Berger et. al 2005).

Men relatively seek less medical help compared to women and this has a greater impact on their health. Delay in seeking medical help may lead to a late diagnosis of treatable and manageable illnesses and this could account for higher mortality rates in men (Hale, Grogan, & Willott, 2010). Because men are less likely to seek medical help, they are late in reporting symptoms relating to illnesses, which researchers have linked to high levels of embarrassment and their willingness to endure symptoms for longer periods compared to women (Macintyre, Ford, & Hunt, 1999; White et al., 2011). Studies in the US and UK have shown that men are less likely to seek help from health professionals in depressive symptoms, stress, disabilities (Addis & Mahalik, 2003). A study by Buor (2004) found that men in Ghana have higher rates of utilisation of health care facilities than women, this however contradicts other research done in the UK which shows lower rates of utilisation by men. Moreover, the behaviour of men in Ghana may differ as men are seen more as the ones with higher incomes or the holder of the family purse and are likely to afford the cost of medical consultation and treatment (Buor, 2004). Studies like Bastard et al., 2013; Mills, Beyrer, Birungi, & Dybul, 2012 found that in countries with limited resources (health infrastructure) men delay treatment of illnesses. Some studies have focused on identifying help seeking needs of people in Ghana, for example one looked at help seeking perceptions in Ghanaian women both in London and in Ghana (Owusu-Daaku & Smith, 2005). This study

showed that Ghanaian women in Ghana and the UK shared similar perspectives on help-seeking but the UK respondents acknowledge better medical care in the UK. Keller & Baune (2005) found that migrants tend to adjust to different forms of health care situations after migration due to socio economic reasons. However, no study has looked at help seeking in older Ghanaian men, nor compared the Ghanaian in their home country and in the UK.

A study by Galdas et al. (2005) highlighted the need for more qualitative research on factors that influence help seeking. Previous studies have shown that men are likely to self-manage their illness, or wait until they no longer have solutions before consulting a professional or a trusted source (Addis & Mahalik, 2003; Yousaf et al., 2015). Little is known about how culture and lived experiences influence illness representations, perception about illness and help seeking in Ghanaian men and on older men. The main aim of this study was to qualitatively explore differences in the common sense model constructs help seeking choices between Ghanaian migrants in the UK and in Ghana.

Results

Twenty-six participants were interviewed, thirteen Ghanaians in London and thirteen Ghanaians in Kumasi. Participants were purposefully selected to have similar socio-demographic characteristics in the two locations. Characteristics of the participants have been reported in Table 5.1. Participants were asked if they had any long-term illness, those identified are diabetes, hypertension, emphysema, rheumatism and arthritis. Participants in London had been in the UK between 3 to 57 years. The average age was 58. Majority of the Ghanaian sample had high blood pressure. All the respondents have at least some form of education. The mean number of children of the Kumasi sample was six whilst the mean number of children of the London sample was three. Table 5.1 shows the socio demographic

characteristics of the sample used for the study. A total of twenty-six participants took part in

the interviews (thirteen in Kumasi, Ghana and thirteen in London, UK).

Table 5.1: Socio demographic characteristics of participants

Characteristics	London	Kumasi
Age		
50-60	5	5
61-70	5	5
71+	3	3
Education		
Primary	7	6
Secondary	6	6
Tertiary	0	1
Occupation		
Working	11	10
Retired	2	3
Self-rated health		
Very Good	8	9
Fair	5	4
Long term illness		
Yes	5	6
No	8	7

On analysis of the transcripts, the major themes were; identity, timeline, perceived cause,

consequences, experiences and use of services in the UK and Ghana, the perceptions on

channels of help seeking (spiritual healing, herbal treatment, self medication and support

groups) and financial factors influencing help seeking in men.

Identity

Participants discussed labels given to their symptoms. All participants were asked to recount

the last time they were ill, some did talk about pre-existing chronic conditions like, diabetes

and hypertension. Other participants chose to talk about bodily aches, headache, stomach-

ache, heartache and malaria (participants in Ghana).

No, I just feel it in the body you know, I know how I feel normally, so if there is any change, I notice it. Like slight headache, like err, bodily pains, and then err if you have, a normal bowel and once a while you see that you are having a watery bowel, then you will know that you are unwell, something is not well. J, Kumasi

I don't know and the reason is that, the only time I feel I am not well is when I am tired. From there, I know that I am not well because you may have over worked myself and all I will need is to take some rest and move on. A, London

In some cases participants were not able to identify their symptoms. A participant who had initially had an enlargement of the prostate was made aware by his wife and a health talk he received. Identity was prompted by external source like the health talk and the wife.

Participant: I was working at the polytechnic at that time when we received a talk on prostate. At that time, I use to urinate very frequently and they advised that persons who urinate frequently should have their blood tested so I went. When they tested my blood, it was found that I had prostate so I went to hospital and was given treatment. Interviewer: So if you had not heard the talk on prostate cancer, would you have known what was wrong with you? Participant: I would have gone (to hospital) since it was not normal. My wife used to tell me that it (my condition) was not normal so I should go to hospital. Within that period of time, they came to give us the lecture so I took advantage of that. I knew I was urinating frequently and that was not how I used to urinate. L, Kumasi

Perceived Cause

Discussions on cause between migrants and the home population were similar, mostly attributing the cause to genetics, lifestyle and aging. The main difference was that participants in London were more likely to talk about stress and the weather as the cause of their symptoms of ill health whilst the participants from Kumasi talked about some illness as a result of supernatural causes. A participant in Kumasi talked about illness that can be cured by taking medication or going to see the doctor: as physical, which was caused by physical things (eating bad food, mosquitoes, and the environment). He also explained that there are illnesses that are caused by evil spirits sometimes and can only be cured by consulting the supernatural (consulting a spiritual healer).

> *There are some illnesses that doctor, or medicine cannot cure because it's caused by evil spirits, illnesses you know you haven't done anything wrong…if the doctor says you have a boil in your head….you will need a seek a solution to it. D, Kumasi*

In discussing causes of ill health in older men, the main things mentioned in the discussions were; ill health as a result of old age, stress, fatigue and the weather. Participants in Ghana attributed ill health to aging. A participant describes wellness to youthfulness and as you approach an older age, your health deteriorates.

> *As I said, when you are young, you are healthy. As you grow, it reduces…K, Kumasi.*

The sample from the UK attributed it to stress, fatigue and weather. The difference in weather in the UK and Ghana was seen as a cause of illness in the UK. They believed that different seasons in the UK, unlike Ghana had an effect on one's health. A Londoner explained that his coughs and chest infections were caused by the cold weather, he had been struggling with the cold weather and because of that he needed to cover up in order not to fall sick.

The winter season here is very cold whereas the weather is always hot in Africa. If you don't cover up or decide to wear summer clothes, you will become sick. AH, London

Where participants were not sure, or had no idea of the causes of the symptoms they were likely to seek early medical help.

I have already said that, in most of the cases, to me, if I don't know the causes I will seek help immediately, before I will consider other health options. I think I will go in to look for the physical or the orthodox way of seeking help. But I would likely support it with others that could also help. N, London

Timeline

Those with long-term illness knew that it could not be cured completely and could only be managed. Participants that narrated instances of getting malaria had a fair idea how long the malaria symptoms lasted. This was common among participants from Kumasi. The idea of the length of time for malaria to be treated helped them to understand when the symptoms they had was not malaria. For example if malaria symptoms lasted for two weeks with treatment, and after two weeks of taking medications there were no signs of improvement then, participants were inclined to seek further medical help. Most participants were aware of the duration of symptoms of illness if they had ever experienced such illness before. The duration was linked to how they perceived it to be severe.

My work can be very stressful, long hours and few hours of sleep. Sometimes when I have headache, I know it's because I haven't had enough sleep…when I decide to have a good rest, the headache will be gone by the next morning. A, London

> *"When I feel different inside, I just take a break, rest and I know I will be alright, if it persists then I know there is something really wrong" AB Kumasi*

If the usual duration of a perceived illness is prolonged then it is perceived to be something severe. There were no observed differences in the perceived duration of symptoms of illness between the two samples.

Perceived controllability

Some illnesses could be controlled according to participants; control was either by self-management or seeking help. Illnesses that were perceived to be caused by supernatural causes could not be controlled because it was believed to be caused and controlled by unforeseen forces. Participants talked about ideas concerning cure and recovery, one participant in Ghana who frequently experienced pains and aches in the shoulder was not so concerned about it because he believed that he was managing it, he described his symptoms as one that did not confine him to bed. Illness that confines one to bed is seen as a severe one which cannot be self-managed.

> *"This is not a disease that confines me to the bed". I, Kumasi*

Another participant in London with diabetes stated his responsibility to control the levels of sugar in his blood, he knew what he had to do to avoid crisis. He explained that most of the crises was because of his ill choices in behaviour, in order to avoid crisis, he regulated his diet, took his medication. This participant had adequate control of his diabetes by engaging in healthy behaviours to correct and constantly adhere to his GP's instructions.

> *"And at times I know that I am not supposed to eat too much but at times too, I just, I don't know but you know at times you, you'll eat and its small, so if you do that and you realize it has affected you, you just stop. Because, apart from my normal*

119

medication, once a while when I feel body pains ...because of not having enough rest, I take painkiller. I don't even visit my GP, because if I follow instructions given me, I am ok." N, London

In looking at findings from both samples on perceived controllability there were no patterns of differences. Some participants also perceive to have control over symptoms of illness, until self-medication fail and symptoms still persist, that is when they seek help by visiting the doctor or health professional.

Consequences

Major impacts of illness on older men were emotions, physical impact and engagement in self-regulation activities. Ghanaians both abroad and at home shared similar experiences with the impact of illnesses and consequences, however there were some differences. Ghanaians in Ghana talked about potential consequences of their illnesses, mainly death or paralysis. They were more concerned about being a burden on their relatives.

> *"You know death is inevitable but I pray, I go smoothly, I don't want to suffer before I die especially when you need someone to take care of you 24/7" I, Kumasi*

Whilst the Ghanaian participants in the UK, talked about death and paralysis, they were also concerned about the loss of paid working hours when they fell ill/unwell to go to work. Both groups talked about self-regulatory health behaviours such as avoiding risky sexual behaviours, healthy eating and being physically active to prevent ill health. Participants also talked about self-regulatory activities they undertook after experiencing ill health, ways to improve and prevent further illnesses. Participants in the UK shared experiences of being more physically active and having a healthier and a balanced diet after health scares/illnesses.

"These days I don't eat all those junk and sugary foods… and I feel very fit now, I walk a lot now, my wife uses our car now, I use the bus if I have to go far, but mostly I walk to pick up my newspaper every morning" K, London

Perception of differences in formal health services in Ghana and UK

Participants in the UK talked about healthcare services in the UK and Ghana. They compared the two systems. The UK system was seen to promote men's health by making services easily available and accessible. Participants talked about factors that helped them seek health services. Formal health services are more readily available and easily accessible to the Ghanaian respondents in the UK than those in Ghana.

Tremendously, because back at home, they will not even be forcing you to have tests. But here, you are routinely invited. Even if you refuse, they will send a reminder. Assuming you forget it they send reminders. At times they send it far in advance. Getting to the time, they prompt you, if you refuse to come; they change the date for you. So over here you are always on your toes. They will always be on your toes to be checking your health status. And some of the things that they do on me here, back at home they don't do. I, London

Men are encouraged to go and seek help in the UK. Some participants explained how the UK encourages older men to go for regular check-ups. The promptness of the NHS in sending them reminders and letters on regular check-ups serve as a reminder to seek help. This was viewed as a positive reinforcement for help seeking in older men. A participant explains this as an MOT for older men, where you have to go and get the entire test done and to determine if there is something wrong or you have good health.

> *There are opportunities to check on your health here and this include checking if you*
>
> *are in good health or not. There are like GP, what you call MOT for the over 50's and*
>
> *for every 6 months we are reminded to check on our health which may include checks*
>
> *on your prostate or health in general. This is something which is not available in*
>
> *Ghana.* AJ, London

Herbal medicine

Preference for herbal medicine was low amongst participants in the UK due to unavailability of preferred herbs, not really a trusted source of healing and other sources being quicker and effective. Some respondents preferred their own herbal mixture, they knew the preferred herbs and prepared the mixture themselves, but in the UK they did not have those medicinal trees (trees and leaves that are believed to cure illnesses, either by applying it directly or ingestion) they were used to in Ghana. Some respondents will not go for herbal treatment also because they felt that most practitioners had no qualification and certification, most herbal medicines had not been tested and approved by a certified body and therefore they will not use them for safety reasons.

> *There are other forms of treatment but for malaria, if you don't go to hospital, it*
>
> *wouldn't go faster. Herbal medicines and other forms of treatment are very slow*
>
> *when you use them. W, Kumasi*

Most of the respondents from Ghana once used or continue to use herbal medicine because of their belief that it was all natural and did not harm the human body. A respondent from Ghana also said that herbal treatment was not effective or slow in the treatment of certain ailments like malaria.

Because of the condition I have, I am already using a lot of these chemical formulations,... a lot of them. Within a day, you take this, you take that, in the morning, afternoon, and so I do not want not to add more of those things. If there is herbal substitute for those things which could do similar things, I would prefer to go for the herbal substitute. Y, Kumasi

Self-medication

Self-medication was undertaken by all respondents in an event of ill health. Self-medication was often the first point of treatment. Reasons why people self-medicated included holding previous knowledge of the symptoms and how to manage it. For example, when one was experiencing headaches he took paracetamol because he had been doing it previously or people around him had used it and confirmed its effectiveness. Another reason for self-medication was that, drug stores and chemical sellers were readily available in every community, where one could go to and buy any drug for any ailment, this was especially noted in the Ghanaian based respondents. Most people preferred to talk to their local chemist or pharmacist instead of the doctor because they were more easily accessible than their doctors.

When I feel that my illness is becoming worse I go to the pharmacy. I then describe my condition to the pharmacist and from the drugs I am given, I can deduce that I have malaria. G, Kumasi

Respondents in London also self-medicated because they had "tried and tested" remedies (medications for illness that had been recurrent in the person's life, if the respondent had had

cough before and had been using a particular medication, he was likely to get that medication anytime he had a cough, especially if it didn't need prescription).

I will not go to the GP if it's a cold or a cough. With the cough, I have my "tried and tested" remedies for cough. M, London

I was going to catch a bus and when I saw it coming I was trying to hurry and you know my age, I shouldn't have run or walked faster. So I don't know what happened, but I was thinking it will go so initially I started trying to see if it will improve by putting ice pack on it. AB, London

Spiritual healing

Believing in the supernatural and spirits is embedded in Ghanaian traditions. There is a belief that there are some illnesses that are caused, not from the physical things in the environment or in the body, but caused by misfortunes or spirits. Management and treatment of these kinds of illnesses should be spiritual. Ghana is a secular country, with Christians, Muslims and traditional believers. Spiritual healing comes with going to the church for prayers, going to the mallam (Islamic healer) or going to see the traditionalist. All participants interviewed for this study had a belief in God; seventy percent were Christians whilst the remaining thirty percent were Muslims. Participants in London believed in spiritual healing being combined with Western medication (biomedicine). There was the belief that God heals and also God gave the doctors the knowledge to heal, so whilst one sought healing from the doctor, prayer was added alongside with it. When asked about spiritual healing, a respondent explained that even though illnesses are seen in the physical, it could also be spiritual and as such prayers were needed for protection.

I pray, I am a Christian so I pray a lot and I also ask people back at home to pray for me, Because I know from the bible that a lot of things can go on (spiritual). I know sickness is physical, but spiritually too you can get some boosted immunity. B London

Most men in Ghana also shared the same belief, however, a few participants believed that there were some illnesses that were attributed to spirits or caused by the supernatural and as a result would need a supernatural healing. Some diseases or ailments are believed to be caused by spirits/evil spirits. These illnesses could only be cured with spiritual support

I pray that I don't get sick such that I will need to seek spiritual help. H, Kumasi.

Use of support groups

Respondents in Ghana had no idea what the purpose of a support group was or how it helped in management of illness or the healing process. One respondent from London, however, talked about stigmatisation in joining support groups and others getting to know your condition. It was perceived that people knowing your condition in the Ghanaian culture is harmful because of the fear that others will get to know and one will be stigmatised.

At times too, there would be that sub conscious fear of stigmatization. You know, you have a group and you meet and discuss things and a lot of people are around. You know, when you are going for your routine check-up, people are around alright, you meet people, but in that situation you meet bigger groups. People will see that you are having such a condition. And you know, back home, you know stigmatization. They will tell you, you are sick, you are suffering from this and it will be broadcasted. S, London.

In both locations men preferred Western medicine in the treatment of illness compared to herbal and spiritual healing.

Financial factors affecting help seeking in men

Financial reasons were the main reasons why most men will delay any form of help seeking. Most respondents attributed men not seeking early help to signs of illness to financial reasons. According to one respondent, men are the breadwinners of the family, they have to provide for their families and as such, any money they receive needs to be spent on the family. Spending time and money on their health is secondary to their primary role as a father. A respondent was asked what he thought prevented men from seeking help, he explained that he had children to look after and when he had the chance to see the doctor, he would be prescribed with medicine that he could not afford. He ends his answer with the statement "I need to control myself", which meant not to control himself of getting sick which he cannot, but control himself of seeking help which might be expensive and he cannot afford.

> *Some is because of money problems, right now, I have no money. I have to look after these children. One day I woke up and I have to go to the hospital, I have to find a drug to buy. Money to buy that drug is not available. How can I buy it? I have to control myself. Q, Kumasi*

Others attributed their lack of prompt help seeking to individual differences and individual preferences of men. Some men will prefer to seek help or go for routine check-ups because they make it their priority.

> *What a dog will see and kill, a cat will see and ignore it'. J, Kumasi*

A respondent in London explained that he would have preferred to take time off when sick but could not because he would have to work or he doesn't get paid. In this instance, seeking

medical help will lead to loss of paid time, even though he would not have to pay for the services, as would lose working hours and pay.

> *Here, you have to go to work even if you are not well. You simply have to do what you have to do. This exposure is one of the first thing I became aware of and I realized that, these people see responsibility differently. When all of these sickness and other things come, you need to take them into account. You may have a cold and not want to go to work but you don't get paid if you don't go to work. AH, London.*

Discussion

Participants in this study described their experiences and perceptions pertaining to the identity, cause, timeline, control, emotional responses and coping strategies relating to their ill health. The identity of a health problem is very important because it's the first step that leads to a process of cognitive search (illness perception) which may or may not lead to help seeking (Cameron & Leventhal, 2003). Some illnesses were easily recognisable by participants e.g. malaria. Probably due to the fact that they had over the years relived experiences and symptoms of malaria. One noticeable finding showed that the Ghanaian sample was more likely to attribute causes of ill-health to signs and symptoms of ageing. Attributing ill health to ageing may delay help seeking which may be detrimental to their health. Studies on aging and health shows that positive perceptions of older individuals within society will help the ageing population adopt a positive attitude towards their health (Stewart, Chipperfield, Perry, & Weiner, 2012; Wurm & Benyamini, 2014).

Another noticeable difference amongst Ghanaian men in Ghana and the UK, concerned the perception of consequences after detecting a health threat. The Ghanaian men in London

were more concerned with loss of paid working hours. This is probably because some jobs in the UK are paid hourly. If you do not show up you are likely to lose money compared to most jobs in Ghana that are bi-weekly or monthly paid. This could be that migrant men are likely to be in jobs that pay hourly and have no sick pay or benefits (Rienzo, 2013). The participants in Ghana were also concerned about being a burden to their families which was not seen in the UK participants. This could be because in the UK, older people are independent of their families. Policies such as the care system relieve the burden of the duties of the family, whereas in Ghana, the social care system for the aged is not available.

If an individual perceives symptoms of ill health as being possible to self-control it, he or she is less likely to seek help, but if they perceive that the symptoms are likely to be cured by medical treatment then they are more likely to seek help (Brown et al., 2007). Participants that perceived symptoms of heart attack as severe chest pains (leading to something serious) were more likely to immediately seek medical help. This was also noticeable among Ghanaian participants in Ghana who were less likely to seek early medical help. According to research carried out on illness representation and self-regulation, individuals who perceive consequences of illness as severe are more likely to seek appropriate help for it (Leventhal et al., 1997). Cameron and Leventhal (2003) suggest that fear is a very important emotional feeling that leads one to visit a doctor. Panic or fear of something terrible, like a pain in the heart symbolises a perceived heart problem, so participants are likely to see the doctor immediately.

Some identified coping strategies were regular routine visits to the medical facilities, avoiding situations that may bring about ill health, such as not engaging in risky sexual behaviours, alcohol control, diet and physical activity. A study by Aldwin, Sutton, & Lachman (1996) showed that older men had positive coping strategies, they were more effective in dealing with problems than younger ones. Social emotions such as the inability to

128

provide for one's family (to be the provider or carer of the family) were a major concern for the participants in Ghana. According to the self-regulation model, emotional and cognitive representations of illness are developed parallel to each other (Cameron & Leventhal, 2003). Research shows that men are less likely to internalise emotions such as pain and sadness relating to their health (Williams, 2003). Perhaps the idea of being older, associated with the belief of declining health, made them mentally prepared for some consequences of ill health.

Components of illness perception are important to understand because a deviation in help seeking depends on it. It is important to understand that the components of illness perception (perceived severity and cause, the timeline, identity) influence behaviour, seeking medical care. A study by Cameron, Leventhal, and Leventhal (1995) which categorised people into those who actively sought medical care and those who did not (as control) showed that the two groups had similar response rate on the symptoms of the illness but the timeline and perceived severity were different (the care seekers had a longer duration and perceived their symptoms to be more severe than the non-care seekers).

The findings from this study also showed that help seeking is influenced by financial reasons (unwillingness to lose working hours and not having enough resources to seek medical attention). Help seeking sources such as herbal, spiritual and medical treatments are often mutually exclusive. Self-medication/treatment is normally the first point of regulating one's health and may be the cause of delay in seeking medical treatment.

The present findings suggest that there is a delay in seeking medical help in both groups of respondents. Past research suggests that factors that influence seeking help (western medicine) in Ghana shows that delay could be attributed to the stress related to accessing doctors/ attitudes of health workers in Ghana (Dalinjong & Laar, 2012; Jehu-Appiah, Aryeetey, Agyepong, Spaan, & Baltussen, 2012). Owusu-Daaku and Smith (2005) in their

study of help seeking in Ghanaian women also found that delay in seeking help was prevalent in both Ghanaian women in Ghana and the UK. These results also showed that respondents in London will delay in booking an appointment with their general practitioner (GP) because they might lose paid working hours. Shavers, Shankar, and Alberg (2002) in a study of African American men showed that, they delayed seeking preventative health care services, delayed treatment until illness was severe. Delay to see the doctor in the UK, is normally because of the unwillingness to lose working hours (Owusu-Daaku & Smith, 2005). Respondents who had hourly paid jobs in the UK will not want to miss out on work just to see a doctor, when illness could be managed without losing working hours.

 Over the course of their lives, most respondents had used self-made remedies to treat their everyday illnesses such as headaches, stomachache, and body pains. As a result, initial response to ill health is self-medication; further help is sought when the symptoms persist. Even though seeking medical help is delayed in these men, the men in London saw their GP's when symptoms persisted. As above, respondents self-medicated because they trusted the source of medicine and had a history of use. Self-treatment/medication is widely used in developing countries (Geissler et al., 2000; Sclafer, Slamet, & De Visscher, 1997; Shankar, Partha, & Shenoy, 2002). Self-medication is usually the wide use of over the counter medications, in developing countries such as Ghana, most medication could be acquired without the need of prescriptions, an example is the use of antibiotics. Constant use of antibiotics builds a resistance towards it, and an economic drain on the health insurance system (Gyssens, 2001). In the UK, the sale of medication is restricted by the number that can be sold and some requiring prescription from a doctor, however according to Schmiedl et. al (2014) there has been an increase in the number of over the counter medication drugs over the years leading to adverse drug resistance. Inappropriate use of these medications is a risk to people and the government as a whole (Hughes, McElnay, & Fleming, 2001). Self-

medication is risky because signs and symptoms of illness could be misdiagnosed, this may lead to serious health issues and it can also lead to adverse drug resistance. Some studies have shown that people choose to self-medicate because of economic constraints (Donkor, Tetteh-Quarcoo, Nartey, & Agyeman, 2012), inability to afford the cost of seeking medical care or the challenge of getting to and waiting for one's turn (Awad, Eltayeb, Matowe, & Thalib, 2005; López, Dennis, & Moscoso, 2009).

The research also highlighted factors that influence help seeking. Men in London used more of the primary health care facilities other than any other form of help seeking. This is because primary health care facilities are easily accessible in the UK compared to that in Ghana. This is mainly due to the fact that the UK has an effective national health system that makes it easily accessible (Reynolds & McKee, 2012), all they needed was to book an appointment or walk in, which is quite different from men in Ghana who would prefer to use other sources that are quicker, easier to have access to and cheaper as well. The health care systems in Ghana and the UK are very different, whilst the UK health service is funded by general taxation and available for all, the Ghanaian system is based on an annual individually paid premium accessed by those who have paid their premiums (NHIS, 2010), in most recent times, the cash-based systems still exist in some private health facilities meaning that health care delivery is limited for people with fewer resources.

This study also suggested that seeking help might be as a result of personal choice in men. A study by Griffith, Allen, and Gunter (2010) found that personal factors such as men lacking the habit of using health facilities, not wanting feel "weak" and fear of hearing a negative diagnosis are likely to impede medical help seeking.

This research also suggested that some older Ghanaian men (both London and Kumasi) believed in spiritual healing, they believed that some illnesses were not caused by physical

factors but supernatural and will need supernatural healing. This study also showed that respondents believed in spiritual healing. In most cases prayer was seen as a form of healing combined with other sources (all respondents had a religious affiliation either Islamic or Christian). A study of Ghanaian migrants in the Netherlands showed that most of them consulted the clergy and traditional healers for treatment of illnesses (Knipscheer, De Jong, Kleber, & Lamptey, 2000).

A major strength of this study is that it interviewed older men in the UK and in Ghana, bringing out the differences, similarities and the impact of a new environment on health. A rigorous study design was used to enhance the richness of the data reported. A purposive sampling ensured that respondents differed in age, level of education, marital status and employment but also the same sample characteristics were seen in participants recruited from both the UK and Ghana to ensure effective comparison. The interview schedule was developed from a theoretical model, which ensured accurate analysis.

The study came with its own challenges, amongst them were challenges with recruitment. The study utilised a specific stratified table, looking out for specific participants with certain age, marital status, level of education, in employment or out of employment. This specific sample had to be the same for the two locations. The main challenge was identifying such a sample in the UK, it was easier in Ghana but in the UK it took a lot of time. Some categories could not be found so the participants who took part in the interviews in Ghana had to be taken out of the analysis (uneducated, not married man in London).

Another limitation of this study was that each participant was taken through his own experiences with illness, which differed from participant to participant. Findings from this study could be different if it focused on participants with one type of illness. This research was based on a retrospective account of participants' experiences with varied common

ailments. This is the first study to examine illness perceptions in older men, using a sample from Ghana and comparing it to Ghanaian migrants sample in London. This study is a follow up study of chapter four, to understanding the lay meaning of health and its influences on help seeking. The interview schedule was developed from the Common Sense Model and has been used in several studies investigating illness representation in different populations. The use of two similar samples from two different locations is very useful in research on migrants concerning their health (Rechel et al., 2011). It helps to understand the whole debate on migration influencing health. This study was reflective of age, marital status, level of education and employment status in older men. Most research on illness perception has focused on a particular illness or the importance in adhering to medication and managing illness whilst others focus on improving doctor patient relationships by understanding patient's beliefs. This research however took a different turn, its sample was not based on a clinical population but a general elderly male population. This research is novel because it helps us to understand illness perception from different perspectives and its effects on help seeking from the Ghanaian perspective.

This study is a starting point in understanding general illness perception in Ghanaian older men. Future research should investigate illness perception regarding infectious diseases using qualitative and quantitative methodologies or a combination of methodologies in Ghanaian samples. Future research could employ the CSM to further explore issues relating to understanding adherence to treatment of common diseases prevalent in the Ghanaian society and also to identify or explain lifestyle changes and ways in managing health threats.

The study did not seek to answer if behaviours were influenced either by culture or gender. It is hard to distinguish which behaviours may be due to culture or gender, as culture influences the prescription of gender roles (how a man behaves). However, Berger et. al (2005) found out that attitudes toward seeking psychological help are more closely related to traditional

masculinity ideology than to gender role. Future research could employ different research methodologies to explain the influence of culture or gender on help seeking behaviours.

In summary the results of this research provides insights on how Ghanaians either home or abroad share common beliefs in help seeking. Even though going to see the doctor or western form of healing is preferred, other help seeking sources are still being used. It is therefore apparent that these other sources should be given necessary attention for the purposes of promoting health and well-being. This research adds to public health literature on men's help seeking and uniquely brings out some areas of help seeking that may sometimes be overlooked such as the role of self-medication and the combination of health related help seeking sources (the use of prayer, herbal treatment and allopathic medicine in treatment of illnesses).

Self-treatment and medication is commonly used in the Ghanaian setting, which should be highly researched to facilitate the correct use of medication. Messages aimed at selling the effectiveness of drugs should be highly scrutinized to ensure the public understands the use, dosage and side effects of these drugs. Identifying factors that account for delay in seeking medical help in men will help develop appropriate interventions to promote behaviour change.

CHAPTER 6

GENERAL DISCUSSION

Summary of findings

The thesis aimed to explore health related behaviours and beliefs. The overall aim of the thesis was to advance our knowledge and understanding about health beliefs and behaviours of Ghanaian migrants living in the UK. Three themes cut across the findings of this thesis: (i) migrant's knowledge of their environment and how it affects healthy behaviours, (ii) the lay meaning of health which is embedded in the migrant's culture and (iii) social/cultural influences on engaging in healthy behaviours. In the following pages, I will highlight the key themes that came across the studies, unpicking salient contributions and addressing some suggested recommendations for future studies. I will discuss the methodological approach used in the research, its effectiveness, issues about reliability and validity in qualitative research findings. Implications of the research on policy will be discussed. A reflection of the whole thesis is also discussed. Findings of the studies implied a social, environmental and economic relationship that influences health beliefs and behaviours.

Summary of findings in relations to research aim

The first aim of the research was to explore the relationship between acculturation and body weight among migrants and to further explore if these studies accounted for the role played by health behaviours. Longer duration of residence was associated with greater likelihood of being overweight or obese. However, there were inconsistencies in findings according to gender suggesting a more complex relationship than is often accounted for in the literature. Studies in this review highlighted that migrants developed food consumption patterns that were reported to be similar to those observed amongst the host population.

 The second aim was to explore beliefs of health amongst migrants. There were cultural and gender differences in beliefs about health. Men were more likely to report that they were well because of how they attributed signs of wellness. Social factors such as the influence of friends and family were perceived by participants to be one of the strongest influences around health behaviours. Migrants go for cheaper and unhealthier foods that are easily accessible compared to their usual foods in their home countries, and also their inexperience with new foods lead them to buy prepackaged and processed versions. The meaning of beauty was found to be culturally defined, which influenced the way female participants engaged in healthy behaviours (such as promoting obesogenic behaviours).

The third aim was to explore the illness perceptions and its influence on help seeking. Ill health was attributed to signs and symptoms of ageing. Some identified coping strategies were regular routine visits to the medical facilities, avoiding situations that may bring about ill health, such as not engaging in risky sexual behaviours, alcohol control, diet and physical activity. The findings showed that help seeking is influenced by financial reasons (unwillingness to lose working hours and having fewer resources to seek medical attention).

Migrants' knowledge of their new environment and its influence on healthy behaviours

This thesis adds to what is known about the influences on migrant health. It highlights aspects of health that are likely to be affected by poor knowledge of their environment. Sections of the findings showed how migrants might have limited knowledge of their host environment in relations to knowledge and trust regarding healthy food choices, the effects of the weather and health services. Knowledge of the environment is essential when settling in a new environment. Johnson et al. (2006) suggest that inequalities in health outcomes in migrants

could be as a result of barriers due to lack of knowledge regarding access to healthcare, economic deprivation and lack of support from healthcare providers.

Findings from this thesis suggested that Ghanaian migrants had to adapt to foods like potatoes because of their availability. Migrants are likely to adopt eating patterns of host nation, which has been termed dietary acculturation (Satia et al., 2001). They further suggest that the host country may also adopt some of the food choices of the migrant groups. Chapter four of this thesis discussed themes relating to factors that influenced migrant's engagement in healthy behaviours. Some of the factors discussed pertained to diet of migrants in the UK. Factors that influenced choice of food were mainly availability and cost. Ghanaian participants found it hard to get their familiar foods unless they went to special shops which were scarce. A study by Lorraine, Edwards and Hartwell (2009) showed that international students did not like the English cuisine, they described it as unhealthy with high calories and tasteless. This impacted the choice of foods they ate; they had fewer choices when it came to healthier options they were familiar with. In chapter two of this thesis, a length of time in a new culture was linked to increase in body weight and in some instances obesity. One health related behaviour identified that contributed to migrant weight gain/obesity was increase in consumption of high calorie food. Most of the studies conducted suggested that migrants were more likely to adopt eating behaviours of resident population, hence the increased intake of unhealthy foods (Chen et al., 2012; Fitzgerald et al., 2006). Dietary acculturation begins at the early phase of migration. Theoretically, life course perspective has been used to explain dietary changes in migrant populations. This perspective refers to how people adopt different foods and habits over their life course (Sobal, Bisogni and Jastran 2006). This theory suggests that individual food habits are dynamic, these changes could be gradual. However in some cases these changes could be major which has been termed "turning

point". Turning point could be as a result of a change in socio economic or health status which affects the choices of usual foods that one is familiar with (Terragni, Garnweidner, Pettersen, & Mosdøl, 2014). Sobal et al (2006) suggest that migration is a "turning point" in the life course of a migrant.

To address the problem of migrants adopting unhealthy foods and habits, early health promotions/interventions could be undertaken to target migrants to encourage their already existing healthy behaviours. Terragni et al. (2014) propose that initiatives and programs in promoting migrant health should be tailored towards improving migrant access to familiar healthy foods and introduction of new healthy foods they can trust.

Migrants also discussed their perception of the impact of the weather on their health and engagement in physical activity. The Indian and Ghanaian participants came from a tropical climate and were not used to the extreme highs and lows of the UK weather. Colder seasons did not encourage outside physical activities such as walking and running. Participants also confirmed that they experienced tiredness, aches and pains which have been attributed to a lack of vitamin D in migrants from warmer climates to colder climates, with less exposure to sunlight. This also affected their routine in engaging in physical activity. This section also highlighted the importance of understanding the environment especially with the physical environment. Delavari et al. (2015) on a study of Iranian migrants in Australia found that a lack of understanding of the functions of their new environment is likely to have a negative effect on their health. A call to prevent obesity and its related illnesses suggested that, there can be a change in a person's behaviour only in a supportive environment, where supportive means a knowledge and understanding of the physical environment and structures (Burdette & Whitaker, 2004; Delavari et al., 2015).

Lay meaning of health and its impact on health behaviours.

One important area this thesis highlights is the cultural differences in the meaning of health. According to Helman (2007) culture is a major determinant of health, it affects the meaning given to health and the way people engage in healthy behaviours. There are differences in physical and psychological meaning of health across cultures (Napier et al., 2014). Findings from this thesis showed these cultural differences in the construction of what it means to be healthy.

Participants attributed being healthy as having a good diet and being physically active. An important aspect of the meaning of health to some participants was having a hospital free life, meaning not seeking medical help. This phenomenon was attributed to having good luck. Further meaning of health was not attributed to not merely the absence of illness, but the absence of severe illnesses that will lead to hospitalisation. Pollock (1993) showed that people perceived illness such as cancers or heart diseases as serious illness. Several studies have shown that people define health as the absence severe illness (Herzlich & Pierret, 1987; Hughner & Kleine, 2004; McKague & Verhoef, 2003). This meant a person saw himself/herself as healthy if the illness had not manifested physically, or was not evident. This is likely to affect medical help seeking as people are likely to wait to see physical evidence of disease before going for treatment, which might be too late. People may attribute wellness to genetics (hereditary) or good luck (Herzlich & Pierret, 1987; McKague & Verhoef, 2003). Some illnesses were seen as normal such as, every day illnesses and could be easily cured without seeking medical help.

Some studies also found out that cultural and religious beliefs could serve as a barrier in engaging in healthy behaviours: in some instances good health was attributed to blessings from God, people believe they have no control over their health and believed that engaging in

healthy behaviours like being physically active did not contribute to wellness (Caperchione et al., 2009; Evenson, Sarmiento, & Ayala, 2004; Lawton, Ahmad, Hanna, Douglas, & Hallowell, 2006).

The findings from this research help to understand how people think about their health and how it might affect their help seeking choices. Research shows that over 70% of illnesses are self-managed (Hughner & Kleine, 2004; Kleinman et al., 1978). Hughner and Kleine (2004) suggest that lay meaning of health differ within society, are influenced by factors such as age, gender and social class. They further suggested the need for cross cultural research in understanding health beliefs.

Migrants' lay beliefs about health may have cultural underpinnings, which influence their engagement in healthy behaviours. This in one way or another might account for the inequalities in health outcomes. One way of addressing inequalities in health in a culturally diverse UK is the inclusion of culturally accepted beliefs to be embedded in the design of services and interventions. Evidence shows that most people experience poor health outcomes because health care providers fail to include cultural factors in the development of programmes and provision of health services (Napier et al., 2014). Most health behaviour interventions have been designed for whole communities and the general population. Health interventions that engage specific communities and integrate particular features of the community (language, religion, beliefs) are considered more efficient and successful than those that do not (Elliot, Byrne, & Shirani, 2012). A study by Phillips et al. (2014) found that there was no difference in behaviours exhibited by an intervention and controlled group in an intervention designed to promote and improve the diet, physical activity and mental health of a community in London. Interventions to promote health in ethnic minority groups fail because they do not investigate the barriers that may arise in engaging in the intervention or because researchers fail to include the community and its resources in the design of these

interventions (Netto, Bhopal, Lederle, Khatoon, & Jackson, 2010). According to Netto et al. (2010) successful health interventions and programs incorporate cultural and religious beliefs of the target group. Interventions aimed at encouraging Muslims to stop smoking, scheduled the period of the intervention during the Ramadan period, where most Muslims were more likely to listen to religious messages (Ali, Viswanathan, & Rizvi, 2006; Taket, Koteccha, & Belling, 2003). These interventions show the importance of promoting healthy behaviour through the use of ones' religious or cultural beliefs.

Fortier (2010) suggests that migrants have the right to receive care, migrants' needs are different from the usual population and as such should have a different approach. She further states that health services could be sensitive to migrant needs by incorporating services such as different languages in health services and programs should have a cultural component targeting specific populations. To improve migrant health, policies aimed at training health workers to be sensitive to different cultures and employing people with different ethnicities as mediators and community health workers should be encouraged (Fortier, 2010).

One successful culturally sensitive intervention was aimed at encouraging healthy diet and lifestyle among female Pakistani immigrants in Melbourne (Kousar, Burns, & Lewandowski, 2008). They utilised a culturally competent approach in the design of the intervention. Participants in the study were put into smaller groups and lead by a female researcher who was part of the target group. The community was involved in the design of the intervention and materials were designed in both English and Urdu. They involved the families of the participants and trained educators from within the community who had knowledge of the culture and religion of the Pakistani women. This intervention was successful because it considered all aspects of the Pakistani community that may serve as a barrier in the success of the intervention. Netto et al. (2010) advocates for the use of ones' cultural values to encourage healthy behaviours.

Cultural/societal factors that influence health behaviours

Social and cultural factors cannot be overlooked as they do affect health beliefs and behaviours. This thesis highlighted some social and cultural factors that are likely to affect engagement in healthy behaviours. Health behaviour models such as the socio ecological systems theory, suggest that an individuals' behaviour is influenced by factors such as the family, immediate environment, society in which they find themselves, their physical environment and their culture (Fitzgerald & Spaccarotella, 2009; Stokols, 1992). Caperchione et al. (2009) found high physical inactivity prevalence in migrants; they explained that barriers such as cultural beliefs that affected their perception of health, poor understanding of the environment and economic challenges contribute to low levels of physical activities in these groups.

One of the findings of this thesis was the extent to which societal prescriptions could influence behaviours. Societal prescriptions tend to be a strong ruling factor that influences behaviour because of the social cost to the person if not abided by (the cost of going against societal norms). Findings from the research showed a complex relation between perceptions of the body pre and post migration. These differences that exist between groups may be important in contributing to acculturation. Historically in sub Saharan Africa, being overweight significantly represented wealth and good health (Renzaho & Mellor, 2010). As shown in this thesis, Ghanaian females were more inclined to obtaining a well-rounded physique as this related to cultural and societal preference. On the other hand, the participants stated that in India, younger unmarried women engage in dieting sometimes to the extreme to lose weight, or try to stay slim. Post migration there is a reduction in the urge to stay or be slim, especially if the lady is married. They further explained that in India, pressure to stay slim or be slim as a young girl is due to the preference of male suitors who prefer slimmer brides. Even though the desire to be thin and healthy is predominantly common in the British

participants, in contrast Indian participants felt more comfortable with their weight with no pressure from their new environment.

Another area in this thesis that showed influence of culture on behaviour was discussed in chapters four and five. The findings suggested that help seeking sources amongst Ghanaians such as the use of herbal medicine, faith/spiritual healing and western medication are most often combined. This finding confirms a study by Krause (2008) who found that Ghanaians in London engaged in multiple health practices, they combined spiritual healing e.g. prayer and Ghanaian traditional herbal treatment whilst having medical treatment from the National Health Service (NHS). Again, in another study in Ghana, Krause found that medical practitioners combined biomedical treatment and Christian healing in a medical facility (Krause, 2006). This implies that help seeking sources in the Ghanaian context are usually combined. Ranger (1981) suggests that a combination of spiritual healing with biomedicine by health professionals could come about as missionaries who introduced Christianity into Africa introduced biomedicine. A combination of different sources of help seeking among Ghanaian participants could be attributed to these historical events. The introduction of orthodox treatment brought to Ghana by missionaries, who also introduced Christianity (spirituality). Krause (2006) argues that this could be why there is a combination of the two sources of help seeking.

Symptoms of illnesses were referred to as normal and as a result will not need medical attention. Findings suggested that these "normal" illnesses were normally self-treated, based on recommendations from family and friends, from the local chemical seller or previous personal experiences. These factors were also seen to account for the delay in seeking biomedical help. Medical help was mostly the last resort. This however differed with the participants in the UK, even though they also used other sources of help, they had access to their GP's. This thesis highlighted that spiritual healing was normally combined with

144

orthodox means of treatment because of the belief that spiritual illness can only be treated effectively by spiritual healing. Helman (2007) suggests that people in developed countries were more likely to rate psychological and lifestyle factors as important determinants of health than those in developing nations, this was also confirmed by Furnham et al. (1999) in their study on three countries, Britain, South Africa and Uganda. Illness is commonly blamed on supernatural (witchcraft and sorcery) causes in non-industrialised countries, whilst in industrialised countries it is more related to stress from the environment, family, friends and work (Furnham et al., 1999; Helman, 2007). Culture is an important determinant of health; it affects beliefs about illness, management and treatment (use of health services) (Furnham et al., 1999; Helman, 2007). People create and maintain beliefs about health and illness in order to prevent, treat or manage illness (Young, 1983). However culture can often be misused in health research, when illness or behaviour is linked to a particular culture but in reality may be due to an underlying physical or mental condition (Helman, 2007).

LIMITATIONS

Methodological considerations

This thesis had several limitations regarding the methodology. This thesis utilised in-depth interviews or semi structured interviews as a data collection method. Interviews were used because they provide the best method to explore experiences and perceptions of participants and are a suitable tool for ethnic minority groups (Squires, 2009).

This research recruited ethnic minority groups and a sample of White British population as well as a Ghanaian home sample. The samples were purposefully selected to allow for comparison and enhance the richness of the data. Even though most participants had

knowledge of and could speak English, in some situations sentences and words used were different from my understanding as the researcher. This however was noted early on in the data collection procedure and whenever this arose as an issue, I probed further to understand the issue being discussed. According to Van Nes, Abma, Jonsson, and Deeg (2010) this is bound to happen because the meaning of language can differ from one group to another especially in migrants.

There are over a hundred different ethnicities and languages in Ghana; however the research was opened to all, even though not all ethnicities were interviewed. Interviews were conducted mainly in English; introducing the local dialects when in difficulty of explaining a situation.

Given the limited research on health of Ghanaian migrants, I chose to use qualitative methodology to explore health beliefs and behaviours of Ghanaians. The use of qualitative methods is gaining popularity and becoming more acceptable in health research, however generalisation of findings is limited (Meyrick, 2006). Quantitative approaches, for example using a questionnaire, may not have been appropriate because the aim of the research was to gain a deeper understanding of influences and differences in beliefs in the sample with different cultures (Gill, Stewart, Treasure, & Chadwick, 2008). The use of a structured questionnaire would have limited the possibility of identifying these unique experiences.

An important aspect considered in this research was not to classify groups as homogenous, but that groups differ. Individuals in the groups also differ because they tend to be affected by other factors such as biological (age, sex, gender, pre-existing health factors), education, socio economic factors (income, access to health care, social support) and environmental factors (weather, population density and pollution). This shows that results from the studies cannot be generalised and it has been argued that in these cases generalisation may lead to

cultural stereotyping (Helman, 2007). Helman (2007) explains that it is important to note behaviours and beliefs that have cultural underpinnings but this should not be reflected as representing the whole group to avoid stereotyping.

The migrant samples used for this thesis were voluntary migrants, the circumstances for migrating voluntarily differs from involuntary migrants and as a result may not reflect the opinions of involuntary migrants. Voluntary migrants' decision to leave their home countries is based on their desires and motivation; they decide when to leave their home countries and plan the process of migrating (Ottonelli & Torresi, 2013). Voluntary migrants are often motivated by the better economic and social in the host country (Cassidy, 2004). Involuntary migrants are normally forced to leave their home countries as a result of political (wars), environmental (famine) and social reasons (persecution) (United Nations Refugee Agency (UNHCR), 2012). It has been argued that while voluntary migrants might have good health, involuntary migrants like refugees might have poorer health due to the circumstances surrounding their move(Ackerman, 1997; Vincenzo et al., 2000). Voluntary and involuntary migrants may have different social and economic status. The sample for the first dataset consisted of educated participants, with a good socio economic position and may not reflect the opinions of a less educated and lower socio-economic sample.

The researcher being a Ghanaian helped in understanding perspectives of Ghanaian participants given my own lived experiences; however, being Ghanaian may have resulted in less understanding of the White British and Indian samples experiences. Less understanding of the meaning of language (Van Nes et al., 2010) in the Indian and White British sample even though all participants could speak English .

Reliability and Validity

According to Eisner (1991) an attribute of good qualitative research is to make meaning out of a seemingly confusing situation. To make meaning, qualitative research has to exhibit credibility, neutrality, dependability and transferability in the whole research process. Reliability and validity standards have often been used so that the research carried out is of good quality (Patton, 2005). Healy and Perry (2000) argue that reliability and validity are concepts used in quantitative research and cannot be used in qualitative research. Some qualitative researchers use the term dependability rather than reliability (Lincoln & Guba, 2002). This section will explain the rigorous nature of the design, data collection, analysis and reporting of findings of the research referring to Angen (2000) ensuring validity in qualitative research.

Initial stages of drafting ideas for the research: I carefully considered initial research questions by immersing myself in the migration and health literature. Research questions after the first study were determined by the findings of the first study. I careful consideration was given in selecting appropriate research methodology to help address the aims of the research.

Before and during data collection: Before the design and data collection, barriers to data collection were carefully considered. Issues on consent were discussed. These were taken notice of to help build a rapport with the target population

During analysis: I was fully aware of my subjective position and this has been discussed in this chapter. Other contributors such as my principal supervisor's role have clearly been highlighted in this thesis. I have outlined my role, qualities and abilities during the research process, because in qualitative research the role of the researcher has influence on the data and the conclusions drawn. To avoid bias I have outlined the literature and theoretical

underpinnings used in drawing conclusions. As a process of ensuring reliability, feedback was taken from participants on the initial piloting of the interview guides; colleagues working on similar projects also provided feedback on the interview guide, transcripts and the analytical procedure (Pope et al., 2000).

Credibility

Data was collected from three groups used in the two data sets (white British, Indian, Ghanaian both home and the UK). The length of the interview varied, because some participants especially the older Ghanaian sample were more eager to explain their health and gave more insights on questions asked, this helped to generate richer data.

Before data collection, participants were briefed on the study, its importance. I made sure they understood their role as participants, the consequences of being part of the research and their decision to still proceed or withdraw after the interview. No participant however withdrew from the study.

My supervisor was constantly made aware through our monthly meetings of any concerns with data collection, analysis and write-up. I shared feedback from the field with my supervisor. I constantly sought advice from colleagues with similar research and experience in collecting and analysing qualitative data from ethnic minority groups. Two interviews were conducted in a Ghanaian dialect (Twi), even though I am proficient in the Twi language, I sought the help of a Twi teacher to read and verify the transcription of the transcripts from Twi to English.

Even though the use of qualitative methodology comes with its own challenges, this research used the triangulation that helped to strengthen the results of the research. In the context of this research the concept of triangulation was the use of the different samples. The use of

three different sample groups from different geographical locations to explore a phenomenon uniquely strengthens the findings. This ensured validity by analysing research questions from different perspectives. To ensure credibility in the analytical process, my research supervisor (EAG) rated portions of the datasets. We compared codes and themes that were generated and agreement was made on the final codes and themes.

Generalisability

Findings from this research add to the little knowledge about the health beliefs of Ghanaian migrants in the UK. The findings could be transferred to similar populations (Pope & Mays, 2013). This research offers a good start to researching the health of the Ghanaian community in the UK. The unique methodological approach of comparing the white British sample, the Indian sample (large ethnic minority group) with a Ghanaian sample helps to understand the issues that are interlinked with the samples and the differences. Again, the use of a home sample and a migrant sample for the second data collection offers a unique comparison to highlight issues that affect migration and issues that still remain constant, despite migration. This research sought to use a representative sample. As there is a dearth of research on Ghanaian migrants in the UK pertaining to their health, contextualising participant's views on health, beliefs, behaviours and help seeking will assist to develop a deeper understanding of phenomenon in other research setting (Ritchie et al., 2013). The research methodology and approach could be transferred to other minority groups, to understand beliefs that affect their engagement in healthy behaviours. The method could be transferred or adapted to different minority groups.

IMPLICATIONS FOR POLICY

Findings from this research could be used to influence policies that affect migrants' health. Some key areas of this research that could influence policy could be the awareness of culturally related meaning of health on migrant health and the role of other help-seeking sources on health. The following paragraphs will highlight the main findings and their policy implications.

In this thesis it was found that recent migrants exhibited healthier behaviours. I will suggest that health promotion should target recent migrants to help encourage them to maintain their original healthy behaviours. According to Zimmerman, Kiss, and Hossain (2011) migration policies relating to health should be designed according to the different stages of migration (pre departure, travel, destination and return), they argue that the different phases has its own implications on health. They stress the fact that policies should be designed to include and recognise the diversity in migrant groups and their health risk. Health inequalities in developed countries are very complex, bearing in mind the diverse nature of the population in countries like the UK.

There were different meaning attribute to health and wellness, which differed, from the universal meaning of health. The meaning given to how healthy a person is differed with age, gender and ethnicity. There is a need for a more comprehensive approach to health promotion and service delivery factoring in elements such as age, gender and ethnicity in its development. Johnson et al. (2006) suggest that, to improve health outcomes of migrants, programs and policies on health and social care services should be tailored to suit the specific needs of that particular migrant group. This could only be done when there is an understanding of what health means to the different migrant groups through more documented research with different groups, communities and ethnicities.

Migrants may have a lesser understanding of how the new environment works and this could affect their health positively or negatively. Policies or programs targeting integration should include a health component that would help migrants to understand the effects of their new environment on their health. Men are likely to attribute good health to less frequent visits to the GP's. Older Ghanaian men may attribute symptoms of illness to aging. Campaigns should be focused on older men encouraging regular health checks. Designing and implementing services suitable to men will go a long way to encourage healthy behaviours. This could be in the form of health checks or health promotion activities in areas used by men (Smith &Robertson, 2006), for example football clubs or pubs. Clinics or health promotion events organised and run by men could also encourage men to use them (Ream, Finnegan-John &Pedersen, 2012, Robertson, 2006). Developing health messages that sound masculine will be effective in promoting healthy behaviours in men, since men view traditional healthcare services and activities as more feminine (Robertson, 2006). This, however, may not be applicable to all men, it may be differ between cultures as in what might be culturally appropriate for different groups (ethnicities).

 Ghanaian men are likely to use different health seeking channels and may seek biomedical help when they perceive symptoms to be severe such as experiencing heartache. Health care providers and GP services should be aware of the different alternative treatment that migrants may have used or might use together with their services. There should be a holistic approach in the design and implementation of health programs bearing in mind the cultural, age, gender differences in migrant groups. Green et al. (2005) argue that health professionals should think beyond behaviour and incorporate social, cultural and economic factors that are likely to affect health in the design and implementation of services.

Unlike the UK, Ghanaians have their own beliefs and practices in healing in comparison to western medicine. I am not necessarily advocating for the use of medical channels, because

if there should be a shift to more use of medical channels in Ghana, medical resources cannot meet up with demand. It is therefore apparent that all other channels for example alternative medicine be investigated and improved, to yield better results. One finding of this thesis suggested that weight gain may be seen as a positive sign of wellness in some cultures. The social cost of losing weight may be a disincentive to engage in healthy behaviours. I would therefore advocate the development of a culturally sensitive intervention to promote health.

RECOMMENDATIONS FOR FUTURE RESEARCH

This thesis provides a clear basis for understanding health beliefs and behaviours of Ghanaian migrants in the UK. Most research on African migrants carried out in the UK; tends to consider the African continent as one unit, which may influence the results of those studies. Future research should separate out migrants from Africa into their countries of origin, gender, age and socio economic status in order to understand fully the determinants of migrant health in the UK. Research on migrant health should focus more on including comparison from home countries and other host countries, to understand more of the mediating effects of migration on health to identify more explanatory factors. This could be done by employing quantitative research such as applying multiple regression statistical analysis to identify significant factors influences health in a home and migrant sample. This thesis helps to understand reasons for not engaging in health behaviours in migrants, future research however could utilise longitudinal methods to understand the changes in migrant health over time, paying attention to the health trajectory after migration. Future research could use a range of qualitative methods to explore more on the lay meanings of health. Most often there are programs that a targeted towards helping migrants to integrate in their new environment, this research suggests that such programs should also focus on helping new

migrants with their health in integrating in the host nation, understanding the physical environment.

From the findings in this thesis, future research will target the development of a potential intervention that will be aimed at targeting new migrants and following them overtime, providing them with the necessary health information (food, diet, access to services) and support to remain healthy. Future research could explore the effectiveness of equipping new migrants with the needed information and how that might influence their health in the long term.

REFLECTIONS

Reflections are needed in qualitative research in order to minimise the effects of subjectivity. This could be undertaken by the researcher reflecting on his/her own characteristics which are likely to affect the outcome of the research (Mauthner & Doucet, 2003). In this section, I will talk about myself and the issues that arose from the research process

I have a background in Population and Family Life (BA Population and Family Life, University of Cape Coast, 2008) and Population and Health (MPhil Population and Health, University of Cape Coast, 2011). I have a keen interest in qualitative research, exploring beliefs and cultural perceptions. I conducted and analysed all the interviews. As a migrant from Ghana, I can relate to issues concerning migration and understand life in the UK as an ethnic minority. This was an advantage on most occasions in helping participants feel comfortable, I think this helped me to explore in more depth but sometimes participants assumed you were aware of the situation and would throw the question back to you. *"You know what I am talking about? You do understand me? As you already know?"* (quote from

participants). I encouraged participants to continue with their conversation by asking them about the situation, they think I know about, "could you please remind me what it was about", "*what do you think I know*".

A disadvantage of being an "insider" conducting research according to Mauthner and Doucet (2003) is that the researcher could be highly concentrated on the research process that he/she is likely to miss some important patterns or emerging themes . It could also lead to familiarity where the researcher may be influence the interpretation of findings with her previous knowledge and experience (Greene, 2014). This was a situation that was unavoidable but my supervisor who was involved in the process of analysing the data brought in an outsider perspective, which reduced the effect of missing out important patterns and themes. However I did not feel like an insider collecting data for the second study in Ghana. I was seen as an outsider because I live in the UK. During interviews, I was reminded of situations in Ghana, mostly current affairs. Participants felt I was a foreigner and I needed to be given very in-depth information. One participant took me to his local drug store (small pharmacy in Ghana) to introduce me to the seller and the different drugs he purchases for the different ailments he talked about. The main disadvantage of being an outsider in Ghana was that time spent with a participant was prolonged.

As a migrant and a Ghanaian in the UK, I was in an advantageous position in recruitment, collection of data and the analytical process. Being the researcher helped me to dissect the issues of migrant health in detail and have a clear understanding of the data. I could bring an understanding from a migrant's perspective, the UK perspective and a Ghanaian perspective. My principal supervisor's perspective as white British also contributed in the development of the methodology and analysis process and provided in-depth insights in the write up of the thesis. I built a rapport with the Ghanaian participants because I was aware of the rules of engagement regarding Ghanaian traditional etiquette, especially when it came to recruiting

the older male population, e.g., the researcher having a father-daughter kind of relationship with participants, appropriate attire, courteous language was used at all times, in order not to cause provocation.

Recruiting participants came with its own challenges as well. Although all the Indian participants for dataset one had tertiary education and had a good command of English, they sometimes referred to some words or phrases in their native language which I did not understand, I constantly had to probe for further explanation in English. The Indian participants were very helpful and were eager to explain the words or terms in English. The willingness of the participants to explain terms from their local dialect to English and my listening strengthened the rapport between the participant and myself.

Before starting my data collection, I had very limited knowledge of qualitative research, limited to only focus group discussions. I had training from my principal supervisor and also engaged in few pilot interviews with feedback from my supervisor. Attending a qualitative summer school was beneficial to the process of analysing my data, I learnt how to plan, develop and manage matrices. I had constant interaction with my supervisor which helped in the development of the framework. This helped to promote transparency and good representation of data during the process of identifying codes, developing themes and matrices.

Despite being an ethnic minority there were some issues that needed to be considered before recruitment, issues such as gaining trust of participants to open up their daily lives, understanding the cultural context of inviting people for interviews or going to them and also giving a reward after an interview especially with older participants. During the process of data collection, I was aware of customs and traditions that may have potential influence on the recruitment and responses from participants. This was something that came up in the

design and data collection of the second dataset with the older Ghanaian male sample. I was aware that the Ghanaian culture had a high esteem and value for the elderly and as such caution was taken in approaching and asking questions. Questions were asked politely in order not to offend the participant, probes were asked cautiously, and in a few times, I was reminded not to interrupt when older people are talking.

In qualitative research, my role as the researcher is to make meaning from experiences of respondents. Such meanings are from my own informed perception as a researcher. The discussion above show how being a Ghanaian, migrant and also an ethnic minority affected my role as the researcher. Participants mostly assumed that as a Ghanaian and a migrant living in the UK I should be aware of some of the things that they mentioned. This made me very conscious about my role as the insider researcher and the closeness to the study.

Qualitative research can be time consuming and daunting (meeting up with unknown participants, travelling long distances, last minute cancellations) but overall, I enjoyed my time recruiting participants for the studies, interviewing them, analysing and carrying out the writing up. It was rewarding listening to participants sharing personal experiences; participants were enthusiastic about the research and willing to contribute in any way possible. The ability to build a rapport before conducting interviews helped build and improve my interpersonal skills.

I have also learnt from the research process that qualitative methodology could be used for comparison. My initial reading and consultation with some experts saw that comparison in qualitative research could not be possible because of the smaller sample size. And also qualitative methodology was not meant for comparison but to bring out unique experiences and perspectives. Upon further deliberations I found out that comparison is important especially to understand the influence of migration on health, hence my different samples.

This was achieved through purposive sampling matching the different groups used for the studies. This process helped to understand perspectives from majority ethnic minority sample (Indian migrants), minority ethnic minority sample (Ghanaian migrants) and the two home samples (white British and Ghanaians).

The principal supervisor provided an added perspective on the whole process of design, collection and analysis of data. Her experience in qualitative research as well as the framework approach gave meaningful insights to the outcome of the research. Her perspective as a non-migrant minimised the effects of being biased in the analysis process.

On the analysis of the data collected, the thematic and framework approach helped manage the huge volume of data and also provided a rigorous approach to the whole analysis (Pope & Mays, 2013). This thesis started on a very good premise. It started with a general exploration of health beliefs and behaviours, findings from the first data set influenced the aim on the next study on the meaning of health and illness and perceptions on help seeking. If I have the opportunity to continue my research, I would focus on common diseases such as Stroke, Malaria, HIV, Pneumonia (the leading cause of morbidity and mortality in Ghana) and investigate the illness perceptions and help seeking behaviours.

CONCLUDING REMARKS

This thesis provides a starting point in understanding the lay meaning of health that can affect the engagement of healthy behaviours. It is the first comparative study that examines health beliefs and behaviours of Ghanaian and Indian migrants in the UK. It is also a good basis for understanding Ghanaian men's experiences of illness and help seeking. This thesis and other similar studies, suggest that health research should be segregated in countries like the UK

where the population is very diverse. Research that is undertaken with African migrants or even West African migrants may be too broad, since most African countries within themselves are very diverse in terms of culture. Different cultures have exhibited different health belief systems (illness representation, maintenance and treatment). Knowledge of these differences is important in the design of effective interventions as well as health promotion activities that will be acceptable to patients of different cultural backgrounds. Recognising the heterogeneity of African samples in research is essential in understanding cultural perspectives in health behaviours and beliefs.

There is a need to consider cultural competence in studying and researching in health. Perceptions of health and illness do differ; ethnic minority groups have diverse belief systems and understanding these differences will help promote a better relationship between individuals and healthcare providers as well as the design of acceptable and effective health interventions.

REFERENCES

Abraído-Lanza, A. F., Armbrister, A. N., Flórez, K. R., & Aguirre, A. N. (2006). Toward a theory-driven model of acculturation in public health research. *American journal of public health, 96*(8), 1342-1346.

Acevedo, M. C. (2000). The role of acculturation in explaining ethnic differences in the prenatal health-risk behaviors, mental health, and parenting beliefs of Mexican American and European American at-risk women. *Child abuse & neglect, 24*(1), 111-127.

Ackard, D. M., Neumark-Sztainer, D., Story, M., & Perry, C. (2006). Parent–child connectedness and behavioral and emotional health among adolescents. *American journal of preventive medicine, 30*(1), 59-66.

Ackerman, L. K. (1997). Health problems of refugees. *The Journal of the American Board of Family Practice, 10*(5), 337-348.

Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist, 58*(1), 5.

Agyei-Mensah, S., & Aikins, A. D. G. (2010). Epidemiological transition and the double burden of disease in Accra, Ghana. *Journal of urban health, 87*(5), 879-897.

Agyemang, C., Addo, J., Bhopal, R., de Graft Aikins, A., & Stronks, K. (2009). Cardiovascular disease, diabetes and established risk factors among populations of sub-Saharan African descent in Europe: a literature review. *Globalization and health, 5*(1), 1.

Ahluwalia, I. B., Ford, E. S., Link, M., & Bolen, J. C. (2007). Acculturation, weight, and weight-related behaviors among Mexican Americans in the United States. *Ethnicity and Disease, 17*(4), 643.

Ahmed, S. M., Adams, A. M., Chowdhury, M., & Bhuiya, A. (2000). Gender, socioeconomic development and health-seeking behaviour in Bangladesh. *Social Science & Medicine, 51*(3), 361-371.

Ahmed, S. M., Tomson, G., Petzold, M., & Kabir, Z. N. (2005). Socioeconomic status overrides age and gender in determining health-seeking behaviour in rural Bangladesh. *Bulletin of the World Health Organization, 83*(2), 109-117.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.

Alderman, H. (1994). Ghana: Adjustment's star pupil. *Adjusting to policy failure in African economies*, 23-52.

Aldwin, C. M., Sutton, K. J., & Lachman, M. (1996). The development of coping resources in adulthood. *Journal of personality, 64*(4), 837-871.

Alhalaiqa, F., Deane, K., Nawafleh, A., Clark, A., & Gray, R. (2012). Adherence therapy for medication non-compliant patients with hypertension: a randomised controlled trial. *Journal of Human Hypertension, 26*(2), 117-126.

Ali, H., Viswanathan, P., & Rizvi, A. (2006). BHF Healthy Ramadan: Project evaluation. *British Health Foundation, London*.

Anarfi, J., Awusabo-Asare, K., & Nuamah, N. N. (2000). *Push and Pull Factors of International Migration: Country Report, Ghana*: European Commission, Statistical Office of the European Communities.

Anarfi, J., Kwankye, S., Ababio, O.-M., & Tiemoko, R. (2003). Migration from and to Ghana: A background paper. *University of Sussex: DRC on Migration, Globalisation and Poverty*.

Angen, M. J. (2000). Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue. *Qualitative Health Research, 10*(3), 378-395.

Arthur, S., Mitchell, M., Lewis, J., & Nicholls, C. M. (2014). Designing fieldwork. *Qualitative Research Practice: A Guide for Social Science Students and Researchers, 2*, 147-172.

Asche, C., LaFleur, J., & Conner, C. (2011). A review of diabetes treatment adherence and the association with clinical and economic outcomes. *Clinical therapeutics, 33*(1), 74-109.

Aseweh Abor, P., Abekah-Nkrumah, G., & Abor, J. (2008). An examination of hospital governance in Ghana. *Leadership in health services, 21*(1), 47-60.

Ashton, C. M., Haidet, P., Paterniti, D. A., Collins, T. C., Gordon, H. S., O'Malley, K., Wray, N. P. (2003). Racial and ethnic disparities in the use of health services. *Journal of general internal medicine, 18*(2), 146-152.

Avruch, K. (2015). *Context and pretext in conflict resolution: Culture, identity, power, and practice*: Routledge.

Awad, A., Eltayeb, I., Matowe, L., & Thalib, L. (2005). Self-medication with antibiotics and antimalarials in the community of Khartoum State, Sudan. *J Pharm Pharm Sci, 8*(2), 326-331.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and health, 13*(4), 623-649.

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology, 51*(2), 269-290.

Bandura, A. (2004). Health promotion by social cognitive means. *Health education & behavior, 31*(2), 143-164.

Banegas, J., Lopez-Garcia, E., Gutierrez-Fisac, J., Guallar-Castillon, P., & Rodriguez-Artalejo, F. (2003). A simple estimate of mortality attributable to excess weight in the European Union. *European Journal of Clinical Nutrition, 57*(2), 201-208.

Baron, S. L., Beard, S., Davis, L. K., Delp, L., Forst, L., Kidd‐Taylor, A., . . . Welch, L. S. (2014). Promoting integrated approaches to reducing health inequities among low-income workers: Applying a social ecological framework. *American journal of industrial medicine, 57*(5), 539-556.

Barth, F. (1969). *Ethnic groups and boundaries: The social organization of culture difference.(Results of a symposium held at the University of Bergen, 23rd to 26th February 1967.)*: Universitetsforlaget.

Bastard, M., Nicolay, N., Szumilin, E., Balkan, S., Poulet, E., & Pujades-Rodriguez, M. (2013). Adults receiving HIV care before the start of antiretroviral therapy in sub-Saharan Africa: patient outcomes and associated risk factors. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 64*(5), 455-463.

Becares, L. (2013). Which ethnic groups have the poorest health? Ethnic health inequalities 1991 to 2011: Manchester: ESRC Centre on Dynamics of Ethnicity.

Bécares, L., Cormack, D., & Harris, R. (2013). Ethnic density and area deprivation: Neighbourhood effects on Māori health and racial discrimination in Aotearoa/New Zealand. *Social Science & Medicine, 88*, 76-82.

Becker, M. H. (1974). *The health belief model and personal health behavior* (Vol. 2): Slack.

Beiser, M. (2005). The health of immigrants and refugees in Canada. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, S30-S44.

Benkeser, R., Biritwum, R., & Hill, A. (2012). Prevalence of overweight and obesity and perception of healthy and desirable body size in urban, Ghanaian women. *Ghana medical journal, 46*(2), 66-75.

Berger, J. M., Levant, R., McMillan, K. K., Kelleher, W., & Sellers, A. (2005). Impact of Gender Role Conflict, Traditional Masculinity Ideology, Alexithymia, and Age on Men's Attitudes Toward Psychological Help Seeking. *Psychology of Men & Masculinity, 6*(1), 73.

Berry, J. W. (1980). Acculturation as varieties of adaptation. *Acculturation: Theory, models and some new findings*, 9-25.

Bhopal, R. (2002). Revisiting race/ethnicity as a variable in health research. *American journal of public health, 92*(2), 156-a-157.

Biritwum, R. B., Mensah, G., Minicuci, N., Yawson, A. E., Naidoo, N., Chatterji, S., & Kowal, P. (2013). Household characteristics for older adults and study background from SAGE Ghana Wave 1. *Global health action, 6*.

Blair, A. H., & Schneeberg, A. (2014). Changes in the 'Healthy Migrant Effect' in Canada: are recent immigrants healthier than they were a decade ago? *Journal of Immigrant and Minority Health, 16*(1), 136-142.

Blanchet, N. J., Fink, G., & Osei-Akoto, I. (2012). The effect of Ghana's National Health Insurance Scheme on health care utilisation. *Ghana medical journal, 46*(2), 76-84.

Bont, A. (2014). Literature review on health seeking behaviour, health understanding and access to health care of Muony-Jang/Jieng (Dinka) in the Abyei Administrative Area.

Bordo, S. (2004). *Unbearable weight: Feminism, Western culture, and the body*: Univ of California Press.

Bourhis, R. Y., Moise, L. C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International journal of psychology, 32*(6), 369-386.

Bowling, A. (2014). *Research methods in health: investigating health and health services*: McGraw-Hill Education (UK).

Boyle, P., & Norman, P. (2009). Migration and health. *A companion to health and medical geography*, 346-374.

Braun, V., Clarke, V., & Terry, G. (2014). Thematic analysis. *Qual Res Clin Health Psychol*, 95-114.

Brewis, A. A. (2011). *Obesity: cultural and biocultural perspectives*: Rutgers University Press.

Broadbent, E., Donkin, L., & Stroh, J. C. (2011). Illness and treatment perceptions are associated with adherence to medications, diet, and exercise in diabetic patients. *Diabetes care, 34*(2), 338-340.

Bronfenbrenner, U. (1994). Ecological models of human development. *Readings on the development of children, 2*, 37-43.

Brown, C., Battista, D. R., Sereika, S. M., Bruehlman, R. D., Dunbar-Jacob, J., & Thase, M. E. (2007). Primary care patients' personal illness models for depression: relationship to coping behavior and functional disability. *General hospital psychiatry, 29*(6), 492-500.

Browne, K. (2005). Snowball sampling: using social networks to research non-heterosexual women. *International journal of social research methodology, 8*(1), 47-60.

Brug, J. (2008). Determinants of healthy eating: motivation, abilities and environmental opportunities. *Family practice, 25*(suppl 1), i50-i55.

Buor, D. (2004). Gender and the utilisation of health services in the Ashanti Region, Ghana. *Health policy, 69*(3), 375-388.

Burdette, H. L., & Whitaker, R. C. (2004). Neighborhood playgrounds, fast food restaurants, and crime: relationships to overweight in low-income preschool children. *Preventive medicine, 38*(1), 57-63.

Bush, H. M., Williams, R., Lean, M., & Anderson, A. (2001). Body image and weight consciousness among South Asian, Italian and general population women in Britain. *Appetite, 37*(3), 207-215.

Cabassa, L. J. (2003). Measuring acculturation: Where we are and where we need to go. *Hispanic Journal of Behavioral Sciences, 25*(2), 127-146.

Cachelin, F. M., Monreal, T. K., & Juarez, L. C. (2006). Body image and size perceptions of Mexican American women. *Body Image, 3*(1), 67-75.

Cameron, L. D., Leventhal, E. A., & Leventhal, H. (1995). Seeking medical care in response to symptoms and life stress. *Psychosomatic medicine, 57*(1), 37-47.

Cameron, L. D., & Leventhal, H. (2003). *The self-regulation of health and illness behaviour*: Psychology Press.

Caperchione, C. M., Kolt, G. S., & Mummery, W. K. (2009). Physical activity in culturally and linguistically diverse migrant groups to Western Society. *Sports medicine, 39*(3), 167-177.

Carballo, M., Divino, J. J., & Zeric, D. (1998). Migration and health in the European Union. *Tropical Medicine & International Health, 3*(12), 936-944.

Cassidy, C. M. (1991). The good body: when big is better. *Medical Anthropology, 13*(3), 181-213.

Chaiken, S., & Pliner, P. (1987). Women, but not Men, Are What They Eat The Effect of Meal Size and Gender on Perceived Femininity and Masculinity. *Personality and Social Psychology Bulletin, 13*(2), 166-176.

Chen, L., Juon, H.-S., & Lee, S. (2012). Acculturation and BMI among Chinese, Korean and Vietnamese adults. *Journal of community health, 37*(3), 539-546.

Choudhry, N. K., Glynn, R. J., Avorn, J., Lee, J. L., Brennan, T. A., Reisman, L., . . . Antman, E. M. (2014). Untangling the relationship between medication adherence and post–myocardial infarction outcomes: medication adherence and clinical outcomes. *American heart journal, 167*(1), 51-58. e55.

Chun, K. M., Balls Organista, P. E., & Marín, G. E. (2003). *Acculturation: Advances in theory, measurement, and applied research*. American Psychological Association.

Clare, A. (2000). *On men: masculinity in crisis* London: Chatto and Windus.

Cogan, J. C., Bhalla, S. K., Sefa-Dedeh, A., & Rothblum, E. D. (1996). A comparison study of United States and African students on perceptions of obesity and thinness. *Journal of Cross-Cultural Psychology, 27*(1), 98-113.

Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & society*, *19*(6), 829-859.

Corbett, J. (1885). Ernest George Ravenstein: The Laws of Migration. *Center for Spatially Integrated Social Science.[http://www*. csiss. org/classics/content/90], access, 2*, 2012.

Cornally, N., & McCarthy, G. (2011). Help-seeking behaviour for the treatment of chronic pain. *British journal of community nursing, 16*(2).

Courtenay, W. H. (2000). Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social science & medicine*, *50*(10), 1385-1401.

Creighton, G., & Oliffe, J. L. (2010). Theorising masculinities and men's health: A brief history with a view to practice. *Health Sociology Review, 19*(4), 409-418.

Crespo, C. J., Smit, E., Carter-Pokras, O., & Andersen, R. (2001). Acculturation and leisure-time physical inactivity in Mexican American adults: results from NHANES III, 1988-1994. *American Journal of Public Health, 91*(8), 1254-1257.

Crespo, C. J., Smit, E., Andersen, R. E., Carter-Pokras, O., & Ainsworth, B. E. (2000). Race/ethnicity, social class and their relation to physical inactivity during leisure time:

results from the Third National Health and Nutrition Examination Survey, 1988–1994. *American journal of preventive medicine*, *18*(1), 46-53.

Crone, D., Smith, A., & Gough, B. (2004). 'I feel totally at one, totally alive and totally happy': a psycho-social explanation of the physical activity and mental health relationship. *Health education research*, *20*(5), 600-611.

Cruz, F. A. D., Padilla, G. V., & Agustin, E. O. (2000). Adapting a measure of acculturation for cross-cultural research. *Journal of Transcultural Nursing, 11*(3), 191-198.

Cuellar, I., Nyberg, B., Maldonado, R. E., & Roberts, R. E. (1997). Ethnic identity and acculturation in a young adult Mexican‐ origin population. *Journal of Community Psychology, 25*(6), 535-549.

Czaika, M., & Haas, H. (2014). The globalization of migration: Has the world become more migratory? *International Migration Review, 48*(2), 283-323.

Dalinjong, P. A., & Laar, A. S. (2012). The national health insurance scheme: perceptions and experiences of health care providers and clients in two districts of Ghana. *Health economics review, 2*(1), 1.

Darmon, N., & Khlat, M. (2001). An overview of the health status of migrants in France, in relation to their dietary practices. *Public health nutrition, 4*(02), 163-172.

De Graft Aikins, A., Anum, A., Agyemang, C., Addo, J., & Ogedegbe, O. (2012). Lay representations of chronic diseases in Ghana: implications for primary prevention. *Ghana medical journal, 46*(2), 59-68.

Delamothe, T. (2008). Founding principles. *BMJ, 336*(7655), 1216-1218.

Delavari, M., Farrelly, A., Renzaho, A., Mellor, D., & Swinburn, B. (2013). Experiences of migration and the determinants of obesity among recent Iranian immigrants in Victoria, Australia. *Ethnicity & health, 18*(1), 66-82.

Delavari, M., Sønderlund, A. L., Mellor, D., Mohebbi, M., & Swinburn, B. (2015). Migration, Acculturation and Environment: Determinants of Obesity among Iranian Migrants in Australia. *International journal of environmental research and public health, 12*(2), 1083-1098.

Delavari, M., Sønderlund, A. L., Swinburn, B., Mellor, D., & Renzaho, A. (2013). Acculturation and obesity among migrant populations in high income countries–a systematic review. *BMC public health, 13*(1), 458.

Diamond, T. H., Eisman, J. A., Mason, R. S., Nowson, C. A., Pasco, J. A., Sambrook, P. N., & Wark, J. D. (2005). Vitamin D and adult bone health in Australia and New Zealand: a position statement. *Medical journal of Australia, 182*(6), 281-285.

Diefenbach, M. A., & Leventhal, H. (1996). The common-sense model of illness representation: Theoretical and practical considerations. *Journal of social distress and the homeless, 5*(1), 11-38.

Dominguez, L. J., Galioto, A., Pineo, A., Ferlisi, A., Vernuccio, L., Belvedere, M., . . . Barbagallo, M. (2008). Blood pressure and cardiovascular risk profiles of Africans who migrate to a Western country. *Ethnicity & disease, 18*.

Donkor, E. S., Tetteh-Quarcoo, P. B., Nartey, P., & Agyeman, I. O. (2012). Self-medication practices with antibiotics among tertiary level students in Accra, Ghana: a cross-sectional study. *International journal of environmental research and public health, 9*(10), 3519-3529.

Duda, R. B., Darko, R., Seffah, J., Adanu, R., Anarfi, J. K., & Hill, A. G. (2007). Prevalence of obesity in women of Accra, Ghana. *African Journal of Health Sciences, 14*(3), 154-159.

Duda, R. B., Jumah, N. A., Hill, A. G., Seffah, J., & Biritwum, R. (2006). Interest in healthy living outweighs presumed cultural norms for obesity for Ghanaian women. *Health and quality of life outcomes, 4*(1), 1.

Duggal, R., & Gangolli, L. V. (2005). Introduction to review of healthcare in India. *Gangolli LV, Duggal R., Shukla A., Review of Healthcare in India. Bombay, CEHAT*, 3-18.

Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*: Prentice Hall.

Elliot, E., Byrne, E., & Shirani, F. (2012). Connected Communities: a review of theories, concepts and interventions relating to community-level strengths and their impact on health and well being. *London: Arts and Humanities Research Council*.

Elliott, R., Fischer, C. T., & Rennie, D. L. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology, 38*(3), 215-229.

Emanuel, A. S., McCully, S. N., Gallagher, K. M., & Updegraff, J. A. (2012). Theory of Planned Behavior explains gender difference in fruit and vegetable consumption. *Appetite, 59*(3), 693-697.

Erens, B., Primatesta, P., & Prior, G. (2001). *Health Survey for England: The Health of Minority Ethnic Groups*. London Stationery Office.

Evans, J., Chapple, A., Salisbury, H., Corrie, P., & Ziebland, S. (2014). "It can't be very important because it comes and goes"—patients' accounts of intermittent symptoms preceding a pancreatic cancer diagnosis: a qualitative study. *BMJ open, 4*(2), e004215.

Evenson, K. R., Sarmiento, O. L., & Ayala, G. X. (2004). Acculturation and physical activity among North Carolina Latina immigrants. *Social Science & Medicine, 59*(12), 2509-2522.

Factor, R., Kawachi, I., & Williams, D. R. (2011). Understanding high-risk behavior among non-dominant minorities: A social resistance framework. *Social Science & Medicine, 73*(9), 1292-1301.

Feng, J., Glass, T. A., Curriero, F. C., Stewart, W. F., & Schwartz, B. S. (2010). The built environment and obesity: a systematic review of the epidemiologic evidence. *Health & place, 16*(2), 175-190.

Fitzgerald, N., Himmelgreen, D., Damio, G., Segura-Pérez, S., Peng, Y.-K., & Pérez-Escamilla, R. (2006). Acculturation, socioeconomic status, obesity and lifestyle factors among low-income Puerto Rican women in Connecticut, US, 1998-1999. *Revista Panamericana de Salud Pública, 19*(5), 306-313.

Fitzgerald, N., & Spaccarotella, K. (2009). Barriers to a healthy lifestyle: from individuals to public policy—an ecological perspective. *Journal of Extension, 47*(1), 1-8.

Fortier, J. P. (2010). Migrant-sensitive health systems. *Health of Migrants-The way forward. Report of a global consultation. Madrid, Spain, 3-5 March 2010*.

Frisbie, W. P., Cho, Y., & Hummer, R. A. (2001). Immigration and the health of Asian and Pacific Islander adults in the United States. *American Journal of Epidemiology, 153*(4), 372-380.

Furnham, A., Akande, D., & Baguma, P. (1999). Beliefs about health and illness in three countries: Britain, South Africa and Uganda. *Psychology, Health & Medicine, 4*(2), 189-201.

Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help- seeking behaviour: literature review. *Journal of advanced nursing, 49*(6), 616-623.

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC medical research methodology, 13*(1), 117.

Gans, H. J. (1979). Symbolic ethnicity: The future of ethnic groups and cultures in America*. *Ethnic and racial studies, 2*(1), 1-20.

Geissler, P. W., Nokes, K., Prince, R. J., Achieng'Odhiambo, R., Aagaard-Hansen, J., & Ouma, J. H. (2000). Children and medicines: self-treatment of common illnesses among Luo schoolchildren in western Kenya. *Social Science & Medicine, 50*(12), 1771-1783.

Gholap, N., Davies, M., Patel, K., Sattar, N., & Khunti, K. (2011). Type 2 diabetes and cardiovascular disease in South Asians. *Primary Care Diabetes, 5*(1), 45-56.

Gilbert, P. A., & Khokhar, S. (2008). Changing dietary habits of ethnic groups in Europe and implications for health. *Nutrition reviews, 66*(4), 203-215.

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British dental journal, 204*(6), 291-295.

Gobah, F. F., & Liang, Z. (2011). The National Health Insurance Scheme in Ghana: prospects and challenges: a cross-sectional evidence. *Global Journal of Health Science, 3*(2), 90.

Gochman, D. S. (2013). *Handbook of health behavior research II: Provider determinants*: Springer Science & Business Media.

Goldin, I., Cameron, G., & Balarajan, M. (2012). *Exceptional people: How migration shaped our world and will define our future*: Princeton University Press.

Goldman, R., Hunt, M. K., Allen, J. D., Hauser, S., Emmons, K., Maeda, M., & Sorensen, G. (2003). The life history interview method: applications to intervention development. *Health education & behavior, 30*(5), 564-581.

Gordon, M. M. (1964). *Assimilation in American life: The role of race, religion, and national origins*: Oxford University Press on Demand.

Gough, B. (2006). Try to be healthy, but don't forgo your masculinity: Deconstructing men's health discourse in the media. *Social Science & Medicine, 63*(9), 2476-2488.

Green, B. L., Lewis, R. K., & Bediako, S. M. (2005). Reducing and eliminating health disparities: a targeted approach. *Journal of the National Medical Association, 97*(1), 25.

Greene, M. J. (2014). On the inside looking in: Methodological insights and challenges in conducting qualitative insider research. *The qualitative report, 19*(29), 1-13.

Griffith, D. M., Allen, J. O., & Gunter, K. (2010). Social and cultural factors influence African American men's medical help seeking. *Research on Social Work Practice*, 1049731510388669.

Grigg, D. (1977). EG Ravenstein and the "laws of migration". *Journal of Historical geography, 3*(1), 41-54.

Grigg, D. (1995). The nutritional transition in Western Europe. *Journal of Historical Geography, 21*(3), 247.

Grogan, S. C., Bell, R., & Conner, M. (1997). Eating sweet snacks: gender differences in attitudes and behaviour. *Appetite, 28*(1), 19-31.

Gupta, M., Chaturvedi, S., Chandarana, P., & Johnson, A. (2001). Weight-related body image concerns among 18–24-year-old women in Canada and India: An empirical comparative study. *Journal of Psychosomatic Research, 50*(4), 193-198.

Gyssens, I. C. (2001). Quality measures of antimicrobial drug use. *International journal of antimicrobial agents, 17*(1), 9-19.

Hale, S., Grogan, S., & Willott, S. (2010). Male GPs' views on men seeking medical help: a qualitative study. *British journal of health psychology, 15*(4), 697-713.

Hampson, S. E., Edmonds, G. W., Barckley, M., Goldberg, L. R., Dubanoski, J. P., & Hillier, T. A. (2016). A Big Five approach to self-regulation: personality traits and health trajectories in the Hawaii longitudinal study of personality and health. *Psychology, health & medicine, 21*(2), 152-162.

Harding, S., Rosato, M., & Teyhan, A. (2008). Trends for coronary heart disease and stroke mortality among migrants in England and Wales, 1979–2003: slow declines notable for some groups. *Heart, 94*(4), 463-470.

Hazuda, H. P., Haffner, S. M., Stern, M. P., & Eifler, C. W. (1988). Effects of acculturation and socioeconomic status on obesity and diabetes in Mexican Americans The San Antonio heart study. *American Journal of Epidemiology, 128*(6), 1289-1301.

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative market research: An international journal, 3*(3), 118-126.

Helman, C. G. (2007). *Culture, health and illness*: CRC Press.

Herbert, J., Datta, K., Evans, Y., May, J., McIlwaine, C., & Wills, J. (2006). Multiculturalism at work: The experiences of Ghanaians in London. *Department of Geography, Queen Mary, University of London*.

Herzlich, C., & Pierret, J. (1987). *Illness and self in society*. Baltimore: The John Hopkins Press.

Hevi, J. (1989). In Ghana, conflict and complementarity. *The Hastings Center Report, 19*(4), 5-7.

Higbed, L., & Fox, J. R. (2010). Illness perceptions in anorexia nervosa: a qualitative investigation. *British Journal of Clinical Psychology, 49*(3), 307-325.

Holmboe-Ottesen, G., & Wandel, M. (2012). Changes in dietary habits after migration and consequences for health: a focus on South Asians in Europe. *Food & nutrition research, 56*.

Horne, R., & Weinman, J. (2002). Self-regulation and self-management in asthma: exploring the role of illness perceptions and treatment beliefs in explaining non-adherence to preventer medication. *Psychology and Health, 17*(1), 17-32.

Howell, D., Smith, A., & Roman, E. (2008). Help‐ seeking behaviour in patients with lymphoma. *European journal of cancer care, 17*(4), 394-403.

Hughes, C. M., McElnay, J. C., & Fleming, G. F. (2001). Benefits and risks of self medication. *Drug safety, 24*(14), 1027-1037.

Hughner, R. S., & Kleine, S. S. (2004). Views of health in the lay sector: a compilation and review of how individuals think about health. *Health:, 8*(4), 395-422.

Jayawardene, R. (1993). Illness perception: social cost and coping-strategies of malaria cases. *Social Science & Medicine, 37*(9), 1169-1176.

Jayaweera, H. (2011). Health of migrants in the UK: What do we know. *The migration observatory, University of Oxford*.

Jehu-Appiah, C., Aryeetey, G., Agyepong, I., Spaan, E., & Baltussen, R. (2012). Household perceptions and their implications for enrolment in the National Health Insurance Scheme in Ghana. *Health Policy and Planning, 27*(3), 222-233.

Johnson, M. R., Phillips, D., Rudiger, A., Somerville, W., Wintour, P., & Warren, S. (2006). *Refugees and other new migrants: a review of the evidence on successful approaches to integration*. London: Home Office.

Kasl, S. V., & Cobb, S. (1966). Health behavior, illness behavior and sick role behavior: I. Health and illness behavior. *Archives of Environmental Health: An International Journal, 12*(2), 246-266.

Kaplan, C. P., Erickson, P. I., & Juarez-Reyes, M. (2002). Acculturation, gender role orientation, and reproductive risk-taking behavior among Latina adolescent family planning clients. *Journal of Adolescent Research*, *17*(2), 103-121.

Keller, A., & Baune, B. T. (2005). Impact of social factors on health status and help seeking behavior among migrants and Germans. *Journal of Public Health, 13*(1), 22-29.

Kirigia, J., Preker, A., Carrin, G., Mwikisa, C., & Diarra-Nama, A. (2006). An overview of health financing patterns and the way forward in the WHO African Region. *East African medical journal, 83*(9), S1-S28.

Kishwar, M. (1995). When India 'missed'the universe. *Manushi, 88*, 26-31.

Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, illness, and care: clinical lessons from anthropologic and cross-cultural research. *Annals of internal medicine, 88*(2), 251-258.

Kmet, L. M., Lee, R. C., & Cook, L. S. (2004). *Standard quality assessment criteria for evaluating primary research papers from a variety of fields* (Vol. 22). Edmonton: Alberta Heritage Foundation for Medical Research.

Knipscheer, J. W., De Jong, E. E., Kleber, R. J., & Lamptey, E. (2000). Ghanaian migrants in the Netherlands: General health, acculturative stress and utilization of mental health care. *Journal of Community Psychology, 28*(4), 459-476.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*: FT press.

Kousar, R., Burns, C., & Lewandowski, P. (2008). A culturally appropriate diet and lifestyle intervention can successfully treat the components of metabolic syndrome in female Pakistani immigrants residing in Melbourne, Australia. *Metabolism, 57*(11), 1502-1508.

Krause, K. (2006). A Case Study in a Psychiatric Hospital (Ghana). *Multiple Medical Realities: Patients and Healers in Biomedical, Alternative, and Traditional Medicine, 4*, 54.

Krause, K. (2008). Transnational therapy networks among Ghanaians in London. *Journal of Ethnic and Migration Studies, 34*(2), 235-251.

Kucukarslan, S. N. (2012). A review of published studies of patients' illness perceptions and medication adherence: lessons learned and future directions. *Research in Social and Administrative Pharmacy, 8*(5), 371-382.

Landrine, H., & Klonoff, E. A. (1994). Cultural diversity in causal attributions for illness: The role of the supernatural. *Journal of behavioral medicine, 17*(2), 181-193.

Landrine, H., & Klonoff, E. A. (2004). Culture change and ethnic-minority health behavior: an operant theory of acculturation. *Journal of Behavioral Medicine*, *27*(6), 527-555.

Lara, M., Gamboa, C., Kahramanian, M. I., Morales, L. S., & Hayes Bautista, D. E. (2005). Acculturation and Latino health in the United States: a review of the literature and its sociopolitical context. *Annu. Rev. Public Health*, *26*, 367-397.

Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. *Qualitative research in psychology, 3*(2), 102-120.

Lawton, J., Ahmad, N., Hanna, L., Douglas, M., & Hallowell, N. (2006). 'I can't do any serious exercise': barriers to physical activity amongst people of Pakistani and Indian origin with Type 2 diabetes. *Health education research, 21*(1), 43-54.

Lee, E. S. (1966). A theory of migration. *Demography, 3*(1), 47-57.

Leventhal, E. A. (2003). self-regulation of health. *The self-regulation of health and illness behaviour*, 42.

Leventhal, H., Benyamini, Y., Brownlee, S., Diefenbach, M., Leventhal, E. A., Patrick-Miller, L., & Robitaille, C. (1997). Illness representations: theoretical foundations. *Perceptions of health and illness, 2*, 19-46.

Leventhal, H., Phillips, L. A., & Burns, E. (2016). The Common-Sense Model of Self-Regulation (CSM): A dynamic framework for understanding illness self-management. *Journal of Behavioral Medicine*, 1-12.

Liddell, C., Barrett, L., & Bydawell, M. (2005). Indigenous representations of illness and AIDS in Sub-Saharan Africa. *Social Science & Medicine, 60*(4), 691-700.

Lincoln, Y. S., & Guba, E. G. (2002). Judging the quality of case study reports. *The qualitative researcher's companion*, 205-215.

Lloyd, C. E., Johnson, M. R., Mughal, S., Sturt, J. A., Collins, G. S., Roy, T., . . . Barnett, A. H. (2008). Securing recruitment and obtaining informed consent in minority ethnic groups in the UK. *BMC Health Services Research, 8*(1), 68.

López, J. J., Dennis, R., & Moscoso, S. M. (2009). A study of self-medication in a neighborhood in Bogotá. *Revista de Salud Pública, 11*(3), 432-442.

Luengo-Fernandez, R., Leal, J., Gray, A., Petersen, S., & Rayner, M. (2006). Cost of cardiovascular diseases in the United Kingdom. *Heart, 92*(10), 1384-1389.

Macintyre, S., Ford, G., & Hunt, K. (1999). Do womenover-report'morbidity? Men's and women's responses to structured prompting on a standard question on long standing illness. *Social Science & Medicine, 48*(1), 89-98.

Marín, G., & Gamba, R. J. (1996). A new measurement of acculturation for Hispanics: The Bidimensional Acculturation Scale for Hispanics (BAS). *Hispanic Journal of Behavioral Sciences, 18*(3), 297-316.

Marsiglia, F. F., Kulis, S., FitzHarris, B., & Becerra, D. (2009). *Acculturation gaps and problem behaviors among US Southwestern Mexican youth.* Paper presented at the Social work forum (New York, NY).

Marteau, T. M., & Senior, V. (1997). Illness representations after the human genome project: the perceived role of genes in causing illness. *Perceptions of health and illness. Current research and applications. Amsterdam (NL): Harwood Academic Publishers*, 241-266.

Mauthner, N. S., & Doucet, A. (2003). Reflexive accounts and accounts of reflexivity in qualitative data analysis. *Sociology, 37*(3), 413-431.

McCabe, M. P., Mellor, D., Ricciardelli, L. A., Mussap, A. J., & Hallford, D. J. (2015). Ecological model of Australian indigenous men's health. *American journal of men's health*, 1557988315583086.

McKague, M., & Verhoef, M. (2003). Understandings of health and its determinants among clients and providers at an urban community health center. *Qualitative Health Research, 13*(5), 703-717.

Messner, M. A. (1992). *Power at play: Sports and the problem of masculinity*. Beacon Press.

Meyrick, J. (2006). What is good qualitative research? A first step towards a comprehensive approach to judging rigour/quality. *Journal of health psychology, 11*(5), 799-808.

Mills, A., Ataguba, J. E., Akazili, J., Borghi, J., Garshong, B., Makawia, S., . . . Meheus, F. (2012). Equity in financing and use of health care in Ghana, South Africa, and Tanzania: implications for paths to universal coverage. *The Lancet, 380*(9837), 126-133.

Mills, E. J., Beyrer, C., Birungi, J., & Dybul, M. R. (2012). Engaging men in prevention and care for HIV/AIDS in Africa. *PLoS Med, 9*(2), e1001167.

Mladovsky, P., Ingleby, D., & Rechel, B. (2012). Good practices in migrant health: the European experience. *Clinical medicine, 12*(3), 248-252.

Mumford, D. B., Whitehouse, A. M., & Platts, M. (1991). Sociocultural correlates of eating disorders among Asian schoolgirls in Bradford. *The British Journal of Psychiatry, 158*(2), 222-228.

Napier, A. D., Ancarno, C., Butler, B., Calabrese, J., Chater, A., Chatterjee, H., . . . Jadhav, S. (2014). Culture and health. *The Lancet, 384*(9954), 1607-1639.

Natarajan, L. (2006). Self-reported health and psychosocial well-being. *The health of minority ethnic groups*, 25.

Netto, G., Bhopal, R., Lederle, N., Khatoon, J., & Jackson, A. (2010). How can health promotion interventions be adapted for minority ethnic communities? Five principles

for guiding the development of behavioural interventions. *Health Promotion International, 25*(2), 248-257.

Ngo, V. H. (2008). A critical examination of acculturation theories. *Critical Social Work, 9*(1), 1-6.

Norman, P., Boyle, P., & Rees, P. (2005). Selective migration, health and deprivation: a longitudinal analysis. *Social Science & Medicine, 60*(12), 2755-2771.

O'Donnell, C., Burns, N., Dowrick, C., Lionis, C., & MacFarlane, A. (2013). Health-care access for migrants in Europe. *The Lancet, 382*(9890), 393.

Ogden, J. (2012). *Health psychology*: McGraw-Hill Education (UK).

Oliffe, J. L., Ogrodniczuk, J. S., Bottorff, J. L., Johnson, J. L., & Hoyak, K. (2012). "You feel like you can't live anymore": Suicide from the perspectives of Canadian men who experience depression. *Social Science & Medicine, 74*(4), 506-514.

Oppong-Anane, K. (2006). Country Pasture/Forage Resource Profiles. *Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extensions, FAO, Rome, Italy*.

Ottonelli, V., & Torresi, T. (2013). When is migration voluntary? *International Migration Review, 47*(4), 783-813.

Owusu- Daaku, F. T., & Smith, F. J. (2005). Health- seeking behaviour: perspectives of Ghanaian women in London and Kumasi. *International Journal of Pharmacy Practice, 13*(1), 71-76.

Park, R. E. (1928). Human migration and the marginal man. *American journal of sociology*, 881-893.

Patel, M., Phillips-Caesar, E., & Boutin-Foster, C. (2012). Barriers to lifestyle behavioral change in migrant South Asian populations. *Journal of Immigrant and Minority Health, 14*(5), 774-785.

Patterson, K. D. (1981). *Health in Colonial Ghana: disease, medicine, and socio-economic change, 1900-1955*: Epstein Building, Brandeis University, Waltham, Massachusetts 02254, USA; Crossroads Press.

Patton, M. Q. (2005). *Qualitative research*: Wiley Online Library.

Peil, M. (1995). Ghanaians abroad. *African affairs, 94*(376), 345-367.

Petrie, K., & Weinman, J. (2006). Why illness perceptions matter. *Clinical medicine, 6*(6), 536-539.

Phillimore, J., & Goodson, L. (2004). *Qualitative research in tourism: Ontologies, epistemologies and methodologies* (Vol. 14): Psychology Press.

Phillips, G., Bottomley, C., Schmidt, E., Tobi, P., Lais, S., Yu, G., . . . Moore, D. (2014). Well London Phase-1: results among adults of a cluster-randomised trial of a community engagement approach to improving health behaviours and mental well-being in deprived inner-city neighbourhoods. *Journal of epidemiology and community health*, jech-2013-202505.

Pliner, P., & Chaiken, S. (1990). Eating, social motives, and self-presentation in women and men. *Journal of Experimental Social Psychology, 26*(3), 240-254.

Polhemus, T. (1978). *Social aspects of the human body*: Penguin Books.

Pollock, K. (1993). Attitude of mind as a means of resisting illness. *Worlds of illness: Biographical and cultural perspectives on health and disease*, 49-70.

Pope, C., & Mays, N. (1995). Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ: British Medical Journal, 311*(6996), 42.

Pope, C., & Mays, N. (2013). *Qualitative research in health care*: John Wiley & Sons.

Pope, C., Ziebland, S., & Mays, N. (2000). Analysing qualitative data. *BMJ, 320*(7227), 114-116.

Popkin, B. M. (2011). Contemporary nutritional transition: determinants of diet and its impact on body composition. *Proceedings of the Nutrition Society, 70*(01), 82-91.

Popkin, B. M., Adair, L. S., & Ng, S. W. (2012). Global nutrition transition and the pandemic of obesity in developing countries. *Nutrition reviews, 70*(1), 3-21.

Råberg, M., Kumar, B., Holmboe-Ottesen, G., & Wandel, M. (2010). Overweight and weight dissatisfaction related to socio-economic position, integration and dietary indicators among south Asian immigrants in Oslo. *Public health nutrition, 13*(05), 695-703.

Ranger, T. O. (1981). Godly medicine: the ambiguities of medical mission in Southeast Tanzania, 1900–1945. *Social Science & Medicine. Part B: Medical Anthropology, 15*(3), 261-277.

Rao, V. N., & Rao, V. P. (1990). Desired qualities in a future mate in India. *International journal of Sociology of the Family*, 181-198.

Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society of London, 48*(2), 167-235.

Ream, E., Finnegan-John, M. J., & Pedersen, M. V. H. (2012). Evaluation of a Community-based Prostate Health Clinic in London. *King's College London*.

Rechel, B., Mladovsky, P., Devillé, W., Rijks, B., Petrova-Benedict, R., & McKee, M. (2011). Migration and health in the European Union: an introduction *Migration and health in the European Union* (pp. 3-13): Open University Press, Maidenhead.

Rechel, B., Mladovsky, P., Ingleby, D., Mackenbach, J. P., & McKee, M. (2013). Migration and health in an increasingly diverse Europe. *The Lancet, 381*(9873), 1235-1245.

Redwood, S., & Gill, P. S. (2013). Under-representation of minority ethnic groups in research—call for action. *Br J Gen Pract, 63*(612), 342-343.

Renzaho, A. (2004). Fat, rich and beautiful: changing socio-cultural paradigms associated with obesity risk, nutritional status and refugee children from sub-Saharan Africa. *Health & place, 10*(1), 105-113.

Renzaho, A., McCabe, M., & Swinburn, B. (2012). Intergenerational differences in food, physical activity, and body size perceptions among African migrants. *Qualitative Health Research, 22*(6), 740-754.

Renzaho, A., & Mellor, D. (2010). Applying socio-cultural lenses to childhood obesity prevention among African migrants to high-income western countries: the role of acculturation, parenting and family functioning. *International Journal of Migration, Health and Social Care, 6*(1), 34-42.

Renzaho, A., Swinburn, B., & Burns, C. (2008). Maintenance of traditional cultural orientation is associated with lower rates of obesity and sedentary behaviours among African migrant children to Australia. *International journal of obesity, 32*(4), 594-600.

Reynolds, L., & McKee, M. (2012). Opening the oyster: the 2010–11 NHS reforms in England. *Clinical medicine, 12*(2), 128-132.

Richards, M. (1996). Families, kinship and genetics. *The troubled helix: Social and psychological implications of the new human genetics*, 249-273.

Rienzo, C. (2013). Characteristics and outcomes of migrants in the UK labour market. *Migration Observatory Briefing.*

Rienzo, C., & Vargas-Silva, C. (2012). Migrants in the UK: An overview. *Migration Observatory briefing. Oxford: COMPAS, University of Oxford*.

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers*: Sage.

Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. *The qualitative researcher's companion, 573*, 305-329.

Robertson, S. (2006). 'Not living life in too much of an excess': lay men understanding health and well-being. *Health:, 10*(2), 175-189.

Rolls, B. J., Fedoroff, I. C., & Guthrie, J. F. (1991). Gender differences in eating behavior and body weight regulation. *Health Psychology, 10*(2), 133.

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the health belief model. *Health education & behavior, 15*(2), 175-183.

Sabuni, L. P. (2007). Dilemma with the local perception of causes of illnesses in central Africa: muted concept but prevalent in everyday life. *Qualitative Health Research, 17*(9), 1280-1291.

Saeed, B., Yawson, A., Nguah, S., Agyei-Baffour, P., Emmanuel, N., & Ayesu, E. (2016). Effect of socio-economic factors in utilization of different healthcare services among older adult men and women in Ghana. *BMC Health Services Research, 16*(1), 390.

Sallis, J. F., & Glanz, K. (2006). The role of built environments in physical activity, eating, and obesity in childhood. *The future of children*, 89-108.

Sam, D. L., & Berry, J. W. (2006). *The Cambridge handbook of acculturation psychology*: Cambridge University Press.

Sam, D. L., & Berry, J. W. (2010). Acculturation when individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science, 5*(4), 472-481.

Sandelowski, M. (1995). Sample size in qualitative research. *Research in nursing & health, 18*(2), 179-183.

Sanou, D., O'Reilly, E., Ngnie-Teta, I., Batal, M., Mondain, N., Andrew, C., . . . Bourgeault, I. L. (2014). Acculturation and nutritional health of immigrants in Canada: a scoping review. *Journal of Immigrant and Minority Health, 16*(1), 24-34.

Satia, J. A., Patterson, R. E., Kristal, A. R., Hislop, T. G., Yasui, Y., & Taylor, V. M. (2001). Development of scales to measure dietary acculturation among Chinese-Americans and Chinese-Canadians. *Journal of the American Dietetic Association, 101*(5), 548-553.

Sato, A., & Costa-i-Font, J. (2012). Does culture matter at all in explaining why people still use traditional medicines? *LSE Health working papers*(27).

Scarborough, P., Bhatnagar, P., Kaur, A., Wickramasinghe, K., & Rayner, M. (2010). Ethnic differences in cardiovascular disease. *British Heart Foundation Health Promotion Research Group: British Heart Foundation*.

Schmiedl, S., Rottenkolber, M., Hasford, J., Rottenkolber, D., Farker, K., Drewelow, B., ... & Thürmann, P. (2014). Self-medication with over-the-counter and prescribed drugs causing adverse-drug-reaction-related hospital admissions: results of a prospective, long-term multi-centre study. *Drug safety*, *37*(4), 225-235.

Schouten, B. C., & Meeuwesen, L. (2006). Cultural differences in medical communication: a review of the literature. *Patient education and counseling, 64*(1), 21-34.

Schwartz, G. (1982). Testing the biopsychosocial model: The ultimate challenge facing behavioral medicine? *Journal of Consulting and Clinical Psychology, 50*(6), 1040.

Sclafer, J., Slamet, L., & De Visscher, G. (1997). Appropriateness of self- medication: method development and testing in urban Indonesia. *Journal of clinical pharmacy and therapeutics, 22*(4), 261-272.

Scott, S., Walter, F., Webster, A., Sutton, S., & Emery, J. (2013). The model of pathways to treatment: conceptualization and integration with existing theory. *British journal of health psychology, 18*(1), 45-65.

Shankar, P., Partha, P., & Shenoy, N. (2002). Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal: a questionnaire-based study. *BMC family practice, 3*(1), 1.

Shavers, V. L., Shankar, S., & Alberg, A. J. (2002). Perceived access to health care and its influence on the prevalence of behavioral risks among urban African Americans. *Journal of the National Medical Association, 94*(11), 952.

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of consumer research, 15*(3), 325-343.

Shetty, P. (2013). Nutrition transition and its health outcomes. *The Indian Journal of Pediatrics, 80*(1), 21-27.

Skelton, J. A., & Croyle, R. T. (2012). *Mental representation in health and illness*: Springer Science & Business Media.

Sloan, C., Gough, B., & Conner, M. (2010). Healthy masculinities? How ostensibly healthy men talk about lifestyle, health and gender. *Psychology and Health, 25*(7), 783-803.

Smith, J. (2015). *Qualitative psychology: A practical guide to research methods*: Sage.

Smith, L. K., Pope, C., & Botha, J. L. (2005). Patients' help-seeking experiences and delay in cancer presentation: a qualitative synthesis. *The Lancet, 366*(9488), 825-831.

Smith, N. R., Kelly, Y. J., & Nazroo, J. Y. (2012). The effects of acculturation on obesity rates in ethnic minorities in England: evidence from the Health Survey for England. *The European Journal of Public Health, 22*(4), 508-513.

Smith, T. W., & Ruiz, J. M. (2002). Psychosocial influences on the development and course of coronary heart disease: current status and implications for research and practice. *Journal of consulting and clinical psychology, 70*(3), 548.

Squires, A. (2009). Methodological challenges in cross-language qualitative research: a research review. *International journal of nursing studies, 46*(2), 277-287.

Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *The american Economic review, 75*(2), 173-178.

Stewart, T. L., Chipperfield, J. G., Perry, R. P., & Weiner, B. (2012). Attributing illness to 'old age:' Consequences of a self-directed stereotype for health and mortality. *Psychology & health, 27*(8), 881-897.

Stokols, D. (1992). Establishing and maintaining healthy environments: Toward a social ecology of health promotion. *American Psychologist, 47*(1), 6-22.

Suls, J., & Rothman, A. (2004). Evolution of the biopsychosocial model: prospects and challenges for health psychology. *Health Psychology, 23*(2), 119.

Tabi, M. M., Powell, M., & Hodnicki, D. (2006). Use of traditional healers and modern medicine in Ghana. *International nursing review, 53*(1), 52-58.

Taket, A., Koteccha, M., & Belling, R. (2003). Evaluation of London-wide Ramadan campaign. *London: South Bank University*.

Talukdar, J. (2012). *Thin but not skinny: women negotiating the "never too thin" body ideal in urban India.* Paper presented at the Women's Studies International Forum.

Tauzin, A. (2007). Women of Mauritania: Cathodic images and presentation of the self. *Visual Anthropology, 20*(1), 3-18.

Terragni, L., Garnweidner, L. M., Pettersen, K. S., & Mosdøl, A. (2014). Migration as a Turning Point in Food Habits: The Early Phase of Dietary Acculturation among Women from South Asian, African, and Middle Eastern Countries Living in Norway. *Ecology of food and nutrition, 53*(3), 273-291.

Thomas, C. (2001). Public understanding and its effect on recycling performance in Hampshire and Milton Keynes. *Resources, Conservation and Recycling, 32*(3), 259-274.

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

Tran, D. T., Jorm, L., Johnson, M., Bambrick, H., & Lujic, S. (2015). Effects of acculturation on lifestyle and health status among older Vietnam-born Australians. *Asia Pacific Journal of Public Health*, *27*(2), NP2259-NP2274.

Twumasi, P. (1982). Improvement of health care in Ghana: present perspectives.

Van der Elst, K., De Cock, D., Vecoven, E., Arat, S., Meyfroidt, S., Joly, J., . . . Group, C. S. (2016). Are illness perception and coping style associated with the delay between symptom onset and the first general practitioner consultation in early rheumatoid arthritis management? An exploratory study within the CareRA trial. *Scandinavian Journal of Rheumatology, 45*(3), 171-178.

Van Nes, F., Abma, T., Jonsson, H., & Deeg, D. (2010). Language differences in qualitative research: is meaning lost in translation? *European journal of ageing, 7*(4), 313-316.

Vaughn, L. M., Jacquez, F., & Bakar, R. C. (2009). Cultural health attributions, beliefs, and practices: Effects on healthcare and medical education. *The Open Medical Education Journal, 2*(1).

Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and racial studies, 30*(6), 1024-1054.

Vincenzo, R., Crotty, P., Burns, C., Rozman, M., Ballinger, M., & Webster, K. (2000). Easing the transition: food and nutrition issues of new arrivals. *Health Promotion Journal of Australia: Official Journal of Australian Association of Health Promotion Professionals, 10*(3), 230.

Wade, C., Chao, M., Kronenberg, F., Cushman, L., & Kalmuss, D. (2008). Medical pluralism among American women: results of a national survey. *Journal of Women's Health, 17*(5), 829-840.

Wahab, H., & Assensoh, A. (2008). A historical-cum-political overview of ghana's national health insurance law. *African and Asian Studies, 7*(2-3), 289-306.

Wammes, B., Breedveld, B., Looman, C., & Brug, J. (2005). The impact of a national mass media campaign in The Netherlands on the prevention of weight gain. *Public health nutrition, 8*(08), 1250-1257.

Wardle, J., Haase, A. M., Steptoe, A., Nillapun, M., Jonwutiwes, K., & Bellisie, F. (2004). Gender differences in food choice: the contribution of health beliefs and dieting. *Annals of Behavioral Medicine, 27*(2), 107-116.

Weidner, G., Sieverding, M., & Chesney, M. A. (2016). The role of self-regulation in health and illness. *Psychology, health & medicine, 21*(2), 135-137.

White, A. (2002). What works in young men's health. *Practice Nursing*, *13*(12), 530-531.

White, A., McKee, M., Richardson, N., Visser, R. d., Madsen, S. A., Sousa, B., Makara, P. (2011). Europe's men need their own health strategy. *BMJ (Clinical research ed.), 343*, d7397

White, K., Terry, D. J., Troup, C., Rempel, L. A., Norman, P., Mummery, K., Kenardy, J. (2012). An extended theory of planned behavior intervention for older adults with type 2 diabetes and cardiovascular disease. *Journal of aging and physical activity, 20*(3), 281-299.

WHO. (2002). The world health report 2002: reducing risks, promoting healthy life. Geneva: World Health Organization.

Williams, D. R. (2003). The health of men: structured inequalities and opportunities. *American Journal of Public Health, 93*(5), 724-731.

Witter, S., & Garshong, B. (2009). Something old or something new? Social health insurance in Ghana. *BMC International Health and Human Rights, 9*(1), 1.

Wurm, S., & Benyamini, Y. (2014). Optimism buffers the detrimental effect of negative self-perceptions of ageing on physical and mental health. *Psychology & health, 29*(7), 832-848.

Yebei, V. N. (2000). Unmet needs, beliefs and treatment-seeking for infertility among migrant Ghanaian women in the Netherlands. *Reproductive Health Matters, 8*(16), 134-141.

Young, A. (1983). The relevance of traditional medical cultures to modern primary health care. *Social Science & Medicine, 17*(16), 1205-1211.

Yousaf, O., Grunfeld, E. A., & Hunter, M. S. (2015). A systematic review of the factors associated with delays in medical and psychological help-seeking among men. *Health psychology review, 9*(2), 264-276.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policy-making. *PLoS Med, 8*(5), e1001034.

Zola, I. K. (1973). Pathways to the doctor—from person to patient. *Social Science & Medicine (1967), 7*(9), 677-689.

APPENDIX 1

Data Extraction Sheet – health of migrants

Article code/web link	
Title	
Authors	
Year	
Journal	
Email contact address	
Country of origin	
Aims	
Design Cross-sectional survey Longitudinal data collection Secondary data analysis	
Sample (ethnicity and country of origin migrant group/s)	
Sample size	
Inclusion/exclusion criteria	
Education level	
Time since arrival in host country	
Age range	

Comparison group – describe this	
Stage of cancer	
How was weight measured – was it self-reported – BMI, weight, height, waist circumference	
What was the weight range within the sample	
How acculturation determined - 1. How it is defined – how they actually measured.	
Health behaviours in relation to obesity – how was this defined and how measured	
Main findings How is acculturation associated with weight	
How is acculturation associated with obesity related health behaviours	

Identified limitations	
Applications from the authors	
Notes	

APPENDIX 2

Quality Assessment form

Formatted checklist for assessing the quality of quantitative studies

Criteria		YES (2)	PARTIAL (1)	NO (0)	N/A
1	Question / objective sufficiently described?				
2	Study design evident and appropriate?				
3	Method of subject/comparison group selection *or* source of information/input variables described and appropriate?				
4	Subject (and comparison group, if applicable) characteristics sufficiently described?				
5	Sample size appropriate?				
6	Analytic methods described/justified and appropriate?				
7	Results reported in sufficient detail?				
8	Some estimate of variance is reported for the main results?				
9	Controlled for confounding?				
10	Conclusions supported by the results?				

APPENDIX 3

Consent Form for Participants

Please initial each statement to indicate agreement.

☐ I have read and understood the information sheet for the above study and have been given the opportunity to ask questions.

☐ I understand that my participation is voluntary and that I am free to withdraw from the study up until _____*(the specific date will be entered here on the day of the interview)* without having to give any reason and without me being affected or this having any negative consequences on my circumstances.

☐ I agree to provide information that will be used for research purposes only, and understand that all the information relating to myself obtained as part of the study will be strictly confidential, and that I will not be personally identified in any write-up of the results.

☐ I understand that information will be stored in secured manual and electronic files and is subject to the provisions of the Data Protection Act.

☐ I consent to being audio taped for the purpose of transcription and data collection in this interview.

☐ I wish to participate in this study under the conditions set out here and in the Information Sheet for Participants.

Signed:_____

Printed Name:_____

Date:_____

Thank you very much for agreeing to participate in this study!

APPENDIX 4

Interview Schedule

Interview Guide-Indian & Ghanaian participants

Thank you for agreeing to take part in this interview. I am undertaking this research to gain a better understanding of the health and well-being of Ghanaians and Indians when they move from their country to the UK and to see what influences people's health. Currently there is very little research about the views and experiences of Ghanaians and Indians (either in home country or the UK) and I am keen to redress that gap. I would like to ask you a series of questions about what you think of your health and about health more generally. I would like to record the interview. This is because I can't write everything down as we speak. I will then transcribe the interview so I have a paper copy (which will be anonymous and so no one will be able to recognise who I interviewed) and wipe/delete the sound recording. I use the paper copy to analyse my data and write up my findings. Are you OK with me recording the interview? Do you have any questions before we start?

Ok, let's make a start.

In Ghana/India

I will be asking you questions about your life since arriving in the UK later in the interview but I would like to start by asking you to think back to when you were in Ghana

- Could you describe a typical day to me from when you would wake up to when you retired to bed?
- (If start to list parts of their day interrupt and probe to get them to expand out).

- Do you feel that you were generally healthy? Explore responses (why/why not; what did to maintain health; how would have changed to improve health)
- Did you parents teach you about how to be healthy or lead a healthy life style.(foods, drinks, herbs, physical activity, behaviour)?

- Are there other people who have influenced the way you think about your health (who and in what ways)?

- In what ways do you think you could have improved your overall health?

- Habits or behaviours that they might not consider to be very healthy....

- Can you tell me about the foods you would commonly eat and your eating habits (family/communal meals/who would prepare foods/where foods purchased)

- Can you tell me about the sort of foods you would eat on special occasions(description of occasions/cultural/religion/family, types of food, how prepared, who responsible)

- In what ways did you keep physically active? Do you feel that you undertook the right amount of physical activity?

- What support/encouragement did you have to help maintain good health?

In the UK

I would now like to focus on your health since arriving in the UK.

- Can you start by telling me why you came to the UK (reasons for migration)?

- What is like to be a Ghanaian or Indian in the UK?

- Can you start by describing a typical day since you moved to the UK to me - from when you wake up to when you retire to bed?

- (If start to list parts of their day interrupt and probe to get them to expand out).

- It what ways is their day different/similar to Ghana?

- What are the main changes that they notice?

- How do they feel about these?

- What do you feel are the real differences between you ways of life back at home and in the UK?

o Do you feel that your health has changed since moving to the UK? Explore positive and negative aspects.

o What are the main things that impact on their health?

o Are there any barriers or things that make it harder to be healthy in the UK?

o Are there any things that make it easier to be healthy in the UK?

o Have there been any changes to weight?

• What do you do to keep healthy or avoid being ill in everyday life?

• I would now like you to think about the foods you eat since arriving in the UK?

o What kinds of foods did you consume when you first got to the UK?

o (Probe for types, how many meals in a day, reasons)

o Were there some kinds of food you wished to eat but could not?

o (Probe for reasons for not consuming, barriers: individual, societal influence, cost, law)

• Has the amount or sort of physical activity changed since moving to the UK?

o Refer back to their description of their day

o (Probe for reasons, any barriers: ill health, cost, laws etc)

o Explore contextual barriers – facilities, weather, transport

• What do you think are the main differences between Ghana/India and the UK that have influenced/impacted on your health?(probe: physical environment, support services, socio cultural factors)

• What would you say are the main differences between Ghanaian/Indian and western medicine?
(explore: preference, trust)

• Do you feel adequate health services are available to you?

• Are GPs, nurses and other health professional's sensitive to you needs as a Ghanaian/Indian? (explore: examples or situations)

• Where do you get health information from and why?

• Do you think that there are differences in attitudes to healthy and what is healthy between Ghana/India and the UK?(probe: physical environment, support services, socio cultural

factors)

- Do you think your views or behaviour about health has changed since arriving in the UK?

- Do you have any plans to change your approach keeping healthy over the coming months? – explore these.....

> Thank you for taking part in the interview and for sparing your time.
>
> Do you have any questions?

Participant details

1. Gender: Male □   Female □

2. Age:_____

3. Marital status

    Single □   Married/with a partner □   Divorced/Separated □   Widowed □

4. If married with partner is your partner in: UK □   Ghana/India □   Other-
    _____

5. Number of children: Under 18……………   Over 18………………..

6. Who do you live with in the UK?

7. Religion: (Ghana/India)_____   Religion:
    (now)_____

8. Occupation (Ghana/India) _____   Occupation (now) _____

9. Are you currently working?

            Full time □Part time □   Retired □   Homemaker □   Student □ Other
    _____

10. Income (Ghana/India)_____   Income (now)_____

11. Highest education level

No academic qualification □   GCSE/O-level/Eguivalent □

A-level/Equivalent   □   Degree/Higher level   □

Other………………………

12. Reasons for coming to the UK

13. When did you first arrive in the UK? _____

14. Country of birth_____ 14. Nationality

      _____

15. Would you describe yourself as

Black Carribean □   Black Other□   Indian□   Bangladeshi□

Black African□   White   □   Chinese□   Black

Other□   Pakistani□   Other………….

Appendix 5

Interview Schedule

Interview Guide-British

Thank you for agreeing to take part in this interview. I am undertaking this research to gain a better understanding of people's health and well-being of migrants. Currently there is very little research about the views and experiences of migrants in comparison to the home population (people born and grew up in the UK) and I am keen to redress that gap. I would like to ask you a series of questions about what you think of your health and about health more generally. I would like to record the interview. This is because I can't write everything down as we speak. I will then transcribe the interview so I have a paper copy (which will be anonymous and so no one will be able to recognise who I interviewed) and wipe/delete the sound recording. I use the paper copy to analyse my data and write up my findings. Are you OK with me recording the interview? Do you have any questions before we start?

Ok, let's make a start.

- Can you start by describing a typical day in your life to me - from when you wake up to when you retire to bed?
- (If start to list parts of their day interrupt and probe to get them to expand out).
- What are the main changes that they notice?
- How do they feel about these?
- Do you feel that you are generally healthy? Explore responses (why/why not; what you do maintain health; how would have changed to improve health, has your health changed over the last 5 to 10 years (why)).
- Are there other people who have influenced the way you think about your health (who and in what ways)?

- Did you parents teach you about how to be healthy or lead a healthy life style.(foods, drinks, herbs, physical activity, behaviour)

- In what ways do you think you can improve your overall health (habits or behaviours that

they might not consider to be very healthy)?

- What do you do to keep healthy or avoid being ill in everyday life?

- I would now like you to think about the foods you eat?
- What kinds of foods do you consume?

  (Probe for types, how many meals in a day, reasons)
- Are there some kinds of food you wished to eat but can not?

  (Probe for reasons for not consuming, barriers: individual, societal influence, cost, law)
- Has your diet changed over the last 5 to 10 years (why)

  (probe for reasons cost, availability, illhealth)

- How much physical activity do you involve yourself in?
- (Probe for reasons, any barriers: ill health, cost, laws etc)
- Explore contextual barriers – facilities, weather, transport
- Do you feel adequate health services are available to you?
- Where do you get health information from and why?
- Do you have any plans to change your approach keeping healthy over the coming months? – explore these.....

> Thank you for taking part in the interview and for sparing your time.
>
> Do you have any questions?

Participant details

16. Gender: Male □   Female □

17. Age:_____

18. Marital status

Single □   Married/with a partner □   Divorced/Separated □   Widowed □

19. Number of children: Under 18……………   Over 18………………..

20. Who do you live with?

21. Religion:_____

22. Occupation _____

23. Are you currently working?

Full time □Part time □   Retired □   Homemaker □   Student □   Other
_____

24. Income _____

25. Highest education level

No academic qualification □   GCSE/O-level/Eguivalent □

A-level/Equivalent   □   Degree/Higher level   □

Other………………………

26. Country of birth_____

27. City of birth_____

28. Would you describe yourself as

Black Carribean □   Black Other□   Indian□   Bangladeshi□

Black African□   White   □   Chinese□   Black

Other□   Pakistani□   Other………….

APPENDIX 6

Information Sheet for Ghanaian and Indian Participants (dataset one)

Study Title: Health acculturation and migration. A comparison of Ghanaians and Indians living in Birmingham.

Introduction:
You are being invited to take part in the present study. Please take the time to read through the following information. Ask the relevant person who provided you with the information sheet if you have any questions or would like more information.

What is the purpose of the study?
The purpose of the present study is to hear about your experiences as migrants relating to your health behaviours, specifically about diet and physical activity.
 This discussion will be about 1 hour in duration and will be audio taped to ensure clarity of data collection and transcription.

Why have I been chosen?
You have been chosen to participate in this study because you have been identified as a potential respondent for the study.

Do I have to take part? /What happens if I take part?
It is entirely up to you whether you decide to take part in the present study or not. If you decide to take part, you will be given this information sheet to keep and a meeting in the form of an interview will be arranged for you. Withdrawing from the study will not affect you or have any negative consequences on your circumstances. All respondents who participate would be given a 20 pounds shopping voucher.

What happens to my information?
All information that is obtained from the interview will uploaded onto a password protected computer for use of transcribing. Only the transcriber and research team will have access to these materials. This information will then be entered into a computer database, where your information will be assigned a number. The information in the database, as well as all study material (i.e., audio or video files), will be identified by numbers, and can therefore not be traced back to you or anyone else. Once the audio and video files are transcribed all digital copied and original files will be deleted. Your name will only appear on your consent form, and the researcher will be the only person who has access to a list linking your name with your number. All study material, including audio records of interviews, will be kept in a locked filing cabinet at the University of Birmingham.

Will my taking part in this study be kept confidential?
All information that is obtained during the course of the study will be kept strictly confidential. No identifiable information will be included in any publication using the data of this study.

What will happen to the results of the study?
The results of the study will be analysed by the research team to identify the health behaviours of migrants and challenges they go through to become healthy. The results may be presented at a conference or published in an academic journal and may be used to inform future research. Please note that no identifiable information will be released in any write-up of the results. If you choose to participate in the study and would like to receive a copy of the results or final paper you may state this at the start of the interview and a copy of the results will be sent to you via the contact information you provide.

Please contact Lailah Alidu with any questions you may have.

If you are interested in participating in this study and have not yet indicated your day preference please contact Lailah Alidu please indicate preferred days of the week and times of the day (morning/afternoon) which are most convenient for you to participate, using the options below:

- Monday
- Tuesday
- Wednesday
- Saturday

- Morning
- Afternoon

Lailah Alidu
PhD Researcher
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT

Dr. Beth Grunfeld
Senior Lecturer and Research Supervisor
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT

APPENDIX 7

Information Sheet for British Participants (dataset one)

Study Title: Health acculturation and migration. A comparison of Ghanaians, Indians and white British living in Birmingham.

Introduction:
You are being invited to take part in the present study. Please take the time to read through the following information. Ask the relevant person who provided you with the information sheet if you have any questions or would like more information.

What is the purpose of the study?
The purpose of the present study is to hear about your experiences relating to your health behaviours, specifically about diet and physical activity.
This discussion will be about 1 hour in duration and will be audio taped to ensure clarity of data collection and transcription.

Why have I been chosen?
You have been chosen to participate in this study because you have been identified as a potential respondent for the study.

Do I have to take part? /What happens if I take part?
It is entirely up to you whether you decide to take part in the present study or not. If you decide to take part, you will be given this information sheet to keep and a meeting in the form of an interview will be arranged for you. Withdrawing from the study will not affect you or have any negative consequences on your circumstances. All respondents who participate would be given a 10 pounds shopping voucher.

What happens to my information?
All information that is obtained from the interview will uploaded onto a password protected computer for use of transcribing. Only the transcriber and research team will have access to these materials. This information will then be entered into a computer database, where your information will be assigned a number. The information in the database, as well as all study material (i.e., audio or video files), will be identified by numbers, and can therefore not be traced back to you or anyone else. Once the audio and video files are transcribed all digital copied and original files will be deleted. Your name will only appear on your consent form, and the researcher will be the only person who has access to a list linking your name with your number. All study material, including audio records of interviews, will be kept in a locked filing cabinet at the University of Birmingham.

Will my taking part in this study be kept confidential?
All information that is obtained during the course of the study will be kept strictly confidential. No identifiable information will be included in any publication using the data of this study.

What will happen to the results of the study?
The results of the study will be analysed by the research team to identify the health behaviours and challenges people go through to become healthy. The results may be presented at a conference or published in an academic journal and may be used to inform future research. Please note that no identifiable information will be released in any write-up of the results. If you choose to participate in the study and would like to receive a copy of the results or final paper you may state this at the start of the interview and a copy of the results will be sent to you via the contact information you provide.

Please contact Lailah Alidu with any questions you may have.

If you are interested in participating in this study and have not yet indicated your day preference please contact Lailah Alidu please indicate preferred days of the week and times of the day (morning/afternoon) which are most convenient for you to participate, using the options below:

- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Saturday

- ☐ Morning
- ☐ Afternoon

Lailah Alidu
PhD Researcher
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT

Dr. Beth Grunfeld
Senior Lecturer and Research Supervisor
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT

APPENDIX 8
Poster for Recruitment (dataset one)

APPENDIX 9

Example of coding process

Codes	Thematic Organisation	Analytical process
Good mental health Absence of disease No need in using healthcare services	Attributes of health (male perspective)	These codes were noted when male participants described their health
Eating habits Physical exercise	Attributes of healthy (female perspective)	Participants described their health relating to these areas, that is why I grouped then under attributes of health
Cost Familiarity Availability Moral Necessity	Food	Participants described aspects of their life's that influenced their engagement in healthy behaviours
Weather Accessibility/traffic Cost Technology	Exercise/physical activity	Participants recounted aspects of the UK environment that has positive influence on their health
Societal expectation Requirement for marriage Comfortability	Body image	A description of their bodies, expectations and goals were described by mostly female participants
Knowledge on Food, Exercise, Other healthy habits (intrinsic or extrinsic) Social influences	Family and peers	Participants described direct influences on their health

APPENDIX 10

Screenshot of Matrix in Excel

APPENDIX 11

Consent Form for Participants (dataset two)

UNIVERSITY OF
BIRMINGHAM

Illness perception and help seeking amongst Ghanaian men. A study of men in Ghana and migrants from Ghana in the UK

Please initial each statement to indicate agreement.

☐ I have read and understood the information sheet for the above study and have been given the opportunity to ask questions.

☐ I understand that my participation is voluntary and that I am free to withdraw from the study up until _____*(the specific date will be entered here on the day of the interview)* without having to give any reason and without me being affected or this having any negative consequences on my circumstances.

☐ I agree to provide information that will be used for research purposes only, and understand that all the information relating to myself obtained as part of the study will be strictly confidential, and that I will not be personally identified in any write-up of the results.

☐ I understand that information will be stored in secured manual and electronic files and is subject to the provisions of the Data Protection Act.

☐ I consent to being audio taped for the purpose of transcription and data collection in this interview.

☐ I wish to participate in this study under the conditions set out here and in the Information Sheet for Participants.

Signed:_____

Printed Name:_____

Date:_____

Thank you very much for agreeing to participate in this study!

APPENDIX 12

Interview Schedule for dataset two

Interview Guide for Ghanaian in Birmingham/London

Thank you for agreeing to take part in this interview. I am undertaking this research to gain a better understanding of what people think about illness and well-being. I would like to ask you a series of questions about what you think of your own health and about what it means to be healthy more generally. I would like to record the interview. This is because I can't write everything down as we speak. I will then transcribe the interview so I have a paper copy (which will be anonymous and so no one will be able to recognise who I interviewed) and wipe/delete the sound recording. I use the paper copy to analyse my data and write up my findings. Are you OK with me recording the interview? Do you have any questions before we start?

Ok, let's make a start.

- Do you generally consider yourself to be a healthy person [explore why]
- What do you do when you get ill?
        (Probe for headaches, stomachs, malaria, and fever)
- Could you talk about a time you fell ill?
- How did you know/how will you know when you are ill?
        (Probe for emotions when noticed, and what was done and when)
- Did you have any symptoms?
- What was the first thing you did?
- Did you talk to anyone about it?
- Have you ever sought help for any ill health?
(herbal, GP, spiritual, others)
- What influenced your choice of help seeking?
- Did you initiate the process or not?
        (How easy/difficult was it, what would have made it easier)
- Explore respondent's view of what ill health was about?
- What kind of ill health would you seek help for / and where would you seek the help (Why/why not) (Probe for different kinds of illnesses)

- Does being a man affect your help seeking choices?
        (Probe for barriers/facilitators)
- Do you think women approach help seeking differently?
- Are there differences in help seeking behaviours in youthful age as compared to your older age?
- Has migration changed the way you think about your health/ health in general?
(probe for structural, environmental, others)

Participant details in the UK

29.   Gender: Male □   Female □

30.   Age:_____

31.   Marital status

Single □   Married/with a partner □   Divorced/Separated □   Widowed □

32.   If married with partner is your partner in: UK □   Ghana □   Other-
_____

33.   Who do you live with in the UK?

34.   Religion: (Ghana)_____   Religion: (now)_____

35.   Occupation (Ghana) _____   Occupation (now) _____

36.   Are you currently working?

Full time □Part time □   Retired □   Homemaker □   Student □   Other
_____

37.   Income (Ghana)_____   Income (now)_____

38.   Highest education level _____

39.   Reasons for coming to the UK

40.   When did you first arrive in the UK?/How long have you stayed in Ghana?

_____

41.　　Country of birth_____　　14. Nationality
_____

Thank you for taking part in the interview and for sparing your time.
Do you have any questions?

APPENDIX 13

Interview Guide for Ghanaians

Thank you for agreeing to take part in this interview. I am undertaking this research to gain a better understanding of what people think about illness and well-being. I would like to ask you a series of questions about what you think of your own health and about what it means to be healthy more generally. I would like to record the interview. This is because I can't write everything down as we speak. I will then transcribe the interview so I have a paper copy (which will be anonymous and so no one will be able to recognise who I interviewed) and wipe/delete the sound recording. I use the paper copy to analyse my data and write up my findings. Are you OK with me recording the interview? Do you have any questions before we start?

Ok, let's make a start.

- Do you generally consider yourself to be a healthy person [explore why]
- What do you do when you get ill?
          (Probe for headaches, stomachs, malaria, and fever)
- Could you talk about a time you fell ill?
- How did you know/how will you know when you are ill?
          (Probe for emotions when noticed, and what was done and when)
- Did you have any symptoms?
- What was the first thing you did?
- Did you talk to anyone about it?
- Have you ever sought help for any ill health?
  (herbal, GP, spiritual, others)
- What influenced your choice of help seeking?
- Did you initiate the process or not?
          (How easy/difficult was it, what would have made it easier)
- Explore respondent's view of what ill health was about?
- What kind of ill health would you seek help for / and where would you seek the help (Why/why not) (Probe for different kinds of illnesses)
- Does being a man affect your help seeking choices?
          (Probe for cultural/ age and religious factors)
- What makes it difficult to seek help/cope when ill as a man?
  (Probe for cultural/ age)
- Would you have done anything different if you were a woman?
- Are there differences in help seeking behaviours in youthful age as compared to your older age?

Participant details in Ghana

42.   Age:_____

43.   Marital status

Single □   Married/with a partner □   Divorced/Separated □   Widowed □

44.   Who do you live with?

45.   Religion:
46.   Occupation :

47.   Are you currently working?

Full time □Part time □   Retired □   Homemaker □   Student □   Other

_____

48.   Income :

49.   Highest education level _____

50.   Country of birth_____   14. Nationality

_____

Thank you for taking part in the interview and for sparing your time. Do you have any questions?

Appendix 14

UNIVERSITY OF BIRMINGHAM

Information Sheet for Participants in UK

Study Title: Illness perception and help seeking amongst Ghanaian men. A study of men in Ghana and migrants from Ghana in the UK

Introduction:
You are being invited to take part in the present study. Please take the time to read through the following information. Ask the relevant person who provided you with the information sheet if you have any questions or would like more information.

What is the purpose of the study?
The purpose of the present study is to hear about your experiences as migrants relating to your health. This discussion will be about 1 hour in duration and will be audio taped to ensure clarity of data collection and transcription.

Why have I been chosen?
You have been chosen to participate in this study because you have been identified as a potential respondent for the study.

Do I have to take part? /What happens if I take part?
It is entirely up to you whether you decide to take part in the present study or not. If you decide to take part, you will be given this information sheet to keep asked to undertake an interview which will last for about an hour. In that interview I would ask you about what you think about illness and well-being, a series of questions about what you think of your own health and about what it means to be healthy more generally. Withdrawing from the study will not affect you or have any negative consequences on your circumstances. All respondents who participate would be a ten pound voucher.

What happens to my information?
All information that is obtained from the interview will be uploaded onto a password protected computer for use of transcribing. Only the transcriber and research team will have access to these materials. This information will then be entered into a computer database, where your information will be assigned a number. The information in the database, as well as all study material (i.e., audio or video files), will be identified by numbers, and can therefore not be traced back to you or anyone else. Once the audio and video files are transcribed all digital copied and original files will be deleted. Your name will only appear on your consent form, and the researcher will be the only person who has access to a list linking your name with your number. All study material, including audio records of interviews, will be kept in a locked filing cabinet at the University of Birmingham.

Will my taking part in this study be kept confidential?
All information that is obtained during the course of the study will be kept strictly confidential. No identifiable information will be included in any publication using the data of this study.

What will happen to the results of the study?
The results of the study will be analysed by the research team to identify the illness perception and helps seeking behaviours of men and how migrating to the UK influences it. . The results may be presented at a conference or published in an academic journal and may be used to inform future research regarding help seeking and illness perception of Ghanaian men. Please note that no identifiable information will be

released in any write-up of the results. If you choose to participate in the study and would like to receive a copy of the results or final paper you may state this at the start of the interview and a copy of the results will be sent to you via the contact information you provide.

Please contact Lailah Alidu with any questions you may have.

If you are interested in participating in this study and have not yet indicated your day preference please contact Lailah Alidu please indicate preferred days of the week and times of the day (morning/afternoon) which are most convenient for you to participate, using the options below:

- Monday
- Tuesday
- Wednesday
- Saturday

- Morning
- Afternoon

LailahAlidu
PhD Researcher
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT

Prof Beth Grunfeld
Centre for Technology Enabled Health Research
Faculty of Health & Life Sciences
Coventry University
Coventry CV1 5FB

Appendix 15

UNIVERSITY OF BIRMINGHAM

Information Sheet for Participants in Ghana

Study Title: Illness perception and help seeking amongst Ghanaian men. A study of men in Ghana and migrants from Ghana in the UK

Introduction:
You are being invited to take part in the present study. Please take the time to read through the following information. Ask the relevant person who provided you with the information sheet if you have any questions or would like more information.

What is the purpose of the study?
The purpose of the present study is to hear about your experiences relating to your health.
This discussion will be about 1 hour in duration and will be audio taped to ensure clarity of data collection and transcription.

Why have I been chosen?
You have been chosen to participate in this study because you have been identified as a potential respondent for the study.

Do I have to take part? /What happens if I take part?
It is entirely up to you whether you decide to take part in the present study or not. If you decide to take part, you will be given this information sheet to keep asked to undertake an interview which will last for about an hour. In that interview I would ask you about what you think about illness and well-being, a series of questions about what you think of your own health and about what it means to be healthy more generally. Withdrawing from the study will not affect you or have any negative consequences on your circumstances. All respondents who participate would be given a hamper of assorted items worth £10.

What happens to my information?
All information that is obtained from the interview will be uploaded onto a password protected computer for use of transcribing. Only the transcriber and research team will have access to these materials. This information will then be entered into a computer database, where your information will be assigned a number. The information in the database, as well as all study material (i.e., audio or video files), will be identified by numbers, and can therefore not be traced back to you or anyone else. Once the audio and video files are transcribed all digital copied and original files will be deleted. Your name will only appear on your consent form, and the researcher will be the only person who has access to a list linking your name with your number. All study material, including audio records of interviews, will be kept in a locked filing cabinet at the University of Birmingham.

Will my taking part in this study be kept confidential?
All information that is obtained during the course of the study will be kept strictly confidential. No identifiable information will be included in any publication using the data of this study.

What will happen to the results of the study?
The results of the study will be analysed by the research team to identify the illness perception and help seeking of men in Ghana. The results may be presented at a conference or published in an academic journal and may be used to inform future research regarding help seeking and illness perception of Ghanaian men. Please note that no identifiable information will be released in any write-up of the results. If you choose to participate in the study and would like to receive a copy of the results or final

paper you may state this at the start of the interview and a copy of the results will be sent to you via the contact information you provide.

Please contact Lailah Alidu with any questions you may have.

If you are interested in participating in this study and have not yet indicated your day preference please contact Lailah Alidu please indicate preferred days of the week and times of the day (morning/afternoon) which are most convenient for you to participate, using the options below:

- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Saturday

- ☐ Morning
- ☐ Afternoon

LailahAlidu
PhD Researcher
School of Psychology
University of Birmingham
Edgbaston, Birmingham
B15 2TT
Tel 0246146504

Prof Beth Grunfeld
Centre for Technology Enabled Health Research
Faculty of Health & Life Sciences
Coventry University
Coventry CV1 5FB

Appendix 16: Stratification table for dataset two

1	2	3	4	5	6	7	8	9	10	11	12	13
ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana	ghana
married	married	married	married	married	married	married	married	married	married	married	married	not married
50-65	50-65	50-65	50-65	50-65	50-65	65+	65+	65+	65+	65+	65+	50-65
tertiary	tertiary	middle	middle	low/none	low/none	tertiary	tertiary	middle	middle	low/none	low/none	tertiary
working	not working	working	not working	working	not working	working	not working	working	not working	working	not working	working

1	2	3	4	5	6	7	8	9	10	11	12	13
uk	uk	uk	uk	uk	uk	uk	uk	uk	uk	uk	uk	uk
married	married	married	married	married	married	married	married	married	married	married	married	not married
50-65	50-65	50-65	50-65	50-65	50-65	65+	65+	65+	65+	65+	65+	50-65
tertiary	tertiary	middle	middle	low/none	low/none	tertiary	tertiary	middle	middle	low/none	low/none	tertiary
working	not working	working	not working	working	not working	working	not working	working	not working	working	not working	working

Appendix 17

UNIVERSITY OF BIRMINGHAM APPLICATION FOR ETHICAL REVIEW	*OFFICE USE ONLY:* Application No: Date Received:

1. TITLE OF PROJECT

Health acculturation and migration.A comparison of Ghanaians and Indians living in Birmingham.

2. THIS PROJECT IS:

University of Birmingham Staff Research project ☐

University of Birmingham Postgraduate Research (PGR) Student project ☒

Other ☐ (Please specify):

3. INVESTIGATORS

a) PLEASE GIVE DETAILS OF THE PRINCIPAL INVESTIGATORS OR SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name: Title / first name / family name	Dr. Beth Grunfeld
Highest qualification & position held:	PhD, Senior Lecturer in Psychology
School/Department	School of Psychology
Telephone:	
Email address:	

Name: Title / first name / family name	
Highest qualification & position held:	
School/Department	
Telephone:	
Email address:	

b) PLEASE GIVE DETAILS OF ANY CO-INVESTIGATORS OR CO-SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name: Title / first name / family name	
Highest qualification & position held:	
School/Department	
Telephone:	
Email address:	

c) In the case of PGR student projects, please give details of the student

Name of	LailahAlidu	Student No:	
Course of study:	PhD Psychology	Email	
Principal	Dr. Beth Grunfeld		

Name of student:		Student No:	
Course of study:		Email address:	
Principal			

4. ESTIMATED START OF   Date: | 01 Sept., 2013 | **PROJECT**

ESTIMATED END OF   Date: | 01 Sept., 2014 | **PROJECT**

FUNDING

List the funding sources (including internal sources) and give the status of each source.

Funding Body	*Approved/Pending /To be submitted*
Ghana Education Trust fund(PhD Studentship)	Awarded

If applicable, please identify date within which the funding body requires acceptance of award:

Date: | N/A |

If the funding body requires ethical review of the research proposal at application for funding please provide date of deadline for funding application:

Date: | N/A |

5. SUMMARY OF PROJECT

Describe the purpose, background rationale for the proposed project, as well as the hypotheses/research questions to be examined and expected outcomes.This description should be in everyday language that is free from jargon. Please explain any technical terms or discipline-specific phrases.

Purpose
The purpose of this study is to explore health beliefs and health behaviours (diet and physical activity) among Ghanaian and Indian migrants and how these change following arrival in the UK.

Background rationale
We live in an increasingly diverse society. Ethnic and racial diversity is growing at a rapid pace and what would once have been termed "minority" ethnic and racial groups now comprise a substantial proportion of the European population. Of particular importance is how this diversity can influence how, and when, individuals engage in health behaviours and how these change over time following migration to a new country. The physical environment such as climate, quality of air and water, as well as the socio cultural factors such as religion, norms, and ethnicity affects an individual's health and behaviour .Availability of a healthy working and home environment and the existence of public and private support systems has also been seen to influence the health of people (Macintyre, Ellaway & Cummins, 2002). We have yet to develop a clear picture of not only the differences between groups (e.g. categorised by ethnicity, age, gender) but also the similarities. Various studies have attributed acculturation to poor health outcomes of minority populations especially in the United States of America and the United Kingdom, (both countries have increasingly and diverse number of migrant population). The study aims to investigate the changes in migrants' diet and physical activity behaviour and reasons for these changes. This research will focus specifically on the role of acculturation and health beliefs in relation to diet and physical activity. It will focus on three populations: White British participants (the "home" population), Indian participants (one of the major migrant groups in Birmingham) and Ghanaian migrants (one of the smallest migrant groups in Birmingham). Indians in Birmingham form 5.8% of the total Birmingham population whilst black Africans of which Ghanaians are part formed 2.0%, Birmingham City Council (2011).

Research Questions

What are migrants' beliefs about health behaviours (such as diet and physical activity)?
Do these health behaviours differ according to country of origin?
Do migrant's health beliefs and behaviours change overtime?

Methods Summary
Adapted health history interviews would be undertaken with Ghanaians, Indians and White British participants in Birmingham examining health beliefs and behaviours and any changes in these over time. The Ghanaian and Indian migrants who have been in the UK for not less than a year. The sample will comprise 15 individuals from each group (45 in total).

Identification of Participants
Respondents would be recruited from community groups, churches, mosques and clubs

Recruitment process
Participants would be contacted directly by the researcher. The researcher would frequently go to these community groups, churches and clubs to approach people who would be interested in the study. Interested participants would then be contacted later to book an appointment for an interview. In addition a poster would be used to support recruitment (see appendix), potential participants would then be able to contact the researcher directly.

6. CONDUCT OF PROJECT

Please give a description of the research methodology that will be used

> Interviews would be conducted in either the participant's place of work, at the University of Birmingham, via phone or participants' home. The participant will be given the option of mode of interview based on convenience.
>
> All interviews will be carried out by the PhD Researcher.

7. DOES THE PROJECT INVOLVE PARTICIPATION OF PEOPLE OTHER THAN THE RESEARCHERS AND SUPERVISORS?

Yes ☒ No ☐

Note: "Participation" includes both active participation (such as when participants take part in an interview) and cases where participants take part in the study without their knowledge and consent at the time (for example, in crowd behaviour research).

If you have answered NO please go to Section 18 . If you have answered YES to this question please complete all the following sections.

8. PARTICIPANTS AS THE SUBJECTS OF THE RESEARCH
Describe the number of participants and important characteristics (such as age, gender, location, affiliation, level of fitness, intellectual ability etc.). Specify any inclusion/exclusion criteria to be used.

> Total sample size would be 45, this would include 15 Indians and 15 Ghanaians who have stayed in the UK for more than 12 months, the remaining 15 would be British(home sample). All participants would be 18 years and over.

9. RECRUITMENT
Please state clearly how the participants will be identified, approached and recruited. Include any relationship between the investigator(s) and participant(s) (e.g. instructor-student).

Note: Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

> Respondents would be contacted through community groups. Members of these community groups would be approached directly by the researcher and the purpose of the research would be explained to them, interested members would then be contacted for the interview. In addition a poster would be displayed on the notice boards of community centres to inform potential participants of the study and inviting them to contact the researcher for further information.

10. CONSENT
a) Describe the process that the investigator(s) will be using to obtain valid consent. If consent is not to be obtained explain why**.** If the participants are minors or for other reasons are not competent to consent, describe the proposed alternate source of consent, including any permission / information letter to be provided to the person(s) providing the consent.

An information sheet will be handed out to participants prior to the interview. The researcher will reaffirm that the study is to understand the various changes migrants go through concerning their health. The PhD researcher will go through anything on the sheet with the participant that they want clarification on and will provide an opportunity for questions before inviting the participant and to sign the consent sheet.

Note: Attach a copy of the Participant Information Sheet (if applicable), the Consent Form (if applicable), the content of any telephone script (if applicable) and any other material that will be used in the consent process.

b) Will the participants be deceived in any way about the purpose of the study? **Yes** ☐ **No** ☒

If yes, please describe the nature and extent of the deception involved. Include how and when the deception will be revealed, and who will administer this feedback.

N/A

11. PARTICIPANT FEEDBACK

Explain what feedback/ information will be provided to the participants after participation in the research. (For example, a more complete description of the purpose of the research, or access to the results of the research).

Participants who are interested in receiving a copy of the research results summary would be contacted and given a copy.

12. PARTICIPANT WITHDRAWAL

a) Describe how the participants will be informed of their right to withdraw from the project.

This will be done at the consent signing. See consent form and information sheet for detailed description

b) Explain any consequences for the participant of withdrawing from the study and indicate what will be done with the participant's data if they withdraw.

The participant will be able to withdraw from the interview with no consequences.
They can leave at any time up to and during the interview and request their data to be withdrawn from the study at any point up until one month after interview. If a participant leaves the interview part way through, their data will be deleted straight away.

13. COMPENSATION

Will participants receive compensation for participation?

i) Financial   **Yes** ☐ **No** ☐

ii) Non-financial   **Yes** ☒ **No** ☐

If **Yes** to **either** i) or ii) above, please provide details.

Participants would be given a £10 shopping voucher for participating

If participants choose to withdraw, how will you deal with compensation?

If participants choose to withdraw before the end of the interview, no voucher would be given.

14. CONFIDENTIALITY

a) Will all participants be anonymous? **Yes** ☐ **No** ☒

b) Will all data be treated as confidential? **Yes** ☒ **No** ☐

Note: Participants' identity/data will be confidential if an assigned ID code or number is used, but it will not be anonymous. Anonymous data cannot be traced back to an individual participant.

Describe the procedures to be used to ensure anonymity of participants and/or confidentiality of data both during the conduct of the research and in the release of its findings.

Personal/ or work contact information will be requested and stored only if participants express an interest in being contacted again with a summary of the research results. This information will be stored in a locked filing cabinet in the University of Birmingham PhD office 309A. It will not be linked to participants' research data (i.e. audio recordings or interview transcripts) in any way.

Direct quotations will be used in reporting results. This material will be anonymised (i.e. references to people, places, organisations and other potentially identifying material) will be systematically altered in the transcripts prior to data analysis. Participants will be referred to by pseudonyms.

Digital audio recordings will be made of 1:1 interviews. The researcher will be the only person with access to these materials. They will be stored on a password protected computer. All audio recordings will be deleted (copies and originals) upon completion of the transcription. Data analysis will be based upon the anonymised transcripts.

If participant anonymity or confidentiality is not appropriate to this research project, explain, providing details of how all participants will be advised of the fact that data will not be anonymous or confidential.

N/A

15. STORAGE, ACCESS AND DISPOSAL OF DATA

Describe what research data will be stored, where, for what period of time, the measures that will be put in place to ensure security of the data, who will have access to the data, and the method and timing of disposal of the data.

Digital recordings will normally be transferred from the digital recording devices to a password-protected computer within one working day of any recording being made, and then deleted from the device.

Digital recordings will then be stored on a password protected computer. They will be relayed to the transcribers via a password-protected, secure data transfer process. Transcription would be done by the researcher. Data will be stored securely at the University according to the University of Birmingham's Code of Practice For Research for 10 years.

Data analysis will be based upon the anonymised transcripts, not the raw digital recordings. Full transcripts will not be accessible to anyone outside of the research team.

16. OTHER APPROVALS REQUIRED? e.g. Criminal Records Bureau (CRB) checks

☐ YES ☐ NO ☒ NOT APPLICABLE

If yes, please specify.

N/A

17. SIGNIFICANCE/BENEFITS

Outline the potential significance and/or benefits of the research

There is no direct personal benefit to participants.

RISKS

a) Outline any potential risks to **INDIVIDUALS**, including <u>research staff, research participants, other individuals not involved in the research</u> and the measures that will be taken to <u>minimise</u> any risks and the procedures to be adopted in the event of mishap

Research Staff: The University's guidelines for lone-working and community visits will be followed and the supervisor will be contacted by the PhD researcher before and after completing each interview .
Research Participants: There is very low risk for participants in this study. Participants will be required to give up one hour (during the week) to meet with the PhD researcher. However, burden will be minimised by choosing an interview location and time that is convenient for the participant and which minimises any effects on activities and daily schedules.
Whilst the risk of distress to participants is unlikely, there may be some discomfort in sharing beliefs. The researcher who is conducting the interviews will be mindful to check for any signs of distress and will remind participant of confidentiality to share opinions in a safe space. If distress occurs researcher will also allow participants a break from the interview. Furthermore, the participant will be reminded of their option to withdraw at any time or to refuse to answer a question. Following the interviews, any other reactions or feelings of distress would be discussed with the supervisor.

b) Outline any potential risks to **THE ENVIRONMENT and/or SOCIETY** and the measures that will be taken to <u>minimise</u> any risks and the procedures to be adopted in the event of mishap.

N/A

18. ARE THERE ANY OTHER ETHICAL ISSUES RAISED BY THE RESEARCH?

Yes ☐ No ☒

If yes, please specify

215

N/A

CHECKLIST

Please mark if the study involves any of the following:

- Vulnerable groups, such as children and young people aged under 18 years, those with learning disability, or cognitive impairments ☐

- Research that induces or results in or causes anxiety, stress, pain or physical discomfort, or poses a risk of harm to participants (which is more than is expected from everyday life) ☐

- Risk to the personal safety of the researcher ☐

- Deception or research that is conducted without full and informed consent of the participants at time study is carried out ☐

- Administration of a chemical agent or vaccines or other substances (including vitamins or food substances) to human participants. ☐

- Production and/or use of genetically modified plants or microbes ☐

- Results that may have an adverse impact on the environment or food safety ☐

- Results that may be used to develop chemical or biological weapons ☐

Please check that the following documents are attached to your application.

	ATTACHED	NOT APPLICABLE
Recruitment advertisement (cover-letter)	☒	☐
Participant information sheet	☒	☐
Consent form	☒	☐
Questionnaire	☐	☒
Interview Schedule	☒	☐
Poster	☒	

DECLARATION BY APPLICANTS

I submit this application on the basis that the information it contains is confidential and will be used by the
University of Birmingham for the purposes of ethical review and monitoring of the research project described
herein, and to satisfy reporting requirements to regulatory bodies. The information will not be used for any
other purpose without my prior consent.

I declare that:
- The information in this form together with any accompanying information is complete and correct to the best of my knowledge and belief and I take full responsibility for it.
- I undertake to abide by University Code of Practice for Research (http://www.as.bham.ac.uk/legislation/docs/COP_Research.pdf) alongside any other relevant

professional bodies' codes of conduct and/or ethical guidelines.
- I will report any changes affecting the ethical aspects of the project to the University of Birmingham Research Ethics Officer.
- I will report any adverse or unforeseen events which occur to the relevant Ethics Committee via the University of Birmingham Research Ethics Officer.

Name of Principal investigator/project supervisor:	Elizabeth Grunfeld
Date:	16/07/2013

Please now save your completed form, print a copy for your records, and then email a copy to the Research Ethics Officer, at aer-ethics@contacts.bham.ac.uk. As noted above, please do not submit a paper copy.

Appendix 18

UNIVERSITY OF BIRMINGHAM APPLICATION FOR ETHICAL REVIEW	*OFFICE USE ONLY:* Application No: Date Received:

19. TITLE OF PROJECT

Illness perception and help seeking amongst Ghanaian men. A study of men in Ghana and migrants from Ghana in the UK

20. THIS PROJECT IS:

University of Birmingham Staff Research project ☐

University of Birmingham Postgraduate Research (PGR) Student project ☒

Other ☐ (Please specify):

21. INVESTIGATORS

d) PLEASE GIVE DETAILS OF THE PRINCIPAL INVESTIGATORS OR SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name: Title / first name / family name	Prof Elizabeth Grunfeld
Highest qualification & position held:	Professor of Health Psychology
School/Department	Faculty of Health & Life Sciences, Coventry University
Telephone:	

Name: Title / first name / family name	
Highest qualification & position held:	
School/Department	
Telephone:	
Email address:	

e) PLEASE GIVE DETAILS OF ANY CO-INVESTIGATORS OR CO-SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name: Title / first name / family name	
Highest qualification & position held:	
School/Department	
Telephone:	
Email address:	

f) In the case of PGR student projects, please give details of the student

Name of student:	Lailah Alidu	Student No:	
Course of study:	PhD Psychology	Email	
Principal	Prof Elizabeth Grunfeld		

Name of student:		Student No:	
Course of study:		Email address:	
Principal supervisor:			

22. ESTIMATED START OF   Date: 1st November, 2014   **PROJECT**

ESTIMATED END OF   Date: | 1st May, 2015 | **PROJECT**

FUNDING

List the funding sources (including internal sources) and give the status of each source.

Funding Body	Approved/Pending /To be submitted
Ghana Education Trust Fund	Approved

If applicable, please identify date within which the funding body requires acceptance of award:

Date: | N/A |

If the funding body requires ethical review of the research proposal at application for funding please provide date of deadline for funding application:

Date: | N/A |

23. SUMMARY OF PROJECT

Describe the purpose, background rationale for the proposed project, as well as the hypotheses/research questions to be examined and expected outcomes. This description should be in everyday language that is free from jargon. Please explain any technical terms or discipline-specific phrases.

Purpose
The purpose of this research is to explore men's views on ill health and reasons for seeking or not seeking help.

Background
Men's health has been an issue of concern over the years. Research has shown that men (masculinity) are unlikely to engage in positive related health behaviours as compared to women. These negative health behaviours lead to injury, ill health and death. And this is seen to be common amongst men who have traditional beliefs about masculinity. The ability for men to seek early help for treatment would help in early sickness detection and cure.

Men's health has gained grounds because of lower life expectancy rate and utilisation of health services as compared to women. Several research on masculinity and health focused on younger men, this research seeks will focus on older men. It will therefore to seek to find out if ageing influences help seeking or illness perception in men.

This research will focus on Ghanaian men in London and men in Kumasi, Ghana. The Ghanaian culture and religious beliefs tends to promote masculinity, where men are supposed to be strong and not seen to be vulnerable. Research has shown a contradictory relationship between masculinity and health. This research therefore seeks to explore men's view on ill-health and reasons for seeking or not seeking help.

London was chosen because of the larger Ghanaian population in the UK. A Ghanaian population would be added to ascertain the differences and whether migration to the UK changes illness perception and help seeking. Kumasi is the one of the largest cities in Ghana, it is chosen for this research because it's got larger population and has still got its distinct cultural background as compared to the capital Accra that has been more adulterated with western culture.

Research Questions
Does the male perception of illness change with migration.
Identify help seeking choices of males
Identify barriers to help seeking
Explore influences of ageing on illness perception and help seeking

24. CONDUCT OF PROJECT

Please give a description of the research methodology that will be used

<div style="border:1px solid">

Methods summary

Identification of Participants
Respondents would be recruited from community groups, churches, mosques and clubs.
This recruitment will be done both in Kumasi and London

Recruitment process
 Participants would be contacted directly by the researcher, interested participants would
then be contacted later to book an appointment for an interview (same recruitment process
used in previous study with ethical approval (ERN_13_0787)would be used)

Procedure
The first part of the interviews would take place in London and Birmingham, UK, whilst
the second part would take place in Kumasi, Ghana.
Interviews may take place either in the respondents' home or the respondent's workplace,
at any point in time the principal supervisor would be alerted on the whereabouts of the
researcher. Interviews would take about 45 to 60 minutes. Voice recorders would be used
to record the conversations. Interview schedules would be used; this has been attached as
appendix B and C

Analysis
Interviews would be transcribed verbatim by the researcher and analysed using framework

</div>

25. DOES THE PROJECT INVOLVE PARTICIPATION OF PEOPLE OTHER THAN THE RESEARCHERS AND SUPERVISORS?

Yes ☒ No ☐

Note: "Participation" includes both active participation (such as when participants take part in an interview) and cases where participants take part in the study without their knowledge and consent at the time (for example, in crowd behaviour research).

If you have answered NO please go to Section 18 . If you have answered YES to this question please complete all the following sections.

26. PARTICIPANTS AS THE SUBJECTS OF THE RESEARCH
Describe the number of participants and important characteristics (such as age, gender, location, affiliation, level of fitness, intellectual ability etc.). Specify any inclusion/exclusion criteria to be used.

<div style="border:1px solid">

Total sample size would be 30-35, this would include 15-17 Ghanaian males in Ghana all aged above 50 years, and 15-17 Ghanaian males in London and Birmingham above 50 years

</div>

27. RECRUITMENT

Please state clearly how the participants will be identified, approached and recruited. Include any relationship between the investigator(s) and participant(s) (e.g. instructor-student).

Note: Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

Respondents would be contacted through community groups. Members of these community groups would be approached directly and the purpose of the research would be explained to them, interested members would then be contacted for the interview. Respondents in the UK could contact researcher through the email whereas respondents in Ghana could contact the researcher directly on a disposable mobile number. Recruitment would be done in London, UK and Kumasi, Ghana.

28. CONSENT

a) Describe the process that the investigator(s) will be using to obtain valid consent. If consent is not to be obtained explain why**.** If the participants are minors or for other reasons are not competent to consent, describe the proposed alternate source of consent, including any permission / information letter to be provided to the person(s) providing the consent.

mation sheet will be handed out to participants prior to the interview. The researcher will reaffirm that the study is to understand men's views on ill health and reasons for seeking or not seeking help. The PhD researcher will go through anything on the sheet with the participant that they want clarification on and will provide an opportunity for questions before inviting the participant and to sign the consent sheet.

Note: Attach a copy of the Participant Information Sheet (if applicable), the Consent Form (if applicable), the content of any telephone script (if applicable) and any other material that will be used in the consent process.

b) Will the participants be deceived in any way about the purpose of the study?   **Yes** ☐ **No** ☒

If yes, please describe the nature and extent of the deception involved. Include how and when the deception will be revealed, and who will administer this feedback.

29. PARTICIPANT FEEDBACK

Explain what feedback/ information will be provided to the participants after participation in the research. (For example, a more complete description of the purpose of the research, or access to the results of the research).

Participants will be given a debrief form thanking them for participating in the research and providing contact details for further questions or information related to the study. Participants may also indicate at this time if they are interested in receiving a copy of the research results summary.

30. PARTICIPANT WITHDRAWAL

a) Describe how the participants will be informed of their right to withdraw from the project.

This will be done at the consent signing. See consent form and information sheet for detailed description

b) Explain any consequences for the participant of withdrawing from the study and indicate what will be done with the participant's data if they withdraw.

The participant will be able to withdraw from the interview with no consequences.
They can leave at any time up to and during the interview and request their data to be withdrawn from the study at any point up until one month after interview. If a participant leaves the interview part way through, their data will be deleted straight away.

31. COMPENSATION

Will participants receive compensation for participation?

i) Financial   **Yes** ☐ **No** ☐

ii) Non-financial   **Yes** ☒ **No** ☐

If **Yes** to **either** i) or ii) above, please provide details.

Participants in London would be given a 10 pound shopping vouchers as compensation. However, it is culturally not appropriate to give money to elderly men in Ghana, especially as a young person, so a hamper with assorted items would be bought with the £10 and given to participants in Ghana. Shopping vouchers is not available in Ghana.

If participants choose to withdraw, how will you deal with compensation?

if participants choose to withdraw before the end of the study, the voucher will not be given to them

32. CONFIDENTIALITY

a)   Will all participants be anonymous?   **Yes** ☒ **No** ☐

b)   Will all data be treated as confidential?   **Yes** ☒ **No** ☐

Note: Participants' identity/data will be confidential if an assigned ID code or number is used, but it will not be anonymous. Anonymous data cannot be traced back to an individual participant.

Describe the procedures to be used to ensure anonymity of participants and/or confidentiality of data both during the conduct of the research and in the release of its findings.

> Personal/ or work contact information will be requested and stored only if participants express an interest in being contacted again with a summary of the research results. This information will be stored in a locked filing cabinet in the University of Birmingham PhD office 309A. It will not be linked to participants' research data (i.e. audio recordings or interview transcripts) in any way.
>
> Direct quotations will be used in reporting results. This material will be anonymised (i.e. references to people, places, organisations and other potentially identifying material) will be systematically altered in the transcripts prior to data analysis. Participants will be referred to by pseudonyms.

If participant anonymity or confidentiality is not appropriate to this research project, explain, providing details of how all participants will be advised of the fact that data will not be anonymous or confidential.

> N/A

33. STORAGE, ACCESS AND DISPOSAL OF DATA

Describe what research data will be stored, where, for what period of time, the measures that will be put in place to ensure security of the data, who will have access to the data, and the method and timing of disposal of the data.

> Digital recordings will normally be transferred from the digital recording devices to a password-protected computer within one working day of any recording being made, and then deleted from the device.
> Digital recordings will then be stored on a password protected computer. They will be relayed to the transcribers via a password-protected, secure data transfer process. Transcribers will all have signed a standard confidentiality agreement in accordance with their employer's policies or university research policies in the case of a volunteer student transcribe. Data will be stored securely at the University according to the University of Birmingham's Code of Practice For Research for 10 years

34. OTHER APPROVALS REQUIRED? e.g. Criminal Records Bureau (CRB) checks

☐ YES ☐ NO ☒ NOT APPLICABLE

If yes, please specify.

> N/A
> No need for ethical approval in Ghana because, the system does not have any institution to approve of it, this will not create any problem

35. SIGNIFICANCE/BENEFITS

Outline the potential significance and/or benefits of the research

> There is no direct personal benefit to participants.

RISKS

a) Outline any potential risks to **INDIVIDUALS**, including <u>research staff, research participants, other individuals not involved in the research</u> and the measures that will be taken to <u>minimise</u> any risks and the procedures to be adopted in the event of mishap

> Research Staff: The University's guidelines for lone-working and community visits will be followed and the supervisor will be contacted by the PhD researcher before and after completing each interview .
>
> Research Participants: There is very low risk for participants in this study. Participants will be required to give up one hour (during the week) to meet with the PhD researcher. However, burden will be minimised by choosing an interview location and time that is convenient for the participant and which minimises any effects on activities and daily schedules.
>
> Whilst the risk of distress to participants is unlikely, there may be some discomfort in sharing beliefs. The researcher who is conducting the interviews will be mindful to check

b) Outline any potential risks to **THE ENVIRONMENT and/or SOCIETY** and the measures that will be taken to <u>minimise</u> any risks and the procedures to be adopted in the event of mishap.

> N/A

36. ARE THERE ANY OTHER ETHICAL ISSUES RAISED BY THE RESEARCH?

Yes ☐ **No** ☐

If yes, please specify

> N/A

CHECKLIST

Please mark if the study involves any of the following:

- Vulnerable groups, such as children and young people aged under 18 years, those with learning disability, or cognitive impairments ☐

- Research that induces or results in or causes anxiety, stress, pain or physical discomfort, or poses a risk of harm to participants (which is more than is expected from everyday life) ☐

- Risk to the personal safety of the researcher ☐

- Deception or research that is conducted without full and informed consent of the participants at time study is carried out ☐

- Administration of a chemical agent or vaccines or other substances (including vitamins or food substances) to human participants. ☐

- Production and/or use of genetically modified plants or microbes ☐

- Results that may have an adverse impact on the environment or food safety ☐

- Results that may be used to develop chemical or biological weapons ☐

Please check that the following documents are attached to your application.

	ATTACHED	NOT APPLICABLE
Recruitment advertisement	☐	☐
Participant information sheet	☒	☐
Consent form	☒	☐
Questionnaire	☐	☐
Interview Schedule	☒	☐

37. DECLARATION BY APPLICANTS

I submit this application on the basis that the information it contains is confidential and will be used by the University of Birmingham for the purposes of ethical review and monitoring of the research project described herein, and to satisfy reporting requirements to regulatory bodies. The information will not be used for any other purpose without my prior consent.

I declare that:
- The information in this form together with any accompanying information is complete and correct to the best of my knowledge and belief and I take full responsibility for it.
- I undertake to abide by University Code of Practice for Research (http://www.as.bham.ac.uk/legislation/docs/COP_Research.pdf) alongside any other relevant professional bodies' codes of conduct and/or ethical guidelines.
- I will report any changes affecting the ethical aspects of the project to the University of Birmingham Research Ethics Officer.
- I will report any adverse or unforeseen events which occur to the relevant Ethics Committee via the University of Birmingham Research Ethics Officer.

Name of Principal investigator/project supervisor:	
Date:	08.10.2014

Please now save your completed form, print a copy for your records, and then email a copy to the Research Ethics Officer, at aer-ethics@contacts.bham.ac.uk. As noted above, please do not submit a paper copy.