A critical analysis of the impact of inter-generational differences on the attitudes to lifestyle behavioural change among a South Asian population in the UK

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UK	United Kingdom
UN	United Nations
ONS	Office of National Statistics
W.H.O	World Health Organisation
CHD	Coronary Heart Disease
NICE	National Institute of Clinical Excellence
RDA	Race Disparity Audit
CGT	Constructionist Grounded Theory
SA	South Asians
T2DM	Type2Diabetes Mellitus
CVD	Cardio Vascular Diseases
BMI	Body Mass Index
US	United Nations
BEACHeS	The Birmingham healthy Eating & Active Lifestyle for Children Study
SAHELI	The South Asian Heart Lifestyle Intervention
NHS	National Health Service
HDL	High-density Lipoprotein
GT	Grounded Theory

Thesis Abstract

Background

Evidence reports that people from a South Asian background experience a higher prevalence of chronic lifestyle diseases, such as diabetes, obesity and heart disease, with correspondingly higher risk of morbidity and mortality. People who have migrated from South Asia to European countries also show higher risks of developing diseases related to lifestyle compared to the host population. Adopting healthy lifestyles plays a key role in the prevention and management of non-communicable diseases. Lifestyle factors such as diet and physical activity are significant determinants of health. This study sought to critically understand the context of health beliefs and the inter-generational impact on health behaviour and lifestyle through an understanding of cultural background, family and social networks of a South Asian population living in the UK.

Aim and Objectives

The aim of this project was to explore the impact of inter-generational differences of attitudes towards lifestyle behaviour change among a South Asian population in the UK. In this study first generation refers to those who moved from their native country to the UK; second generation refers to individuals who were born in the UK, and who have a migrant first-generation parent/s.

Methods

A qualitative study was carried out, using a social constructionist methodology and a constructivist grounded theory method of data collection and analysis. Data comprised of 27 in-depth semi- structured interviews. Data analysis followed the procedures of the Grounded Theory method outlined by Charmaz (2006, 2008, 2011) involving open coding and constant comparison.

Findings

Findings explored South Asian's diverse perspectives of health and well-being, lifestyle practices and experiences, lifestyle constituents and the ways in which they think about bringing about lifestyle changes. The impact of personal, social and cultural characteristics on health and health behaviour was highlighted. Factors involved in accepting healthy choices were communicated, with discussion focused particularly on generational differences in health beliefs Younger participants from both generations appeared to be willing to adopt lifestyle changes.

Conclusions

Health issues and fear of progression of disease have an influential impact on lifestyle behaviour change among first generation older participants. However, younger participants were more inclined to change their lifestyle to avoid facing health related challenges faced by their parents and other older family members. Findings suggest that the impact of the difference in age and generational perspectives of health and healthy lifestyle can be useful to understand how South Asian people engage with and/or adapt healthy behaviour. A critical understanding of different factors influencing their health behaviour should be used by public health and health promotion professionals as well as policy makers in targeted interventions to alleviate those issues that most impact on their engagement.

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Chapter 1

1.1 Introduction

There is clear evidence that people of South Asian origin living in the United Kingdom (UK) suffer higher rates of morbidity and mortality from a range of diseases and health conditions, such as Coronary Heart Disease (CHD) and that they are also at greater risk of developing obesity compared to other ethnic groups (Gill *et al.,*2004; Balarajan,1995). In the UK, the term 'South Asian' refers specifically to people of Pakistani, Indian, Bangladeshi and Sri Lankan origin (Bhopal,2004; British Sociological Association, 2005). Research has consistently found a higher CHD mortality rate in South Asian men compared to the general population (Forouhi *et al.,* 2006; Barnett *et al.,* 2006).

Moreover, Type 2 diabetes, cardiovascular disease and complications related to these health conditions are attributable to higher rates of avoidable morbidity and premature mortality rates in UK South Asians (Hardy, Rosato and Teyhan,2008; Joshi *et al.,*2007; The Health Survey for England, 2004), the risk of Coronary Heart Disease is 50% higher in first-generation UK South Asians than in the white European population (British Heart Foundation, 2018). Mortality rate due to cardiovascular diseases is substantially higher in South Asians (76%) compared to Europeans (46%), the reason for increased risk of cardiovascular morbidity and mortality is related to insulin resistance. Hence, mortality and morbidity from heart disease among South Asians with diabetes is two to three-fold excess over the European counterparts (Mather, Chaturvedi and Fuller,1998; Bellary *et al.,*2010). However, Zaman *et al.,* (2012) suggest that higher incidence of coronary disease is associated with South Asian migrants but lower mortality once disease is manifest. The evidence also suggests that the prevalence of type 2 diabetes has been found to be higher among South Asians compared to their white British counterparts (Fischbacher *et al*., 2009; Chowdhary and Lasker, 2002). For example, the estimated prevalence of age-standardised type 2 diabetes in UK South Asians, is three to five times higher than the general population in the UK (Health Survey England, 2004; Greenhalgh 1997; Patel and Bhopal, 2007). Approximately 4.7% of South Asians have type 2 diabetes compared to 2.8% of white Europeans (Mostafa *et al.,* 2010). It is evident from South Asian's diabetic profiles that they develop the disease significantly earlier in life and suffer diabetes

related complications for longer with consequently higher mortality risk compared with the general white population in the UK (Fischbacher *et al.*, 2009; Joshi *et al.,* 2007; Chowdhury and Lasker, 2002).

Across Europe, health inequalities and disparities have become perpetual and complex among different socioeconomic groups; inequalities also appear to have increased rather than declined (Mackenbach *et al.*, 2003). A number of studies have provided an explanation for health inequalities since the Black Report discussed the unequal distribution of ill-health and death among the British population. Although evidence on health inequalities has accumulated, little is known about the factors contributing to health inequalities (Lahelma, 2006). It is a paradox that equalitarian societies with universal welfare policies do not exhibit the lowest health inequalities (Berggvist *et al.,* 2013; Lahelma, 2013). Various factors are suggested to shape health inequalities exemplified by structural/material factors such as social class, education and income as well as behavioural/lifestyle factors such as smoking, drinking and obesity (Lahema, 2013; Van *et al.,* 2005). Differences in health-related behaviours are important factors suggested to explain the puzzle of health inequalities across welfare regimes (Mackenbach, 2012; Bambra, 2011). Behaviours could play an important role in explaining health inequalities as health compromising behaviours are usually not the focus of welfare state related policies, and in particular, cultural aspects are traditionally ignored (Balaj, 2017; Mackenbach, 2012) whereas smoking, diet, physical activity and alcohol consumption are widely related to socioeconomic circumstances (Kino *et al.,* 2017).

In addition, ethnic health inequalities are well documented in the UK (Ernes *et al.,* 1999) and have been historically (Black*,* 1980), and the reasons are complex for the multifactorial health inequalities for minority ethnic groups (Randhawa,2007). In the UK, individuals from ethnic minority groups such as Black African and Caribbean, Indian, Pakistani and Bangladeshi have been found more likely to report ill-health than the white population (Becares, 2013; Harding and Balarajan, 2000). Ethnic minority groups are diverse and the health needs of one group might be different from another. Cultural and religious sensitivity is required and traditional practices such as lifestyle, food and language should be addressed to meet the health needs of ethnic populations (Barnett *et al.,* 2006).

This thesis primarily focuses on the attitudes and perceptions towards healthy lifestyle behaviours of a South Asian population living in the UK. The importance of wider social determinants of health are recognised in much of the research literature, but less nuanced focus has been given to the socio-cultural dimension of health perceptions and beliefs and how this might influence and inform healthy behaviours. Thus, the intent of this thesis is to identify the attitudes towards lifestyle behaviour change and health perceptions of a South Asian ethnic group in the UK, and to analyse the impact of inter-generational differences on health behaviour among this minority group. A recent study indicated that the existing health risks for this particular ethnic community might increase as second-generation immigrants exhibit similar prospects as their parents and grandparents (Barnett *et al.,* 2006). People from a first-generation are described as migrants who have moved to the UK from their native country. People described as second-generation are those born in the UK, and who have a migrant first-generation parent/s (Bhatnager, Shaw, Foster, 2015). In this study first generation refers to those who moved from their native country to the UK and the second generation is referred to those participants who were born in the UK.

This study also aims to explore the knowledge and perceptions of South Asian participants towards health practices, ideas and values and to explore the impact of cultural and religious factors on health behaviour change. It also aimed to identify the relationship between various aspects of South Asians' belief system in the Diaspora and modification of lifestyle behaviour. This study helps us to identify those factors which account for the continuity or discontinuity in the patterns of attitudes possessed by two generations within the wider migrant South Asian population living in the UK.

1.1.2 Ethnicity & Health Inequalities

Ethnicity implies a shared origin or social background, language, distinctive culture and religious traditions maintained between generations establishing a group (Senior and Bhopal, 1994). According to the 2011 UK census, 87.1% people are White in England and Wales and 12.9% are from different ethnic minorities including Black, Asian, Mixed or other groups. South Asians comprise 7.5% of the whole population (National Statistics, 2011).

Epidemiology is the study of the distribution and determinants of disease, and ethnicity is widely used as a variable to describe populations for epidemiological studies. The studies emphasising ethnic inequalities have brought aetiological inquiry into the spotlight and researchers of ethnicity and health advocate the significance of understanding aetiology rather than to develop health policies and services (Senior and Bhopal, 1994). Ethnicity is a diverse subject and a composite of various factors such as language, marriage patterns and common ancestry. However, ethnicity is always measured inadequately in epidemiological studies which consequently fail to inform about the social nature and socioeconomic and cultural heterogeneity within and between ethnic groups (Bhatnagar *et al*., 2015). The South Asians in the UK are commonly known as homogeneous and believed to have shared a common culture, however this particular ethnic group represents a wide cultural diversity in language, religion and lifestyle such as diet and food ways (Kassam-Khamis *et al*., 2000; Farooqi *et al*., 2000).

The association between health status and ethnicity is established since the time when quantitative health data was first recorded (Smith *et al.,* 2000). In 1916, John W. Trask found lower mortality rates in Whites than Blacks and increased mortality in Blacks was linked to poor socioeconomic circumstances (Trask, 1916 and Engels, 1987 cited by Smith *et al.,* 2000). In 1948, the establishment of the UK National Health Service (free at the point of use health service) aimed to reduce the health inequalities across the UK, however by 1970 it became evident that free healthcare access had not been enough to diminish rising health inequalities. In response, the Labour government in 1970 acknowledged the issue and responded by asking Sir Douglas Black to work on it (Bambra, 2016), he produced a report which became known as 'The Black Report'. This report revealed that inequalities in health outcomes are present, pervasive and persistent (Marmot ,2010).

Further, the Black Report mainly focussed on the evidence of health inequalities attributable to social class inequalities. It emphasised that health inequalities in the UK were the result of material conditions as more consideration was given to socio-economic determinants rather than lack of access to high quality medical care (Black, 1980, Freeman, 2006). The report

presented a range of explanations, including artefactual, structuralist, cultural and behavioural explanations of health inequalities, though in the main structural foundations on health inequalities were emphasised. However, the Black Report lacked any discussion or research review reporting those issues and there was little analysis of ethnic divisions in health or the complexity of cultural factors. Nonetheless, the Black Report (1980) brought health inequalities into focus, alongside how ill-health and mortality are unequally distributed among the UK population. A comprehensive strategy of social policy measures were presented in this report to counter inequalities in health. The report had huge impact on political thought at the time and urged to give high priority to the health of families with children and placed a significant amount of emphasis on reducing income inequalities and improve living standards of poorer households (Richmond, 2002).

The Black Report (1980) came in the wake of the recognition of the issue, however Margaret Thatcher's Conservative government largely rejected the report claiming it to be unrealistic and flawed. They replaced the term 'health inequalities' with 'health variations', which they implied were 'natural differences' and should not be a concern for politicians and policy makers. Thatcher's policy did not address health inequalities and it led to a dramatic increase of inequalities in access to healthcare and specific causes of mortality especially alcohol, drug related suicide and violence. These causes of deaths were not physiological but socially produced as a result of unemployment, poverty and income inequality.

The Black Report was followed by Sir Donald Acheson's Report (1998), which was an independent inquiry into inequalities in health commissioned by the newly elected Labour government who pledged to implement evidence-based policy recommendations and highlighted the need to address the health inequalities through a multifaceted approach. Unlike Black's report, the Acheson's report focussed on psychosocial determinants of health inequalities, because by the time the Acheson's report was written psychosocial theories had emerged as a credible body of academic research within the health inequalities research community. Hence, Acheson enquiry and Marmot report prompted to tackle health inequalities by reducing psychosocial work hazards (Bambra *et al.,* 2011) and addressing psychosocial stressors. The Marmot review and Acheson Report placed an increased

emphasis on relative inequalities after the health inequalities research undertaken since the 1980 Black Report. These reports also highlighted the complexity of the way in which the material conditions often interrelate with various other determinants (Wilkinson and Pickett, 2009; Marmot, 2005; Marmot, 2004).

Marmot's report consistently emphasised the importance of the recognition of 'continuing gradient of health', which affects the entire social spectrum (Marmot, 2010). This development was a clear distinction between the Marmot Review and the previous two reports, it led towards the introduction of the concept of 'proportionate universalism' that advocates that interventions should be both universal and targeted towards where they are needed more (Bambra *et al,* 2011). The Marmot report's recommendations to give every child the best start; maximise their capabilities; create fair employment; and create and develop healthy standards for all, were remarkably similar to those of the Black Report (Pickett and Dorling, 2010).

The Black and Acheson Inquiry largely focussed on preschool services, so the Marmot report provided a new focus by emphasising the reduction of inequalities in education outcome. Unlike the Black Report, the two more recent reports strongly focused on employment and training opportunities to reduce health inequalities. All three reports call for the improvement of transport and housing. The Black report recommended improvement of public transport and focussed on the quality and availability of local authority housing. However, Marmot and Acheson's recommendations were underpinned by a new focus on environmental, health, safe housing particularly housing for older people (Bambra *et al,* 2011).

From 2004-2007, public health policy shifted from the social and economic determinants of health towards a focus on healthcare services and lifestyle behaviours in response to the health policy's increased emphasis on individual responsibility of health outcomes (Bambra, 2016). However, the health policy does not specifically address ethnic inequalities in health, and little development is seen in local interventions. It also lacks the evaluation of specific or general policy on ethnic equalities on health. Ethnic inequalities are neglected in the Marmot Review, assuming that socioeconomic inequalities are not important for ethnic inequalities in health (Nazroo, 2017).

In terms of lifestyle behaviour, all three reports suggested community/individual level interventions related to food and obesity rather than regulation of the food industry. In relation to smoking and alcohol, all three reports noted that people's behaviour is also constrained by structural and environmental factors (Bambra *et al,* 2011). However, this evidence resulted in minimal impact on policy, and limited progress in improving an understanding of health inequalities beyond the content of the Black report (Bambra *et al*, 2011). The Marmot Review was criticised for not providing the crucial part of the story in terms of health inequalities. There is more focus on maximising the 'capabilities' of children and young adults rather than providing recommendations to reduce the harm created by great differences in rank and status (Pickett and Dorling, 2010), since we are aware of the biology of chronic stress (Sapolsky, 2005) and how rank and social status harm health (Marmot, 2004). It is argued that 'maximising the capabilities' is the language of economics, which permeates the Marmot Review, and it is not social epidemiology or progressive public health (Pickett and Dorling, 2010). A new approach to policy making was introduced by the Acheson report and cross cutting reviews that widely relied on research and other evidence (Davies, Nutley and Smith, 2000) that helped established health inequalities as "policy problem" (Smedley, Stith, and Nelson 2002). Additionally, progress has been evident in the structure of policy making in terms of recognising the potential impact of health policies upon health inequalities. However, poor integration of "health inequality' policy within mainstream and sparse evidence about effective interventions are the pitfalls of the policy making process. To address those pitfalls and making a significant reduction in health inequalities the nature of the health policy should shift from just health care (cost, quality and access) to grid the social determinants of health (Exworthy, Blane and Marmot, 2003).

1.2 Migration and Health

Increased migration both to and within European Union countries has posed a great challenge for host countries and has implications for the organisation and development of health services (Thomas and Gideon, 2013; Rechel *et al.,* 2013). Available data suggests that immigrants in their host countries tend to be more susceptible to certain communicable

diseases, occupational health hazards, poor mental health, diabetes and maternal child health problems. Some of them might be particularly at risk of non-communicable diseases attributable to obesity and lack of physical activity (Rechel *et al.*, 2013). Unhealthy diet and physical inactivity are the major risk factors identified for Type 2 Diabetes, that are modifiable (Ramachandran, 2013). In order to understand the healthcare issues of migrants, it is considered important to know the different ways in which they can interpret and seek support within their own cognitive and epistemological frameworks of understanding. Structural inequalities associated with an individual's immigration status are widely recognised to affect his or her ability to access healthcare and support (Thomas and Gideon, 2013).

Research into the health of migrants is limited and has tended to focus on ethnicity and ethnic variations in health, rather than on migrant status (Jayaweera and Quigley, 2010), and generational issues complicate that picture, particularly amongst some migrant groups with strong histories of settling in the UK. More significantly, little research has explored generational differences in terms of perceptions of and attitudes towards health and public health messages about lifestyles. A number of studies suggest migrants enjoy good health at the time of migration (referred to as the 'healthy migrant effect') (Bispo and Dos Santos, 2013; McDonald and Kennedy, 2004) but that their health status deteriorates over time in countries of settlement (Delavari *et al*., 2013; Johnson, 2006).

There is debate over the extent to which this deterioration in health status is attributable to 'acculturation' (the adoption of norms, values, and lifestyles prevalent in the host society), or to structural barriers to good health such as socioeconomic deprivation, low income, poor housing, and poor access to health services (Jayaweera and Quigley, 2010; Johnson 2006; Hunt *et al*., 2004). Rechel *et al*. (2013) argue that moving from low-income to high-income countries causes the progress from a society in its early stages of health transition to one in more advanced stage. This may result in the declining risk of communicable diseases due to improved hygiene and environmental conditions. However, there is a risk for chronic diseases attributable to unhealthy lifestyle (Rechel *et al.*, 2013). Critics of acculturation as an explanatory theory state that insufficient attention is paid to evidence about the health

conditions in migrants' countries of origin, and the ones in which they arrive, with widespread stereotyping of ethnic groups and a lack of specificity when referring to 'culture' (Hunt *et al.,* 2004). Known lifestyle and behavioural changes among some migrant groups once settled in the UK include higher levels of smoking, lower levels of breastfeeding, decreasing patterns of activity, and eating diets high in fat (Hawkins *et al.,* 2008; Jayaweera and Quigley, 2010).

Migrant groups are complex and diverse, and therefore it is very difficult to make generalisations about specific populations. Migrants are not a homogeneously shaped population but rather they present enormous variation in terms of religion, culture, language, ethnic origin and country of origin (Rachel *et al*., 2013). However, evidence suggests that a common experience is that the health status of migrants deteriorates overtime, but less is known about the health condition pre-and post-migration. Known changes among migrant groups include higher levels of smoking, eating food high in fat and lower levels of physical activity (Condon and McClean, 2016, Condon, McClean and McRae, 2020).

As mentioned earlier, it is widely documented that South Asians are more at risk of Type 2 diabetes and cardiovascular disease; intrinsic and extrinsic factors are associated with the vulnerability of this particular group. Some, such as genetics, are immutable, however some lifestyle factors such as diet and physical activity could be easily modified (Garduno-Diaz and Khokhar, 2014). It is suggested that migrants are unfavourably selected by smoking, high alcohol consumption and generally negative life attitudes. These factors may become determinants of health within migrant groups regardless of their generally good physical health at the time of migration compared to non-migrants (La Parra-Casado *et al.,* 2017). This is suggestive of migrants as an important target group for primary prevention and this group is at increased risk of major chronic diseases from a long-term perspective. Those risks and patterns become more complex in host countries and go along with the migrant populations and even their descendants (Bhopal, 2007).

A diverse ethnic population in Europe has brought their food culture with them which contribute to a variety of foods and new ingredients that are available (Khokhar *et al*., 2013). Furthermore, it is suggested that South Asians experience an imbalanced nutrient intake

presenting deficiencies as well as over-nutrition. An imbalanced nutrient in childhood increases the likelihood of serious health consequences in adulthood. Wyke and Landman's (1997) research suggests that high rates of coronary heart disease may be attributed to unhealthy diet among people from Indian sub-continents (India, Pakistan and Bangladesh). The traditional South Asian diet consists of small amounts of meat, fish and dairy products and high amounts of carbohydrates, as migrants from low-income countries often abandon their traditional dietary habits and adopt a Westernised diet rich in energy. They are also more likely to adopt a sedentary lifestyle. Another study (Ujcic-Voortman *et al*., 2012), showed the records of higher levels of obesity among Turkish and Moroccan migrant groups than in the resident populations in several European countries.

Furthermore, a notion that migration could be a social determinant of health is developing. Socioeconomic factors appeared to be the main focus of determinants of health in many studies in the past, largely disregarding the migration role (Rechel *et al.*, 2013).

1.3 Who is Migrant?

According to the United Nations (UN) Department of Economic and Social Affairs (1998) and the Office for National Statistics (ONS), an international long-term migrant is someone who moves to a country other than that of his or her usual residence for at least a year, so that the country of destination becomes his/her new country of usual residence (Anderson and Blinder, 2011). Any definition of migrant and of migration contains a significant amount of diversity, in terms of lived experience, culture, and perceived health status. Adopting the UN definitions since 1998, the term 'migrant' rather than 'immigrant' is used. Here, 'migrant' refers to all those people born in a country outside of the UK. This includes recently arrived and/or temporary migrants, as well as those who have settled in the UK for lengthy periods of time.

According to the International Organisation for Migration (2010), an estimated 72.6 million migrants lived in the World Health Organisation (WHO) European region in 2010, that is 5.1 million more than in 2005. In 2018, non-UK born population was 9.3 million, with around 1 in 7 of the UK population born outside the UK (Office for National Statistics, 2018); currently the

UK is the third most popular destination for immigrants worldwide (Bispo and dos Santos 2013; Vargas-Silva, 2011).

1.3.1 South Asian migration to the UK

South Asians originating from Indian sub-continents comprise of India, Pakistan, Bangladesh and Sri Lanka, constituting one quarter of the world's population (Robinson, 2005; WHO, 2002). There has been a progressive migration from this region to the UK since the second world war and over the past 50 years, at least two generations of South Asians have been born and educated in the UK. The South Asian history of migration started in response to the demand of labour in different economic sectors, where migration reached its peak by the early 1960s and was limited by The Commonwealth Immigration Act (1962) introducing its first legislation of settlement in the UK (Robinson, 2005).

The latest figures show that the South Asian population in the UK is heterogeneous, with diverse social and economic backgrounds (Hanif and Muhammad, 2009). A large proportion of South Asian people from India, Pakistan, Bangladesh and Sri Lanka migrated into the developed countries in the last century resulting in a significant growing portion of population in these countries. The South Asian group comprises the largest ethnic group in the United Kingdom (Hanif and Muhammad, 2009), accounting for nearly one-half of the 4.6 million minority ethnic population in the UK in 2001 (Peach, 2005). The Indian population of over one million is amenable to one-half of the South Asian population while the Pakistani population of 750,000 accounted for over one third of the whole South Asian ethnic group in the UK. The Bangladeshi population of 280,000 is accountable for 14% of the South Asian population. It is worth noting that in 2001, about 49% of British South Asians were born in the UK (Peach, 2005). The census (2011) shows Indian as the largest minority (2.5%), whilst Pakistani (2.0%) and Bangladeshi accounted for (0.8%) of the UK population respectively. In terms of patterns of settlement, nearly half of the Indian population lives in the South East region and London, whereas the Pakistani community is highly concentrated in Yorkshire, Humber and the West Midlands (Robinson, 2005).

1.4 UK South Asians' health and wellbeing status

South Asian immigrants are predicted to contribute to 40% of global cardiovascular disease burden by 2020, due to diet and other lifestyle changes (Gholap *et al.*, 2011). Mortality rates among South Asian first generation migrants in high income countries have been found to be higher than those of the native population (Fischbacher *et al.*, 2007).

1.4.1 Obesity and Type 2 Diabetes

As stated, people from a South Asian background are more likely to develop obesity compared to other groups (Shaw *et al.,* 2007; Whincup *et al.,* 2002), there is a higher prevalence of chronic lifestyle diseases, and greater risk of morbidity and mortality from heart diseases (Bhopal, 2002; Balarajan,1993) and Type 2 Diabetes Mellitus (T2DM) (Mather *et al.*, 1998; Cappuccio *et al.,* 1998) than the European population. Epidemiological studies have found inconsistent outcomes for the prevalence of obesity in high income countries among South Asian children and adults compared with the native population (El-Sayed *et al*., 2011). An estimate of age-related prevalence of type 2 diabetes shows this is between three and five times higher among UK South Asians compared to the general White population (Singh *et al.,* 2012). The study also identified that 20% of UK South Asians have type 2 diabetes compared with 3% of the general population, and data consistently shows the development of disease significantly earlier in life, and the development of complications of the disease among the South Asian population, increasing the mortality risk compared with the White population (Patel and Bhopal, 2007).

The International Diabetes Federation statistics predicts an increase in the number of people living with diabetes from 194 million in 1993 to 333 million in 2025. A rapid change in dietary habits among migrant communities may cause major concerns for public health in Western countries. These concerns constantly lead to increased diet-related diseases such as diabetes, and the same is the case in South Asian communities in the UK (Pieroni *et al.*, 2007). Due to acute socioeconomic and demographic changes with an increase of lifestyle changes resulting in the prevalence of obesity, the Indian subcontinent may be the major contributor to global diabetes in 2025 (Patel and Bhopal, 2007). This personal and societal burden could be

addressed by preventing or delaying the onset of the disease in these communities (Cross-Bardell *et al.*, 2015).

1.4.2 Coronary Heart Disease

Evidence suggests that South Asians are generally overweight and have high waist/hip and weight/height ratios (Williams *et al.*, 1993). Migration to the UK has brought Coronary heart Disease (CHD) but the prevalence is higher in South Asians (Bhopal, 2002; Balarajan, 1993) and Italians (Bush *et al.,* 1998). People who migrated from India, Pakistan and Bangladesh have the highest rates of cardiovascular diseases (Bhopal, 2000) and diabetes (Bhopal *et al*., 1999). Indeed, evidence suggests that South Asians have shown a significantly higher risk from CHD compared to the general population and an overall increased rate of mortality of 40%, with corroboration that the prevalence is even higher in women and younger age groups (Wild *et al.,* 2007; Chambers *et al.,* 2001; Balarajan, 1995; McKeigue *et al.*, 1989).

Many studies have noted that heart disease and insulin resistance in British South Asians has been associated with a tendency of central fats deposition (Chambers *et al.*, 2001). Patterns of diet and exercise have caused an excess of energy intake and the results of a study with a Punjabi Muslim population in Glasgow confirms significantly higher energy intake forming a notably higher proportion of fats (Anderson *et al*. 1995). This is a concerning matter for public health because the marked abdominal fat is a great risk for heart disease, and the mortality rate in British South Asians from heart disease is much higher than the general population (Bush *et al*, 2001; Marmot *et al.,* 1983). A further study revealed that declining rates of CHD are much slower among South Asian women whilst CHD is diminishing across the UK as a whole (Anand *et al.,* 2004; Wild and MacKeigue, 1997).

South Asian people suffer considerably higher death rates from coronary heart disease and Type2 Diabetes mellitus than the national average hence reducing obesity is an important target for reducing the incidence of CHD in this community (Gholap *et al.,* 2011). According to the CHD statistics, the mortality rate in South Asians is falling at a rate much lower than the rest of the population which causes an increase of health inequalities (Netto *et al*., 2007). Patel and Bhopal (2007) state that UK South Asians have a four to six-fold increased

prevalence of diabetes than the general White population, therefore the high prevalence of cardiovascular disease is not surprising.

Williams *et al.* (1993), suggest that it is crucial to understand why the South Asian minority group is at risk and what measures could be taken to prevent what is happening. They further explain that it is also very important to understand this particular group's health care needs as they are different from the general population as a consequence of their patterns of illness, health beliefs and lifestyle. Lifestyle factors such as smoking, diet and physical activity play a vital role in the aetiology of heart diseases. Since dietary intake and physical activity have a key role in development of heart diseases, it is documented that UK South Asians have a higher intake of polyunsaturated fats and carbohydrates but lower total saturated fat intakes compared to Europeans (Patel and Bhopal, 2004).

The UK South Asian's dietary customs and cultural attitudes are important health determinants, however this area is under researched (Leung and Stanner,2011). Similarly, discussing dietary patterns of ethnic minority groups, Khokhar *et al*. (2013) stated that lack of food composition data and information about recipe and portion sizes for ethnic foods are the main challenges for dietary assessment of ethnic minority groups. Given an increased risk of lifestyle related diseases in the South Asian group there is a need to identify lifestyle behaviours and attitudes of this particular group that may contribute to health risks (Lucas *et al*., 2013). NICE (National Institute for health and Clinical Excellence) also recommends lifestyle behaviour change to minimise the risk factors and tailored the advice on lifestyle change for different groups especially minority groups. Lifestyle factors have become a particular concern for public health such as obesity, a study revealed being overweight and obesity are more common among migrant than non-migrant children (Labree *et al.*, 2011).

1.5 Social and cultural impact on health

An increase in the incidence of chronic diseases and significant differences in the outcome of interventions across various ethnic groups has raised concerns for the healthcare community. This situation has led them to consider the patient's social and cultural environment and its potential impact on disease management (Singh *et al.,* 2012). Clearly, it is vital to understand

cultural background for an intervention to be successful as Greenhalgh *et al*. (1998) argue that successful diabetes management requires a holistic consideration of the lifestyle, beliefs, attitudes, family and social networks of the patient.

Poor management of diabetes control may be attributable to different factors such as self-care of patients as well as clinical management, therefore Singh *et al*. (2012) argue, the knowledge of people's perceptions of barriers that prevent them from achieving their glycaemic targets and engaging with the support system may contribute towards designing an effective diabetes intervention.

Interventions need to be tailored for individual migrant groups, taking account of country of origin, their legal status as well as addressing other socioeconomic risk factors (Rechel *et al.*, 2013). To design effective health services and population-based prevention strategies to minimise the risks of developing chronic diseases, the knowledge of ethnic-specific health needs is crucial (Fedeli *et al.*, 2018). As discussed above, the increased prevalence of cardiovascular diseases and Type 2 diabetes, and the relatively slower declining rates of CHD among UK South Asians require recognition of ethnic inequalities while designing and implementing population-based health services. Ethnic specific data is essential to identify cultural factors attributable to minimise the ability of interventions addressed at the indigenous population to reach ethnic minority groups (Modesti *et al.*, 2016).

1.6 What is Lifestyle behaviour

"Lifestyles are patterns of (behaviour) choices from the alternatives that are available to people according to their socio-economic circumstances and the ease with which they are able to choose certain ones over others" (WHO 1986: 118). This definition implies the recognition of contextual elements of an individual's choice however it does not specify which 'behaviours' are attributable to the prevention of disease and health maintenance. Although, it clearly states that the behavioural change should not be left to the individual to achieve but it should be addressed at societal and policy levels. However, it can be argued that as we have

reached the age of responsibility (WHO 1986:124) the notion of responsibility at both individual and societal levels should be linked to the use of the term lifestyle.

Lifestyle is a term which policy makers use to refer to disease where behaviour plays a role in the aetiology of the condition. In 2006, Tony Blair, the then Labour prime minister, used the term lifestyle diseases and called for 'lifestyle change' to relieve the pressure on the NHS (BBC News 2006). Dean *et al*. (1995) state that there are behaviours that collectively contribute to a lifestyle and rather than discrete behaviour the term 'lifestyle' entails related behaviour. They further argue that lifestyle could be described as a social phenomenon and lifestyle is created by the interaction of patterns of behaviour with the situational contexts. The lifestyle is fundamentally a pattern of behaviours and behaviour practice which is shaped by cultural values and beliefs and are encouraged or limited by specific socioeconomic conditions (Dean *et al*., 1995; WHO 1986). Consequently, lifestyle behaviour in relation to health could be defined as an individual's choices about diet, physical activity, drinking alcohol, smoking tobacco, taking drugs and sexual practices (Thirlaway and Upton, 2009).

1.7 What are Lifestyle diseases

A lifestyle disease can be as a result of unhealthy living habits. There are six suggested major lifestyle diseases which are coronary heart diseases, stroke, lung cancer, colon cancer, diabetes and chronic obstructive pulmonary disease (Doyle, 2001). Biigel (2003) has expanded the list by including cancers in general and osteoporosis as lifestyle diseases. Placing sexually transmitted diseases under the lifestyle umbrella is criticised and argued to be completely under behavioural control (Thirlaway and Upton, 2009). Obesity is however considered a lifestyle disease by some authors whereas it is categorised as lifestyle behaviour by others (Doyle, 2001).

In 2006, Tony Blair revealed one of the major challenges faced by the NHS is that of 'lifestyle diseases' and in his time as a prime minister a great deal of attention was given to this issue within academia, social policy and media (Thirlaway and Upton, 2009). Poor health and illness attributable to an unhealthy lifestyle is increasingly recognised and lifestyle has a considerable impact not only on individuals but also on the population as a whole's health.

The inevitable influence of social class, gender and ethnicity on lifestyle disease should be taken into account (Thirlaway and Upton, 2009).

1.8 Lifestyle Behavioural Change

Evidence supports highlighting the role of healthy lifestyles in the prevention and management of a range of non-communicable diseases (Blair, 2009; Gillies *et al,* 2007). Studies have revealed that low levels of physical activity, low fruit and vegetable intake and higher intake of carbohydrates are the main cause of acquisition of central obesity, insulin resistance, diabetes and low HDL levels in South Asians as compared to other ethnic groups (Gupta *et al,* 2009; Sharma and Ganguly, 2005; Fischbacher, Hunt and Alexander, 2004). Food and diet is crucial for healthy living and evidence suggests that diet accounts for 30% of the attributable risk of adult mortality in the United Kingdom, therefore improvement in dietary habits can significantly minimise the risk of morbidity and mortality (Wyke and Landman, 1997).

Since the South Asian population living in the UK has been found to be more vulnerable to non-communicable diseases due to lifestyle, hence lifestyle changes become central. Post-migration, the adoption of a new culture often leads to a sedentary lifestyle, increased calorie intake and unhealthy food choices (Condon, McClean and McRae 2020). Pakistani, Indians and Bangladeshi groups in the UK have shown lower activity levels which makes this group more susceptible to lifestyle related diseases (Davies *et al.*, 2011).

It is important to understand how people make lifestyle changes and how other multitude of factors including ethnic, religious and cultural norms affect those changes. Different structural, cultural and environmental barriers were identified to adapting physical activity and healthy diet (Patel *et al,* 2016). Barriers such as lack of time, money, facilities and incongruence of the minority culture for physical activity were addressed among South Asians (Babukas and Thompson, 2012). Another study found existence of barriers and facilitators to physical activity at individual, community, socio-economic, cultural and environmental levels among Black and Minority ethnic adults and older adults in the UK. Cultural expectations, social responsibilities, appropriate environment, religious fatalism and practical challenges

were particularly considered crucial to address low levels of physical activity among BME groups (Janet *et al,* 2018).

1.9 Health Beliefs and Attitudes

Many studies have established the importance of lay health beliefs in influencing an individual's behaviour and the way they understand health, illness and treatment (Beishon and Nazroo, 1997; Courtenay *et al*. 2002; Patel *et al.*, 2015), and they can affect the response to health education messages and interactions with health care services (Nazroo, 1997). Health beliefs are underpinned with perceptions about individual susceptibility to and controllability of diseases and injuries (Weinstein, 1984). Health beliefs and attitudes help shape health behaviours, and they can have a significant effect on a person's acceptability of a healthy lifestyle intervention. Health beliefs reflect those actions taken by an individual to prevent illness and maintain good health. Therefore, it is crucial to identify and understand the beliefs that might contribute to health risks (Lucas *et al.*, 2013). A person's belief about the extent to which health problems can be prevented reflects an individual's perception of those factors that affect their health (Smith *et al.,* 1999). A positive association has been found among young generally healthy individuals between personal actions and psychological factors related to their vulnerability to diseases and how controllable those events are (Weinstein, 1984). This association is important to understand preventive health behaviours of young people whose lifestyle is more likely to be altered.

It has been suggested that the transmission of health education messages to the general public is becoming problematic because people have become confused and concerned about conflicting advice, resulting in less positive responses to health messages (Bury, 1994). Similarly, Smith *et al*. (1999) cited Davison *et al.,* (1991), that fatalistic attitudes towards illness may also determine whether or not the disease is preventable. It is evident that preventable risk factors play a vital role in causing various health events and health improvements could be achieved by reducing these risk factors. Research suggests a strong relationship between beliefs about preventability and knowledge of preventable risk factors

as compared to the other factors which were not considered preventable. Having knowledge of those preventable factors, an individual has a broader sense of control over the factors affecting their health which is central to the aims of health promotion. In this sense health beliefs could be a useful indicator to achieve the objectives of health promotion programmes (Smith *et al.,* 1999).

Health promotion and prevention programmes are an integral part of the health care system, the aim of which is to develop health improvement and disease prevention strategies. Little is known about the public awareness and confidence for the prevention of disease. Questions like 'what are the differences in health beliefs about the prevention of certain health conditions in different population groups' are under-addressed (Smith *et al.*, 1999). Stewart *et al.* (1989) emphasised that health professionals should enter a patient's world to gain an understanding of their beliefs as these acknowledgments of lifestyle behaviour may affect the acceptability and delivery of lifestyle interventions.

Cultural and social attributes are associated with health beliefs, these factors can influence an individual's health behaviour. An individual's motivation to reduce risk factors is determined by their cultural or social settings (Beishon and Nazroo, 1997; Smith *et al*., 1999). The label 'Asian' comprises of a number of cultural groups in Europe; it includes many nationalities including five language groups and four major religious traditions on the Indian sub-continent alone. Each group of South Asians seem to have different health perceptions and beliefs from each other within this particular group. Exploring the health attitudes between certain ethnic minorities and the diversity of attitudes within ethnic minorities is crucial as it gives an opportunity to avoid the stereotyping which assumes people from an ethnic group are all the same (Lucas *et al.,* 2013). It is important to completely understand those differences to ease the effective transmission of health promotion messages (Johnson *et al.,* 1996). However, originating from the same geographical background, a group shares many customs and cultural practices including food, dress and ceremonies in spite of language and religious differences (Johnson, 1999). Consequently, all the differences and similarities of health beliefs should be taken into account and health messages and programmes should be tailored accordingly.

1.10 Political drivers for migration and health inequalities

The WHO European Region has experienced a sudden influx of migrants, refugees and asylum seekers from areas affected by political unrest, economic crisis and war resulting in 1.5 million people arriving in the European Union in 2015 (Scholz, 2016; WHO, 2013). As well as an immediate health response WHO Europe calls for the need to act beyond the emergency and advocates health systems to respond; covering the three phases of migration arrival, reception and integration into the host society (Scholz, 2016). Along with other issues such as population vulnerability and human rights, migration and health has been accentuated significantly in the new WHO European health policy framework (WHO, 2013). Health 2020 presents a comprehensive framework and approaches to action that are required in public health (WHO, 2013) and calls for making health policies and systems in WHO European region that could address the diverse health issues of the migrants (Scholz, 2016). Health inequalities in the UK could be defined as the differences in health status between different population groups which can be avoidable. It is a legal duty of the Secretary of State for Health to comply with the Equality Act 2010 in order to reduce health inequalities. The Prime Minister's Race Disparity Audit (RDA) highlighted this issue and emphasised an enhanced collaboration between Government, working partners and communities to carry out more efforts and actions in this area to address ethnic inequalities.

Engaging with ethnic inequalities to gain explicit focus is important to bring positive improvements and to address the risk factors leading to poor health outcomes in diverse communities. However, research indicates that not enough actions have been taken in public health and health care commissions to address this contentious and complex issue (Toleikyte and Cosford, 2018 public health matters blog). Health prevention strategies for chronic diseases include health promotions campaigns and interventions to decrease tobacco use, increase physical activity and improve diet which are guided by international guidelines and national health policies. Health interventions and general recommendations for the improvement of physical activity and a healthy diet usually disregard the gender, ethnicity or economic conditions of individuals (National Clinical Guidelines Centre, 2014). Low levels of adherence to recommended dose and duration of physical activity is reported in most ethnic

groups particularly in South Asians (William *et al*., 2011). The National Institute for Health and Care Excellence (NICE, 2015, preventing diabetes) advises that physical activity and weight management interventions need to be tailored according to the religious beliefs, cultural practices, age and gender of ethnic minority groups. Physical inactivity is more likely to account for the higher risk of heart diseases in the South Asian population hence it should be a public health priority to take effective measures to increase physical activity levels in the South Asian group (William *et al*., 2011).

1.11 Health Behaviour

Health behaviour is defined as an activity undertaken, or not undertaken by a person for detection or prevention of disease (Conner and Norman, 2005). Health behaviours could be diverse on the basis of level of education, age, gender, socioeconomic groups and ethnicity. A varied health behaviour in certain ethnic groups is largely dependent on the health beliefs of that certain group. Health behaviour is considered as a social product that is produced within the framework of socioeconomic position and culture (Smith *et al*., 1999). Several studies indicated the dominant influence of socio-cultural context on the perception of health and disease, hence it is crucial to understand the health behaviour and cultural values of that particular group to tailor health education programmes. This is because some of the health concern beliefs and codes of behaviour are part of the culture within ethnic minority groups (Patel *et al*., 2015). They further argue that health psychology needs to move beyond the idea of individual and rather the socio-cultural impact on health behaviour should be considered.

1.12 Research Aims and Objectives

The aims and objectives of this study are outlined below and will be described further within relevant chapters.

i) Aims:

The aim of this project was to explore inter-generational understandings of attitudes towards lifestyle behaviour change among a South Asian population in the UK.

ii) Research questions:

This study addresses the following research questions:

What are the inter-generational in health perception and attitudes towards lifestyle behaviour change among a South Asian population in the UK?

What role does generation play and how important is it in determining lifestyle and behaviour change perceptions and attitudes?

What factors account for the continuity or discontinuity in the patterns of attitudes possessed by two generations within a South Asian group living in the UK?

iii) Objectives

- To identify knowledge and understanding of lifestyle behaviour change among South Asians living in the UK.

- To identify the relationship between various aspects of South Asians' belief system in the 'Diaspora' and modification of lifestyle behaviour. Identify gaps in current knowledge about generational factors and differences amongst UK migrant populations.

- To conduct a qualitative study to explore the impact of attitudes to lifestyle behaviour change among two generations of South Asian ethnic minority in the UK.

- To explore the inter-generational effects of cultural and religious factors on health perceptions among a South Asian community living in the UK.

- To explore the knowledge and perception of participants about lifestyle behavioural change.

- To explore the major cultural and religious barriers which play a role in shaping healthy lifestyles among the two generations.

- To explore and compare the patterns of attitudes towards health behaviour between two generations.

- To explore the factors that determine perpetuation of certain perspectives across generations amongst South Asians living in the UK.

- To explore the factors that account for continuity and discontinuity of health related attitudes possessed by two generations.

1.13 Constructivist grounded, theoretical location of the study

In order to engage with the lives of the participants from an ethnic minority group, grounded theory was considered appropriate to uncover the processes by which ethnic diversity related factors attributable to health-related problems could be identified. Racial or ethnic diversity should be incorporated in studies using grounded theory (GT) methodology (Green *et al*., 2007). Grounded theory methodology is a systematic approach in which a certain set of procedures are used to develop theories of psychosocial phenomena through a systematic interplay between empirical data and emerging theoretical constructs. Hence, it is widely used in social science and health research (Bryant and Charmaz, 2007; Schwandt, 2001). The use of ethnic and racial diversity in GT ensures theory development about health related phenomena underpinned by the background, experiences and perspectives of the people of colour (Green *et al.,* 2007). A review revealed that researchers should consider the merits of incorporating ethnical focus in the grounded theory study as it aims to uncover the influence of diversity related factors influencing health related experiences (Drauker *et al*., 2014; Davies *et al.*, 2009). The current study aims to present explanatory and in-depth accounts of the

health beliefs and the perceptual determinants of lifestyle behavioural change among two generations of UK South Asians group. Therefore, the emergent and inductive nature of GT research is best suited to provide the best answers to the research question. Ground theory also seeks to use a racial/ethnic lens to generate original insights and develop a theory, and also provides an understanding of the cognitive landscape of the society identifying those factors related to racial/ethnic diversity influencing health related problems (Green *et al*., 2007). The GT approach does not make predetermined assumptions, it is a flexible method to collect and analyse qualitative data to construct theories that are grounded in the data. In constructivist grounded theory a researcher enters a world consisting of multiple individual realities to the extent they are able, and aims to achieve multiple views of it, ultimately constructing a theory through the interpretation of the studied phenomenon (Charmaz, 2006). For these reasons, constructivist grounded theory provides a relativist ontological position for this research project that sought to address the meanings of UK South Asian's lifestyle experiences and influencing factors on their health behaviour.

1.14 Thesis Formation and structure

This thesis is comprised of seven chapters, Chapter one, the introductory chapter aimed to provide an overview of the emerging issue, outlining the field and introduce concepts and terms. Chapter two, the literature review focusses on the health status and current health behaviour of UK South Asians and their attitudes towards healthy behaviour. The methods of the study are described in Chapter 3 and Findings are presented in Chapter 4. Chapter 5 contains the analysis and discussion. Chapter 6 provides a conclusion and key recommendations.

Chapter 2 Literature Review

2.1 Introduction

This chapter provides a critical discussion and summary of the research literature related to knowledge, attitudes and behaviour around a healthy lifestyle, specifically physical activity and diet among a South Asian population in the United Kingdom (U.K). The findings of the literature review identify barriers and facilitators to adopting a healthy lifestyle among SA living in the UK. Firstly, the chapter provides a rationale for the role of the literature review in grounded theory as it offers an insight into the current state of the art within the field of study. The literature review is significant because it introduces broader influences within the field of knowledge (Randolph, 2009). The purpose of this chapter is to explore how knowledge and attitudes affect the health behaviours of the SA ethnic minority group residing in the UK. An examination of the current literature related to the research topic provides a framework for better understanding of the issues impacting the health behaviours of SA's in the UK. It is important to consider the role of the literature review in grounded theory.

Secondly, there are some studies revealing South Asians' health beliefs and attitudes towards lifestyle risk factors. However, the existing literature does not distinguish between first and second generation SA migrants when exploring the attitudes and beliefs towards a healthy lifestyle. Understanding the differences of attitudes and health behaviour between two generations is important for the development, effectiveness and acceptability of future lifestyle interventions for the ethnic minority group in the UK (Lucas *et al.,* 2012). Ethnic minorities in England are reported to have consistent levels of fair or poor general health, and health inequalities remain unaffected despite changes in health behaviour. Hence, it is important to understand the progression or line of development across generations in terms of health behaviours that may have implications for public health policy (Smith *et* al., 2009). Drawing a comparison between the attitudes of two generations can give an overview of the patterns of changing behaviours towards a healthy lifestyle. More qualitative studies should be carried out to explore the beliefs and attitudes of South Asians living in the UK. There is a strong rationale to carry out this project to provide more insights to help understand the beliefs and attitudes of different South Asians living in the UK. It is important to explore not

only the attitudes of specific ethnic minorities but also the diversity of attitudes within the same ethnic group. It provides an opportunity to avoid stereotyping whereby it is assumed that all patients from the same ethnic group are all the same (Lucas et al., 2013).

2.2 The role of the Literature Review in a grounded theory study

A formal literature review and synthesis is normally delayed within inductive research designs (Charmaz,2006). Dick (2007) states that, grounded theory researchers are discouraged to conduct a thorough literature review so that the previous knowledge of a researcher, and evidence relevant to the area of study do not contaminate the developing theory; hence the theory generated from the gathered data is 'pure'. A literature search is usually the first stage of the research process to identify the knowledge gaps. It also enables a researcher to enhance understanding of the context of the area under research and to demonstrate the knowledge of the topic (McGhee *et al*., 2007; Dunne., 2011). However, it is acknowledged as a tension when ontological and epistemological underpinnings of the research require limitation to prevent previously conceptualised theories influencing emerging theory (Dunne, 2011; Elliot and Higgins, 2012).

Certainly, the issue of conducting a literature review has invoked a great debate between different schools of thought around grounded theory (Elliot and Higgins, 2012). Glaser and Strauss (1967) also advise researchers to delay the bulk of a literature review until the completion of analysis to avoid importing preconceived (a priori) ideas into their work. This approach does not encourage 'received Theory' which aims to see the data through the lens of earlier ideas. Glaser's (1992, 1998) stance on prior knowledge is somewhat moderate in a theoretical sensitivity context, Glaser (1978) advocates that grounded theorists should acquire prior knowledge of thematic codes to achieve theoretical sensitivity which renders subtleties of the relationships within the data. The engagement with the literature is conceded as a conflicting issue in grounded theory research; however, different approaches have addressed engagement with the literature. Strauss and Corbin (1990) discern literature as a methodological tool and they further state that early engagement with literature could help a researcher to identify important aspects of developing theory. Sensitisation through

engagement with literature could trigger a degree of theoretical sensitivity. This is also consistent with Blumer's (1969) viewpoint upon sensitising concepts in grounded theory. As it is argued that grounded theorists enter into the field of study with certain research concepts and interests that provide them with a plan to follow and helps to frame particular questions to ask about their topic.

Within the constructivist methodology, a researcher can enter the setting holding a neutral position which would not influence the process of theory development (Charmaz, 2006). A researcher's influence is inevitable in their interpretation of the phenomenon as meanings are constructed through perspectival inclinations. However, theoretical sensitivity could be acquired through reflexivity and can explicitly manifest the construction of meanings. According to Dunne (2011), introduction to literature prior to the study is not disputed as long as clear justification and positioning is provided. Furthermore, Charmaz (2006) advocates that the literature review should be used to gain a general awareness of the topic. Pre-existing concepts drawn from reviewing the literature should not affect the researcher's interpretation and thinking. Those sensitising concepts act as vantage points of departure for developing ideas and not for limiting them. "In short, sensitising concepts and disciplinary perspectives provide a place to start, not to end" (Charmaz, 2006; p17).

In contrast to a traditional deductive model of research, grounded theorists remain as open as possible to theoretical development allowing them to identify and develop ideas about processes that they define in their empirical data. They do not force or apply preconceived ideas directly onto their data, but rather they evaluate the fit between them (Charmaz, 2006). As such, and in line with the grounded theory method, this preparatory literature review sought to identify a range of issues encompassing the phenomenon of interest of the study which was to explore inter-generational attitudes of UK SA's towards health behaviours. This preliminary literature review provided guiding interests leading to sensitising concepts into the study which served as departure points for the development of ideas (Charamaz, 2006).

Literature was included in the subsequent chapters as a source of data as suggested by Glaser and Strauss (1967, p65), literature is considered to be a slice of data in grounded theory study. The previous research related to the topic and the relevant literature has been interwoven

into the findings of the study (Charmaz, 2006). The literature was used in the study throughout the grounded theory process, moreover; it was also used to explicate the findings, to identify relationships between current and previous findings and to develop further theoretical discussion. In addition, the literature review was used to demonstrate the extent of the contribution of current findings to new knowledge and how those findings fit in to or extend existing relevant literature (Charmaz, 2006).

2.3 Study identification and Selection

A 'snowball' approach was initially followed to identify literature relevant to the broad research topic. Literature was sourced and references within these works were also accessed. Bibliographic databases including PubMed, Medline and PsychINFO were accessed to search primary source materials. Key words used in the searches included South Asian, health, attitude, behaviour, lifestyle, diet, physical activity, sedentary behaviour, less active, migration. The area of focus related to this search was around behaviour towards healthy lifestyle changes in the SA population in the UK. The key search topics in relation to the health behaviours of this particular group were:

- Knowledge and attitudes about health and a healthy lifestyle
- Behaviour and knowledge about physical activity and diet
- Barriers and facilitators to adopting a healthier lifestyle

The search started with a general query on the main search topics using 'backward chaining' and 'forward chaining' which aimed to move backwards through the chain of reference list and following a chain of citation moving forward. This process led to the identification of primary research studies.

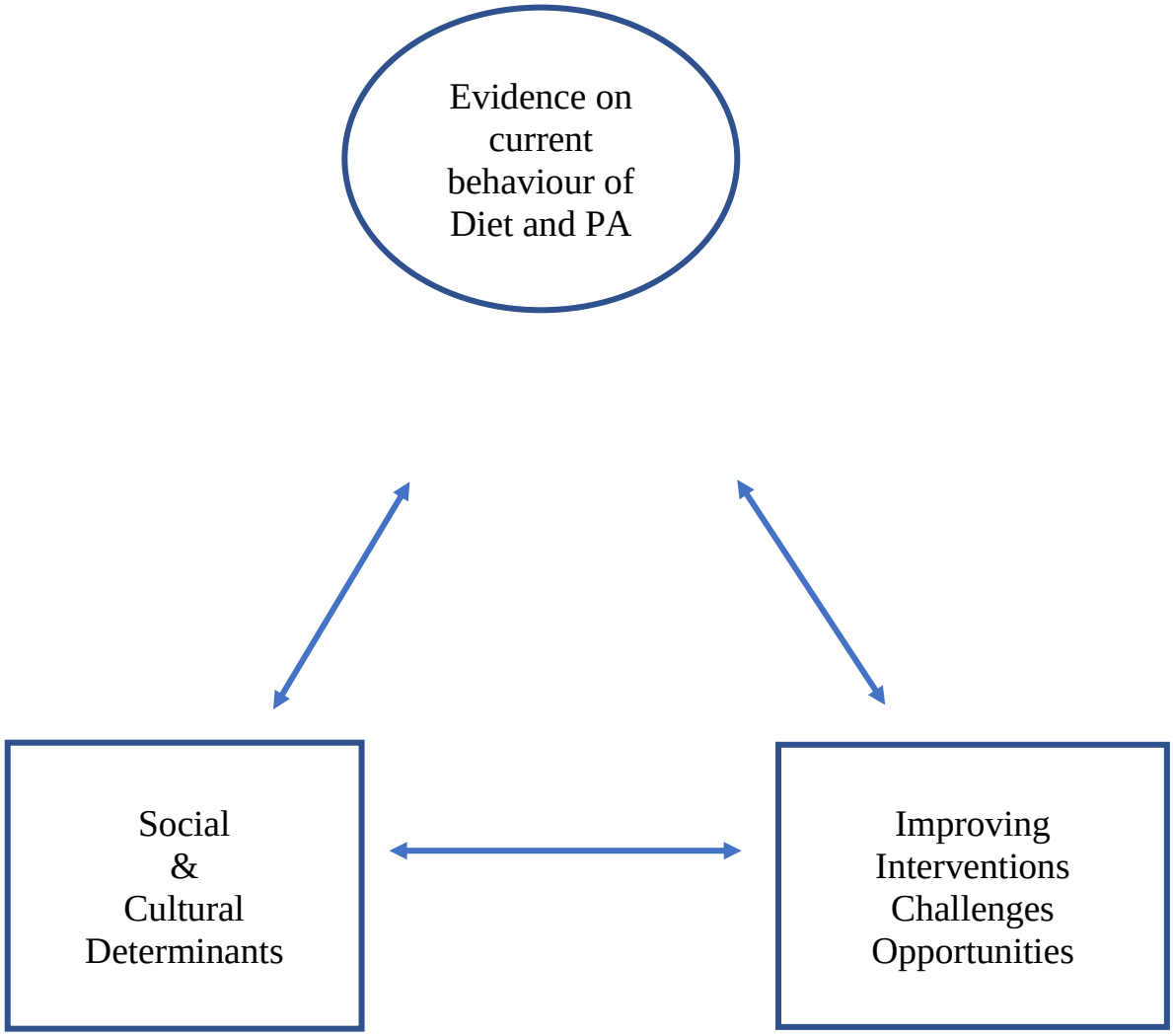

Fig 1: Process map (Literature Review)

2.4 Migration and lifestyle behaviour

The health status of migrants deteriorates overtime, but less is known about the health condition pre-and post-migration. Known changes among migrant groups include higher levels of smoking, eating high fat foods and lower levels of physical activity (Condon and McClean, 2016).

Lifestyle factors such as obesity have become a particular concern for public health and a study revealed being overweight and obesity is more common among migrant than among non-migrant children (Labree *et al.*, 2011). This is because migrants from low-income countries abandon their traditional dietary habits and adopt a westernised diet which is rich in energy. Another study (Ujcic-Voortman *et al.,* 2012), found higher levels of obesity among Turkish and Moroccan migrant groups than in the resident populations in several European countries. Findings from a study with South Asian and Italian migrants suggested that South Asian women had higher coronary risk due to greater consumption of atherogenic diets which are higher in fat and saturated fats than the general population (Anderson *et al*., 2005).

2.4.1 Migration and dietary changes

Immigrants from lower income countries comprise a higher proportion of the population in Europe compared to immigrants from higher income countries (Holmboe-Ottesen and Wandel, 2012). A mutual exchange of eating habits and ideas between the host population and immigrants can lead to changes in the dietary habits of immigrants. The food culture of the majority population can influence the immigrant's dietary habits introducing a wide spectrum of new food items in shops, restaurants and at cultural events (Holmboe-Ottesen and Wandel, 2012). Different theoretical frameworks such as assimilation and acculturation are used by social researchers to study the consumption experiences and changes in dietary behaviour of migrants once they move from their country of origin to a new host country. Assimilation is referred to as the changes that happen to the consumption experiences of immigrants after having lived in the new culture and environment for some time. Alba and Nee (1997) argued that assimilation is disappearance of differences between groups over time. However, assimilation is criticised for being "unidirectional". On the other hand,

acculturation is a complex process and the assumption behind acculturation is that it acknowledges the subsequent changes to groups when different groups from different cultures come into contact with each other (Padilla, 1980).

Immigrant groups usually bring their traditional dietary beliefs and practices to host countries, and attitudes related to food and nutrition are one component of cultural identity (Bhugra, 2004). Hence dietary change plays an important religious and cultural role in their lives and it is the latter that adapts to the new culture in immigrant groups (Helman, 1990). As discussed earlier, the health condition of migrants deteriorates with length of residence (Koya *et al*., 2007, Condon and McClean, 2016). This may be due to lifestyle changes in a new country which could have a negative effect on their health (Tremblay *et al*., 2005). Dietary change is complex and affected by a range of factors and situations related to country of origin, socioeconomic status, cultural factors and the situation in the host country. However, the main dietary trend reported in migrants is a substantial increase of energy and fat intake, a reduction in carbohydrates and a switch from whole grains to more refined sources of carbohydrates, resulting in lower intake of fibre (Holmboe-Ottesen and Wandel, 2012). It is evident that rather than genetic factors, dietary factors are likely to have a greater influence on a generation of insulin resistance and T2DM among South Asians (Misra *et al.,* 2008). Similarly, Bhopal (2002) and Chawdhary *et al.,* (2006) noted that people of South Asian origin (Indian, Pakistani, Bangladeshi and Sri-Lankan) have considerably earlier and higher morbidity and mortality from Coronary heart Disease and its complications.

Since the South Asian migrant group has higher prevalence rates of type 2 diabetes and CVD, it is an especially important population to target in the context of health promotion. An exploration of dietary change, knowledge and awareness of healthy nutrition may help understanding of cultural sensitivity for health promotions in order to prevent lifestyle diseases among the South Asian population (Lesser *et al.*, 2014).

It has been reported in previous studies that some ethnic minority groups are susceptible to becoming obese and are at a higher risk of contracting nutrition related diseases, hence the issue of changes in dietary habits after migration has become pertinent. These groups are in great need of professional advice and treatment, however their needs cannot be catered for

in an adequate manner due to insufficient knowledge of their cultural needs, diet and changes in diet after migration (Holmboe-Ottesen and Wandel, 2012).

Furthermore, changes in dietary habits among migrant groups in Western countries can lead to an increase in diet-related diseases like diabetes and it can cause major concern for public health policy makers. It is well documented that South Asian migrants living in western countries have a higher risk of developing type 2 diabetes than general population (Holmboe-Ottesen and Wandel, 2012). Some of the studies exploring this phenomenon argue that it could be related to the impact of the Westernised diet on South Asians and to the cultural change and adaptation of dietary habits. Traditional food plays a central role in dietary habits among the South Asian population in the UK (Bush *et al*., 1998). For example, some foods are perceived as having some medicinal properties, particularly bitter vegetables which were believed to counteract diabetes and others are perceived as 'being good' for health. Foods with bitter and aromatic properties are considered as having much medicinal value. Traditional food is an integral part of the complex cultural heritage system and it is used as a means of representing cultural identity among migrant communities (Pieroni *et al*., 2007).

The South Asian migrants living in European countries tend to exchange their 'accessory' food (which leads to a higher intake of fatty and energy-rich food) to the host country food and towards unhealthy diet patterns. The unhealthy choices of food also include the substitution of whole grains with refined sources of carbohydrates. Fruits and vegetables are noted to be consumed to a lesser extent and a decline is seen in consumption of 'complementary foods' such as meat and dairy products (Holmboe-Ottesen and Wandel, 2012).

Variation in dietary intake could provide important clues about why migrant groups share a higher risk of morbidity and mortality particularly when examined by age and migration status. Many younger migrants (second generation of former migrants) may adopt dietary practices from older migrants and younger groups could sustain high fruits and vegetables and lower proportion of fats (Landman and Cruikshank, 2001). Similarly, a study with South Asian migrants in Canada reported a positive dietary transition among this ethnic minority group after migration including an increase in fruit and vegetable consumption and a modification in cooking methods by increasing grilling food rather than frying. However, the

findings indicated an increase in consumption of convenience foods, sugar sweetened beverages, red meat and dining out. A culturally-sensitive approach was suggested to overcome the consumption of sugar-sweetened beverages and convenience food (Lesser *et al*, 2014).

The diets of migrant groups may vary significantly from the mainstream population (Garduño-Diaz *et al*., 2014). Eating patterns among South Asians living in the UK vary by generation, household and region. A dietary transition was reported by the literature studying South Asians whereby the increased consumption of convenience foods and decreased consumption of vegetable consumption led to a less healthy diet (Patel *et al.*, 2017). Exploring the food consumption of British Pakistani research participants, Patel *et al.* (2017) revealed important generational and gender differences through ethnographic observation and in-depth interviews. The research concluded that the first generation of British Pakistani consistently consumed their traditional food and presumably resistance was experienced due to certain patterns shaped by habit, behaviour and preferences. They were also not very keen to consume English food, however the younger generation was increasingly consuming English food outside the home whereas they ate traditional food while at home (Jamal, 1998).

Prediction of health behaviour or behaviour change requires careful consideration of the nature of the motivational factors that may influence people's health and behaviour; social and economic pressure can make it more complex (Michie *et al.,* 2014). Health behaviour is not conceptualised as an individual's practice in isolation from others but is a shared practice and acknowledges the relationship between individuals, groups and institutions (Kelly and Barker, 2016). "In human food choice, culture is almost certainly the predominant influence" Rozin (2006.pg29). Changes in cultural dietary practices appear to be a major challenge as revealed in a recent study (Cross-Bardell *et al.*, 2015) which found that food which is high in fat and sugar is considered very important for maintaining social relationships and cultural identity in South Asians.

2.5 Acceptability of Interventions among South Asians

Research has provided evidence that the South Asian population is prone to markedly higher morbidity and mortality from lifestyle disease and consequently, it contributes to immense suffering and societal burden. To address the personal and societal burden, primary care needs to prevent the development of the chronic disease or delay its onset in those communities that are at higher risk (Department of Health; East Midlands,2008). Since there are growing concerns about child and adult obesity, evidence is urgently needed to develop culturally sensitive interventions tailored to the needs of higher risk group
(National Clinical Guideline centre, 2014).

Interventions to promote physical activity and dietary change can promote healthy lifestyles and prevent or delay the onset of a range of chronic diseases among South Asian populations, who are often at higher risk of developing those diseases (Chapman *et al*., 2013). However, there is not sufficient evidence to make firm recommendations to design health promotion interventions, especially for enhancing physical activity and improving diet among ethnic minority groups (Liu *et al*., 2012). A wide range of risk factors are related to the higher rate of CVD among South Asians. There is a need to take appropriate initiatives which aim to change the health behaviour of 'at risk' populations and those actions need to be efficient and culturally sensitive to target those multiple risk factors (Bhopal,2000; Kooner,2004).

Theoretical frameworks, which are important to evaluate complex interventions, seem to be missing in the interventions designed in the previous studies among South Asian populations (Chapman *et al.*, 2013). Health interventions designed for a South Asian population identifies numerous factors which could be taken into account for a successful intervention which is culturally sensitive as highlighted by Hawthrone and Tomlinson (1997). Social factors outweigh the health considerations, as diabetes is socially stigmatised in South Asian communities and diabetic patients face difficulties in refusing food. Consequently, the food choices for diabetics could not be dictated publicly, it clearly demonstrates that family and community support play an essential role; the community needs to endeavour to overcome the stigma of illness. It is argued that non-professional and non-medical community link workers with time, information and language skills can be motivated and trained to give one-

to-one support to deliver standardised health education and information. Doing so in an informal and more opportunistic settings rather than organised settings appeared to be more practical to achieve health objectives (Mathews *et al.*, 2007). A more positive outcome could be generated by underpinning the social elements in the development of interventions as acceptability appeared to be higher in those programmes that were promoted and recruited by the local community resources and in informal settings, rather than more formal health care settings such as hospitals and clinics (William *et al*., 1999). An analysis of prior knowledge of food culture in migrant groups is widely recommended for any public health programme for the prevention of chronic disease. That information should be used to tailor the interventions which could be more effective if the cultural origin, values, attitudes, behaviours, feelings and preferences of that group are considered (Popovic-Lipovac and Strasser,2015).

Consultation with the target communities was highly recommended prior to intervention development or use, as it potentially improves its acceptability and sensitivity (Cross-Bardell, 2015). Discussions not only with the individuals but also with other community stakeholders were encouraged, as they may offer advantages for the improvement of interventions. For example, engaging faith centres such as mosques, temples and other religious activity centres could be helpful in this regard such as religious leaders could play a key role to motivate people in their weekly sermons (Cross-Bardell, 2015).

Hawthrone and Tomlinson (2004) concluded that health education initiatives are needed, and the educational levels of the participants should be taken into account when designing them. It is emphasised that a tailored group approach can potentially make the small but sustainable changes which make a lifetime of difference (Rush *et al*., 2007). Lower literacy rates and language issues can act as barrier to an intervention so the use of pictorial and visual aids might be helpful to overcome such barriers (Rush *et al*., 2007). It is eargued that an improved and detailed health education intervention is needed to help address the misunderstanding found among South Asians around knowledge of physical activity and its benefits (Horne *et al,*. 2012). Liu *et al.* (2012) argued that ethnic health inequalities widen since the evidence suggested decreased uptake of health promoting interventions among a South Asian population compared with a White population. Similarly, higher quality studies on South

Asian groups were linked to limited improvements in Body Mass Index (BMI) and no significant difference was found between the intervention and control groups. Lorenc *et al*. (2000) concluded that findings consistently suggest that upstream interventions are more likely to reduce ethnic inequalities than 'downstream interventions'. Downstream interventions refer to more focus on supporting individuals including primary interventions such as health information or behaviour change campaigns whereas upstream interventions are more population focussed and aim to develop policy to influence social/ethnic norms that create social and health inequalities. With regard to contemporary health promotion, Lucas *et al.* (2012) argued that they are based on Western behavioural models and assumptions of individualism and self-investment whilst having no cultural considerations for a South Asian group. Hence, more studies are needed to help understand the cultural needs of this particular group to improve the cultural acceptability of lifestyle advice.

In contrast, findings also suggest that some culturally appropriate interventions appeared to be effective in South Asians such as BEACHeS. Adab *et al. (*2014) reported that certain physical activities were culturally unacceptable for girls, however interventions which were culturally sensitive delivered in a normal school day, appeared to be effective (Brown *et al.*, 2015). Similarly, a United States (US) based successful lifestyle intervention (SAHELI) which was culturally tailored to reduce cardiovascular risks of coronary artery disease of South Asian immigrants found important factors contributing to its success including community settings, multilingual staff and culturally tailored experiential activities. Acceptability, salience and uptake can be increased by culturally adapting interventions, however, there is lack of clinical evidence of effectiveness or cost-effectiveness of those approaches as of yet (Liu *et al.,* 2012). This suggests that consideration of the cultural and traditional values of an ethnic minority as a general approach is important to develop a new intervention. They argued that it is worth seeing how the interventions are culturally adapted along with the theories and behavioural change techniques which were used to construct those interventions. Brown *et al.* (2015) concluded that there is evidence of culturally appropriate approaches to effective interventions in adults, and characteristics of those interventions could be transferred to develop effective interventions in children as well. However, the process evaluation of those interventions in Europe is limited (Bhopal *et al.,* 2014; Penn *et al.,* 2014). The current study

aims to address the gap by identifying social and behavioural contexts that may influence the acceptance of lifestyle interventions.

Significant research on knowledge, attitudes, behaviours and perceptions is required to develop an effective behaviour change intervention and to find out the differential effects of lifestyle interventions for South Asians compared with another ethnicities (Brown *et al.,* 2015). Innovative techniques and an action plan responsible for change is suggested to improve the effectiveness of lifestyle interventions (Michie and Abraham, 2004). In a study by Chapman *et al*. (2013) on evaluating the effectiveness of lifestyle interventions in South Asian population in a systematic review, it was suggested that interventions among a South Asian ethnic minority were well received; suggesting the potential of enhancing physical activity and promotion of dietary lifestyle changes is considerable. However, informed qualitative work is crucial among this ethnic minority group which is at a higher risk of developing chronic disease. Chapman *et al.* (2013) added that health promotion interventions need to incorporate a theoretical framework and target education and behavioural motivation. Brown *et al*., (2015) conducted a systematic review and meta-analysis to analyse diet and physical activity interventions to prevent obesity in South Asian children and adults, and they reported some cultural barriers influenced the effectiveness of the interventions.

More research is recommended to identify the differential effects of lifestyle interventions among South Asian ethnicity and other minority groups and it should report how the interventions are culturally adapted (Brown *et al.*, 2015). Similarly, Singh *et al*. (2012) noted that the health condition of a person in a South Asian community is best understood within their family and cultural context, therefore healthcare recommendations should be consistent with the family belief system, those recommendations that are not consistent with these factors are less likely to be followed otherwise.

Cross-Bardell *et al*. (2015) established qualitative insights in relation to the acceptability and feasibility of health promotion by the South Asian group at higher risk of chronic disease. A social approach appeared to have relative importance in the development of an intervention to facilitate engagement and motivation, and its delivery in local informal settings was highly recommended. Using a walking intervention rather than formal exercise and bilingual

community peer facilitators supported the achievement of a social approach to enhance engagement, motivation and behaviour change. Sociability and interaction were considered significant in feasibility and acceptability of an intervention for high risk South Asian ethnic minority group (Cross-Bardell *et al.,* 2015).

It is well documented that the development of policies and practice guidelines need to recognise and understand the relationship between ethnicity and aspects of an individual's identity. Failing to do so might result in interventions based on unreasonable and misguided assumptions. Low participation in cardiac rehabilitation classes among South Asian women could be suggestive of lack of interest in gaining health, an indication of lack of provision of single sex exercise facilities and lack of culturally relevant information. Having said that, it is crucial for health care professionals and practitioners to develop understanding and sensitivity in terms of knowledge and awareness of the cultural and religious beliefs of clients. The healthcare professionals can then apply that developed understanding to their appropriate practice. Lucas *et al.* (2013) argued that for any intervention to be successful in a certain group, it is important to understand the group's attitudes, lifestyles and beliefs. The health-related beliefs and attitudes of SA that might be attributable to the lower acceptance of interventions will be discussed in the discussion chapter.

2.6 Knowledge, Perceptions and attitudes about health and a healthy lifestyle

Many studies identified in the literature review highlighted the knowledge and general awareness of health and a healthy lifestyle in the South Asian ethnic minority group. Several concepts were established about 'health', for example in Greenhalgh *et al*'s (1998) study, large body size was viewed as an indicator of more health with thinness equalling less health. In another study, medium body size was considered healthy and underweight and obese body sizes were associated with 'weakness', those who were 'weak' were seen as susceptible to diseases and compromised in their day-to-day activities. Whereas physical fitness was considered crucial to enhance a person's ability to accomplish one's family duties (Grace *et al*., 2008).

Weight gain was considered natural, un-avoidable and was associated with childbirth and older age. It was a common perception that food and diet have nothing to do with illnesses, for example diabetes was not seen as connected to obesity. Similarly, a common perception about the cause of diabetes among Bangladeshi participants appeared to be absence of sweating due to the British cold weather and a lack of physical activity. It was believed that diabetes can be cured in hot climates for example if individuals return home to South Asian countries (Greenhalgh *et al.*, 1998). An increased body size was not always viewed as unhealthy but rather it was perceived as an indicator of good health (Ludwig *et al*., 2011).

Body image is indicative of social status and general health conditions within the South Asian culture. Netto *et al.* (2007) studied effective heart disease prevention among a South Asian group identifying an increased body image or being overweight was associated with health and prosperity, less weight was viewed as indicative of poor health and viewed as unappealing and destitution. In a study with Bangladeshi women, participants revealed that plump and paunchy women are regarded as more attractive and fertile. Being overweight was considered a sign of prosperity and affluence, it must be because of a cultural mindset as people living in Bangladesh are stuck in poverty (Khanam and Costarelli, 2008). Health related beliefs are among the factors which are held accountable for health inequalities. South Asian's beliefs such as associating large body size with health and not taking up exercise play roles in preventing heart disease (Bush *et al*., 2001). In contrast, a strong dislike for increased weight was shared by South Asian women due to negative effects on physical appearance (Sriskantharajah and Kai, 2006).

Data suggests higher ratios for coronary mortality in men and women of South Asian origin (Harding *et al*., 2008) hence increasing health inequalities (Netto *et al*., 2007; Gupta *et al.,* 2006). Similarly, a recent study found the predominance of CHD diagnoses were in South Asians and amplified the importance of incident CHD among this particular ethnic group, particularly those under the age of 60. The study emphasised the prioritisation of cardiovascular risk assessment in programmes like NHS health checks (George *et al*., 2017). It is argued that knowledge and awareness of disease prevention is crucial within the South Asian group. A very limited understanding is perceived between the lifestyle related contributory factors for illness, stress is however vastly perceived as a contributory factor for

heart diseases (Netto et *al*., 2007). Consistent with this view, Stone *et al*. (2005) argued that South Asian's demonstrated a lower level of knowledge about their disease (diabetes) and expressed limited motivation to attend educational sessions. The study found South Asian's basic understanding of diabetes, how it can cause complications and a general concept of the need to control 'sugar' levels was only demonstrated as a preventative measure. It indicates that appropriate and accessible knowledge and information could be the key to better understand healthy lifestyles and can address some misunderstood perceptions of health.

2.6.1 Knowledge of Healthy Eating and Disease Prevention

Previous research has identified that knowledge about healthy eating and disease prevention will vary both within and between communities, and uptake of health services will be strongly influenced by the knowledge and beliefs amongst minority ethnic groups (Rankin and Bhopal, 2001). Many studies have emphasised the effective transmission of health messages to minority groups and suggested a range of methods including liaising with minority ethnic agencies, open discussions in familiar settings, identifying areas of concern by disseminating translated material and conducting outreach work (Netto *et al.*, 2007).

Existing research offers a variety of perspectives on knowledge of disease prevention and lifestyle. For example, in Emadian, England and Thompson, (2017) study, it was stated that most South Asian men were aware of general dietary guidelines as they mentioned the benefits of increasing fruits and vegetables and reducing fats and sugar intake. Health education programmes are an important way to reduce risk factors in the target communities, however these programmes need to be flexible in terms of language and availability. The importance of understanding and conceptualising lay health beliefs is well established and it can influence health behaviour through the way in which a person understands health, illness and treatment. Health psychology needs to move beyond the idea of individuals and instead consider the impact of socio-cultural beliefs and belief systems on health behaviours (Patel *et al*., 2011).

It can be argued that knowledge of risk factors for heart disease and prevention is limited among the South Asian group (as it may be for other ethnicities) and lack of knowledge (or

different kinds of knowledge/knowing) can leads to misconceptions about the diseases and risk factors. A clear need for education of disease as well as risk factors within South Asian communities is suggested, as levels of the knowledge were found to be surprisingly low in these communities. This requirement is substantial as health promotion messages are not having the required impact at present (Rankin and Bhopal, 2001). Darr *et al.* (2008) found considerable variations in understanding CHD and its causes among South Asian patients. Particularly, Pakistani-Muslim individuals were least likely to report the cause of their CHD which partly indicated a language barrier as it has been suggested that heart patients of South Asian origin are disadvantaged for not having trained interpreters in the hospital and also for having reliance on written information which they might not read or understand properly (Tod *et al*. (2001) cited by Darr *et al.*(2008).

Other studies show that South Asian food is perceived as complex and meals involve more preparation, however English food is viewed as 'convenience food' (Wyke and Landman, 1997). Foods are not perceived by their nutritional content but in terms of their nourishing power, foods were classed as 'strong foods' and 'weak foods'. Energy or health giving foods are considered 'strong' foods such as white sugar, lamb, beef, ghee (clarified butter) and spices. Strong foods were considered essential for a healthy body and suitable for festive occasions but accountable for the worsening of illness (Greenhalgh *et al*., 1998). Khokhar *et al*'s (2013) findings showed that the dietary patterns, portion sizes and key sources of nutrients in South Asian's (living outside their home country) differ from the mainstream population. Due to traditional preparation and eating practices, sources of fats and energy were different to what was generally foreseen by the mainstream population, for example in Khokhar *et al's* (2013) study, cereal and vegetables were thought to be sources of fats and energy which is not generally anticipated among the mainstream population.

Good knowledge was demonstrated by South Asian participants about South Asian foods such as 'roti' which was considered detrimental to their blood glucose control, however limited dietary changes were reported by the participants (Lawton *et al*., 2008). Similar attitudes were exhibited in Greenhalgh's (1998) study in agreement of avoidance of strong foods such as solid fats and spicy food for people diagnosed with diabetes. A study focussed on Pakistani women (Ludwig *et al.,* 2011) explored eating patterns in first- and second-generation

participants and found more consumption of traditional food in the first generation than the second generation women. Furthermore, English food was generally perceived as processed food or 'fast food' however mixed views were found for the Pakistani traditional foods. Having used healthy ingredients such as garlic and ginger, Pakistani food was perceived as healthy but due to common use of cooking oil and fried foods it could be unhealthy at the same time (Ludwig *et al.*, 2011). Another key study with British Pakistanis stated that 'ethnic' foods have never been lost and are continually reproduced since the arrival of this minority group (Jamal, 1998). It further revealed, traditional meals were liked and consumed on a daily basis in both generations. However, it was noted that first generation British-Pakistanis were more inclined to consume Pakistani foods cooked in traditional way than the second generation. However, the second generation appeared to be more flexible to consume mainstream food as they found it convenient and a great opportunity to break the routine of eating traditional food all the time at home. It might be an attempt of acclimation to the mainstream culture and deviation from the norms could be an indication of 'individualism' (Jamal, 1998).

Traditional food was typically perceived as 'healthy' food among the South Asian community, especially food prepared by the recipes passed down to younger generations from their elders (Ludwig *et al.,* 2011). Not only were the traditional foods perceived as healthy but also tasty, spicy, original and filling whereas English food was considered bland and non-filling (Jamal, 1998). An association of indigestion with raw food, vegetables grown under-ground and baked, or grilled food was perceived among South Asians, those foods were considered unsuitable for children and elderly people. The cultural perception of indigestibility collides with the dietary guidelines for diabetic patients to bake or grill food (Greenhalgh *et al*., 1998).

2.6.2 Knowledge and Awareness of Physical activity and its importance for a healthy life

Studies have shown that regular physical activity, such as brisk walking, is associated with the reduction of cardiovascular diseases by up to 30-50 per cent, whilst also reducing the indices of obesity, diabetes and stroke (Wannamethee *et al.*, 2011). Increased levels of activity are associated with the reduction of higher levels of HDL cholesterol which protects from heart disease. Current guidelines are suggestive of 30 minutes of moderate physical activity on most of the days of the week. Evidence suggests that moderate physical activity is protective

against coronary heart disease (Press, Freestone and George, 2003) and type 2 diabetes (Bassuk and Manson, 2005) and both are important health problems among the South Asian ethnic group (Gholap *et al,* 2010). Lower levels of activity could contribute to the increased risk of cardio-vascular diseases, obesity and insulin resistance among the South Asian group in the UK (Fischbacher, Hunt and Alexander, 2004).

Evidence above suggests that the South Asian population living in the UK have been found to be more susceptible to non-communicable diseases due to lifestyle changes. In Europe, the adoption of a new culture often leads to sedentary lifestyles, unhealthy diets and habits with increased calorie intake. As discussed above, inactivity levels amongst Pakistanis, Indians and Bangladeshis are higher when compared to the general UK population. These lifestyle changes expose the UK South Asians to non-communicable disease risk factors. Furthermore, cultural perceptions of risk factors vary in different communities causing health misconceptions (Davies *et al*., 2011). Nevertheless, lifestyle factors such as smoking, diet and less physical activity are key role players in the aetiology of heart diseases. The South Asians appeared to be having higher glucose, insulin concentrations and increased prevalence of diabetes compared to the general population in the UK. Diet is considered very important in the development of heart diseases and studies based upon daily food diaries report that UK South Asians have higher intakes of polyunsaturated fats, carbohydrates and lower total saturated fat intakes compared to Europeans (Holmboe-Ottesen and Wandel, 2012).
Physical inactivity is another important risk factor which is well established in relation to cardiovascular diseases. Regular physical activity has direct, positive effects on the cardiovascular and respiratory systems. A study revealed that South Asians are generally less active in terms of lifestyle activities and sports than Europeans (Misra and Khurana, 2011). Different attitudes and less knowledge account for South Asians being the least active among other minority groups in the UK (Patel, Philip-Caesar and Boutin-Foster, 2012). The economic position of South Asian families is an important factor related to the social context and socio-economic status is also associated with cardiovascular diseases and other health states of South Asians living in the UK.

As discussed, earlier evidence from several studies suggest that South Asian men and women share the lowest participation rates in the UK (Dhawan and Bray, 1997). A common

perception among older South Asians suggests that it was too late for them to participate in healthy activities and change their lifestyle (Farooqi *et al*., 2000). Fatalistic beliefs were also indicated in Darr *et al*'s (2007) study and family history was reported as a common causal attribution of CHD. Heart disease was contextualised in relation to their religious beliefs holding the notion that it was not the individual who was responsible for the condition but it was God's will, whereas individual responsibility is a more common mainstream ideology in the UK (McClean, 2005). Although less self-control was discussed in relation to the onset of health conditions, a strong will was expressed to bring healthy changes in order to maintain good health before death (Darr *et al.*, 2007). Mixed beliefs regarding physical activity were reported in the literature revealing misconceptions of ill-health and injury associated with being physically active among Indian and Pakistani origin individuals who had migrated to the UK. It was perceived by elderly South Asians that intense exercise was unnecessary for them due to their advancing age whereas it was preferable to be keeping themselves mobile and active (Darr *et al.*, 2007). Farooqi *et al*. (2000) further highlighted the diversity of attitudes and there is a danger of stereotyping which assumes that everyone from a particular ethnic group were the same.

Bangladeshi individuals appeared to have the lowest levels of physical activity whilst Indians had the highest (Fischbacher, Hunt and Alexander, 2004). A limited understanding of exercise in the context of health might be a contributory factor as argued by Greenhalgh *et al*. (1998), whereby exercise was viewed as a cause of exacerbating illness or physical weakness. It is in accordance with Johnson's (2000) study exploring low levels of understanding among Bangladeshi people and Pakistani women that physical activity could preserve health. Attendance to daily work and household responsibilities were perceived as pertinent physical activity and 'exercise' beyond work was viewed as a 'selfish activity' (Sriskantharajah and Kai, 2006). Similar views were found by Khanam and Costarelli (2007) whereby general household duties and chores were commonly considered a form of exercise. They also found that participants stated that extreme household work and the responsibilities of their children left no time for South Asian women to do exercise. South Asian people appeared to have low awareness of the recommended levels of physical activity for achieving health benefits (Smith *et al.,* 2018). Findings of a study with a UK Bangladeshi population found cultural rejection of formal regular activity due to modesty reasons. Walking appeared to be a widely accepted

form of exercise as it did not present any modesty challenges. 'Namaz' (a ritual prayer which Muslims offer five times a day) was generally referred to as 'exercise' (Grace *et al*., 2008).

Increased heart rate and breathlessness were commonly perceived as ill-health rather than normal by-products of physical activity (Caperchione *et al*., 2009). Sriskantharajah and Kai (2006) noted that South Asian women had insufficient knowledge and guidance from health professionals who were thought to be key informants. South Asian women diagnosed with heart disease communicated a perceived harm of threshold limits, where they believed physical activity beyond their own 'body limit' may lead to deterioration of their health condition as a result. Household work and physical activity were usually limited with the onset of physical symptoms such as breathlessness, body pain and fatigue, during activity (Sriskantharajah and Kai, 2006).

Yates *et al*, (2010) state that South Asian's are typically fatalistic about ill health and perceive lifestyle factors as extraneous, therefore to the cultural identity of South Asian communities' physical activity is an alien concept. Furthermore, Caperchione *et al*. (2009) also revealed that South Asians may view physical activity as unhealthy and likely to aggravate illness. Horne *et al* (2013), had similar findings from their study, stating that intrapersonal factors are attributable to restriction of the physical activity among South Asians living in the UK. A range of medical conditions and ongoing health problems were considered a barrier to physical activity. Fear of increasing symptoms and the perceived likelihood to exacerbate illness placed restrictions on undertaking physical activity leading to a more sedentary lifestyle among UK South Asians.

Rai and Finch (1997) compared generational differences in attitudes between those under 30 years old and born in the UK and those who were older, in a study of Black and South Asian ethnic groups. They noted that second-generation individuals shared different beliefs to the older generation and to some extent, media played a key role in shaping the second generation's health beliefs. Rai and Finch (1997) also mention that spending early life in the UK is attributable to the differences between the younger and older generation who were born and brought up in their native countries. Bhatnagar *et al*'s (2015) findings from a systematic review suggested limited evidence of differences in the prevalence of physical

activity between the first and second generation. An important finding from Bhatnagar (2015) indicated that non-ethnic factors such as neighbourhood and school environment also affect the physical activity of South Asian children.

On the contrary, a great deal of knowledge is indicated about physical activity, and the physical and mental health benefits related to these activities (Jepson *et al*., 2012). Likewise, physical activity is viewed as important for mental and physical well-being as well as a good way to control weight (Grace *et al.*, 2008). Farooqi *et al.* (2000) advocate that South Asian's have sufficient knowledge of health benefits related to exercise however exercise is perceived as a formal activity rather than a lifestyle. A brief indication of changing attitudes in the younger generation has also been demonstrated.

2.7. Barriers to healthy lifestyle choices

A change in lifestyle can be challenged by structural barriers, due to the nature of their trade (long working hours) as well as females' caring responsibilities and the notion of 'family comes first' which limits their opportunities to adopt a healthy lifestyle (Netto *et al*., 2006). Certain obstacles such as busy social lives, domestic responsibilities and caring for relatives were cited as barriers to engaging in healthy activities. It appeared to be a common perception among the UK South Asian population that it is time consuming to live a healthy life (Eastwood *et al*., 2013). Lack of motivation and laziness were also identified as persistent barriers attributable to not participating in healthy activities (Netto *et al*., 2006). Discussing the challenges to adopt a healthy lifestyle, Eastwood *et al*. (2013) indicated that lack of education and awareness about disease was the key issue in lifestyle changes among the Bangladeshi community.

Family is a key source of social support for South Asians which can provide assistance with diet management especially in terms of diabetes care. Therefore, people with a lack of family support struggle to cope. However, family can also be obstructive at times when managing diabetes because of the social beliefs that are inconsistent with healthcare recommendations (Singh *et al*., 2012). Smith *et al.* (2018) discussed the role of South Asian family in children's physical activity, and they argued that low levels of independence were given to the children to go out and participate in physical activity by the South Asian parents and they did not

appear to be a role model for their children. This suggests a low level of support is provided by South Asian parents to their children whereas it is evident that parental support is a key facilitator of active lifestyle behaviour (Moore *et al.,* 1991).

Family life is central within Pakistani Muslim culture and the duty of looking after the household often took precedence over motivation and opportunities to address weight gain (Ludwig *et al*., 2010). South Asian Muslim women in particular seem to be facing considerably bigger challenges regarding their overall well-being. The literature suggests significant barriers to South Asian Muslim women participating in exercise. According to Carroll, Ali and Azam, (2002) South Asian Muslim women demonstrate increased awareness of the benefits of the exercise however they belong to a community that do not have a culture of exercise in the Western sense of the word. Childcare seems to be a major responsibility that has increased demands on their time as such determining their priorities. It is important to identify different contextual contributors to unhealthy lifestyle behaviour such as family structure, and social and religious practices as they can influence cooking practices and physical activities (Pallen *et al*., 2012). Physical activity behaviour is influenced by engagement in daily religious activities in the mosque (place of worship) among South Asian Muslim communities. Children are required to spend a significant amount of time after school in mosques for religious learning which has implications for physical activity and food behaviours limiting the time for food preparation for mothers and limiting after school physical activities for children (Pallen *et al.*, 2012).

South Asian Muslim women commonly have limited disposable income that restricts their participation in exercise and certain leisure activities (Carroll *et al.*, 2002). Less available time due to household and childcare responsibilities was a consistent and major reason for less activity given by ethnic minority people. Johnson (2000) states that Pakistani and Bangladeshi women are more likely to plead those responsibilities. However, men less explicitly mention childcare responsibilities (Johnson, 2000).

A varied judgment was articulated in different studies regarding communication as a barrier to making healthy changes among UK South Asians. Carroll *et al*. (2002) states that South Asian women being unable to read and write English and, in some cases, their own language,

constitutes communication difficulties forcing their family and friends to act as interpreters. It causes high reliance on others and reduction in confidence to take up activities. Similarly, Farooqi *et al* (2001) identify language as a barrier to accessing health services. However, Johnson (2000) argues that language was rarely mentioned as a barrier to participating in healthy activities among ethnic minority groups.

Many UK South Asian communities have increased unemployment and are living within deprived areas of cities. In such circumstances, the cost of exercising and leisure activities becomes a lower priority in the household, acting as a significant barrier for frequent and long-term adherence to a healthy lifestyle (Carroll *et al.*, 2002). Johnson's (2000) findings are in line with Carroll *et al.* (2002), suggesting a need for the recognition of significant barriers including time, cost and awareness about availability of facilities which can account for lack of participation in physical activities among South Asians living in the UK.

Another commonly reported barrier was climate change which may also act as a barrier to physical activity, significantly affecting migrants who arrived from warm countries to those with extremely cold weather (Caperchione *et al*., 2012). Similarly, Smith *et al.* (2018) outlined climate and access as situational barriers to physical activity. South Asian parents commented that poor weather conditions hinder children's physical activities and limited access to the parks and activity centres due to weather was considered a significant barrier preventing physical activity among South Asian children.

2.7.1 Social and Cultural Constraints

A socioecological framework offers a reciprocal framework interaction of individual behaviours and the environment in the development of obesity (Willows, Hanley and Delormier, 2012). It examines the interrelationships between an individual's personal dimensions and multiple components of an individual's life context (Willows, Hanley and Delormier, 2012). A socioecological framework helps to develop understanding of whether motives or barriers are at an individual, social or neighbourhood level. Once the level is established, the area requiring intervention can be understood and targeted.

Attitudes and behaviours concerning diet (and physical activity) are shaped by the culture with multi-dimensional differences including language. This increases the challenge of delivering appropriate interventions (Cross-Bardell *et al.*, 2015). Insufficient evidence has been found to make appropriate recommendations around adapting health interventions to improve diet and physical activity (Cross-Bardell *et al*., 2015).

Though studies have reported some Asian cultural and religious barriers, there is indication of a change in attitudes towards commonly reported barriers to physical activity among the younger and second-generation South Asians. Factors other than ethnic background are found to be affecting the physical activity of South Asian children (Bhatnagar, Shaw and Foster, 2015). The South Asian community have great pride in holding onto the unique customs which they brought with them from their countries of origin. Food with its unique qualities plays a fundamental role in South Asian culture with a blend of essential ingredients like oil and spices. The fundamental role of food in the South Asian culture affects South Asian's attitudes towards dietary modification (Patel *et al.*, 2011). Most South Asian men perceive traditional South Asian food as unhealthy and they believe that the effect of a South Asian background on their dietary habits is substantial. Long term habits of being accustomed to eating traditional South Asian food is considered a barrier to change (Emadian *et al.,* 2017). Studies have highlighted the need for prior qualitative research with targeted communities to gain insights to help improve the relevance and acceptability of the interventions (Cross-Bardell *et al*., 2015).

In contrast Patel *et al.* (2011), highlighted that many South Asians hold the belief that a traditional South Asian diet cannot be unhealthy since this diet has been passed down for generations and their ancestors did not struggle with heart diseases. Sociocultural factors should be taken into consideration while developing interventions targeting lifestyle changes in high-risk South Asian migrant population because migration is associated with the social determinants and risk factors of lifestyle diseases for UK South Asians (Davies *et al.*, 2011).

2.7.2 Barriers specific to healthy eating

Dietary data among UK South Asians suggests regular consumption of high fat foods such as meat and dairy products (William *et al.,* 1994). However, there were substantial differences between Muslim and non-Muslim groups. The former appeared to be consuming more meat and higher rates of CHD among Muslim South Asians are attributable to specific dietary factors (William *et al*., 1994). Traditionally South Asian diets are low in meat, fish and dairy products and high in carbohydrates, however, dietary patterns vary by generation, country, religion and region (Wyke and Landman, 1997; William *et al.,* 1994). Despite this, a dietary shift has been observed following migration, with a decrease in fruits and vegetables, and increased consumption of convenience foods which lead to an unhealthy diet. Reconciling advice on lifestyle behaviour with the cultural practices becomes challenging for South Asians, particularly with regard to the dietary change (Patel, Phillips-Caesar and Boutin-Foster, 2012).

Lack of motivation towards healthy eating was considered a barrier by South Asian men (Emadian *et al.,* 2017). Older South Asian migrants in the UK are less likely to change their dietary habits and tend to follow their traditional diets and dietary patterns as compared to younger migrants. Willows, Hanley and Delormier (2012) found that older South Asian migrants were unwilling to adopt English food compared to the second generation. The dietary needs of two generations in the South Asian migrant group are likely to vary. Leung and Stanner (2011) revealed that the younger generation of the South Asian migrant group considered itself culturally torn between the ideas of their elders and those of their peers from the mainstream population. As a result, the younger generation of the migrant group are most likely to adopt the dietary habits of the mainstream population for reasons including lack of time and cooking skills to cook traditional recipes. The younger generation also tend to adopt English food to conform to the British culture and to reflect independence from their parents (Leung and Stanner, 2011). Leung and Stanner (2011) recognise that there are a range of factors which might affect the food choices of minority ethnic groups in the UK, such as socioeconomic status, religious beliefs, cooking skills, food availability and access, knowledge and awareness of healthy food.

When designing health and nutrition interventions, it is important to understand the different factors influencing the dietary habits of minority ethnic groups. According to Palmer and Kenway (2007) most ethnic minorities live in low-income households with a higher rate of unemployment in some groups, mostly relying on social security benefits. Low income may restrict and limit their food choices to the cheaper options. Lip *et al*. (1996) noted that South Asians from a lower social class tend to buy food rich in fat. Another factor could be access and availability of traditional food, as it is not widely available in every superstore. Traditional food is often expensive as it is imported from different parts of the world. Dietary laws are set out for the acceptance or non-acceptance of the food by different religious beliefs. Some strong traditional beliefs also have a greater impact on the acceptance of food selection in ethnic minority groups (Leung and Stanner, 2011). Similar views were shared in a study with Bangladeshi participants which partly explored generational differences of practical constraints to healthy lifestyle choices including dietary choices among the second generation. Heavy reliance on fast food was reported among second generation Bangladeshi participants due to its availability and affordability whereas traditional fruits and vegetables were too expensive to consume. However, the first generation was less familiar with these cheaper and more affordable dietary choices (Grace *et al.*, 2008). Netto *et al.* (2006) suggest cultural attitudes, community norms and socio-cultural circumstances act as a barrier to changing lifestyles in at-risk communities, they emphasise the importance of addressing these barriers at individual, community and social levels to inform health education programming and health policy making. Failing to focus attention on these factors might limit efforts to reduce CHD in 'high-risk' groups.

Although South Asian people have been living in the UK for decades, their dietary patterns are hugely influenced by their cultural and social practices. An uncertainty and dissatisfaction due to a clash with a patient's personal dietary preferences was demonstrated regarding dietary advice received from health professionals, a qualitative study with diabetic patients revealed (Singh *et al*., 2012). A significant barrier to positive lifestyle changes in the South Asian group in the UK is a complex value hierarchy. Dietary change and physical activity is accepted as healthy however social norms of hospitality and modesty required by religion were seen as more important than healthy changes (Grace *et al*., 2008). Offering and accepting traditional food within the strong South Asian hospitality culture acts as specific

barrier to control diabetes within a South Asian group diagnosed with diabetes (Stone *et al*., 2005).

Food has an important social role in South Asian culture and is key to hospitality Fleming et al (2008). Eating traditional food is central for the social and cultural lives of South Asians (Cross-Bardell *et al.,* 2015). Cultural attitudes on what makes food 'presentable' and 'tasty' are interlinked with unhealthy cooking practices such as the high use fats. Healthy dietary change was confronted by those long-established unhealthy eating habits (Netto *et al*., 2006). Singh *et al*. (2012) noted that the hardest part of living for those diagnosed with diabetes was adhering to the recommended diet due to social and cultural pressure from within their community. Diet and treatment regimens were reported to be compromised on many occasions in adherence with the community's social decorum and to avoid social stigma regarding their health condition.

Communal eating of traditional food is central to South Asian's social lives. A study found that each household member has influence over food choices for everyone which makes changes difficult to implement (Bush *et al.*, 1998). Food is vital for celebrating social events and celebratory meals have social importance in the South Asian culture. To bring changes in food practice is challenged by cooking for guests on these occasions (Ludwig *et al*., 2011). Since traditional food is central, it affirms the importance of the hospitable meal; considerations of reputation, status and rules of respect for guests are strongly linked with hospitality in South Asian culture (Bush *et al*., 1998). Serving food with less oil or spices is referred to as inhospitable and socially un-acceptable (Grace *et al.,* 2008). Lawton *et al.* (2008) states that dietary changes were compromised by South Asian's emotive accounts of traditional food consumed in family and community meals and religious events. Failing to partake in commensality with family members and community members may be considered offensive. Social relationships may have a great effect on diet as food choices and people's decisions about what to eat can be affected by social influences. Special cultural gatherings and events have social dimensions and dietary behaviour could be altered by the social pressure (Fleming, Carter and Pettigrew, 2008). In South Asian communities, health behaviour can be explained through specific cultural contextual factors. In extended South Asian families, the older family members (who are usually first-generation migrants) commonly have authority

to influence diets. Older family members may have come from a different environment where food is not abundant, holding a perception of being 'fat' as healthy and food being lavished on children as a sign of affection (Pallan *et al*., 2012). Similarly, social and cultural factors inhibiting lifestyle change were explored by Eastwood *et al*. (2013). Family life in South Asian culture was believed to be attributable to food choices, cooking in a healthy way (with lower fats) and was challenged by the older generation family members who preferred cooking in conventional manner. A stigma attached to the health issues and illnesses was reported in a study with South Asian diabetic patients, where a social disapproval was associated with diabetes as it was considered a sign of physical inadequacy. Disclosure of diabetes to family or community members was not encouraged and this social pressure makes diet management even harder to manage diabetes (Singh *et al*., 2012).

Hospitality and family celebrations play an essential role in South Asian's social life (Bush et *al*., 1998) and seem to have a significant impact on British-born (non-migrant) South Asians. This particular impact is likely to be accountable for the similarities in health behaviour between the two South Asian groups (Migrant and British born) and a relatively large number of differences between British born south Asians and the general population (Anderson *et al*., 2005).

South Asian's being a close-knit community demands participation of family and friends in social events, commonly weddings, that confront with their dietary change (Netto *et al*., 2006). In another study of Bangladeshi women with obesity issues reported employing healthy cooking practices for themselves. Following their General Practitioner's (GP's) suggestions however, they did not make any changes in the way they cook for the rest of the family. (Khanam and Costarelli, 2007). On the other hand, a study with British Bangladeshis found many health professionals were reluctant to discuss lifestyle changes in clinical settings due to the influence of the assumption that they perceived Bangladeshis as fatalistic and were hence disinclined to educate about diabetes prevention (Grace *et al*., 2008).

2.7.3 Barriers to Physical Activity

All South Asian groups appear to be less active than the white population and South Asians were particularly unsure of the amount of physical activity needed to achieve health benefits (Patel *et al*., 2016). Lower activity levels are reported among South Asians. Studies have found the majority of the barriers were situated at all levels of the socioeconomic model including Asian cultural factors, school facilities, neighbourhood environment and the cost of physical activities (Bhatnagar, Shaw and Foster, 2015). Rai and Finch (1997) identified lack of motivation as a main factor associated with the low levels of activity among this ethnic community. High levels of stress were also given as a main reason for lack of motivation in this minority group that left them with a feeling of not doing anything. The sources of stress included widespread poverty in this community, and racism (Modood *et al,* 1997).

Lack of time appeared to be the most common barrier to increasing activity among a South Asian population with difficulties keeping a balance between home and work responsibilities, especially long working hours. Child-care responsibilities and the burden of domestic duties were widely cited reasons for not undertaking physical activities and this might be the main cause for less motivation and willingness among this ethnic minority group (Rai and Finch, 1997).

Promotion of physical activity, particularly in women, poses a challenge related to religious modesty, mixed sex activities and fear of going out alone. Disapproval from the family or partner is the main reason for not participating in physical activity. South Asians born in the UK appear to be more active suggesting that future generations of South Asians born in the UK may increase their levels of exercise (Zaman and Jemni, 2011). Similarly, Lawton *et al*. (2006) concluded that women were expected to spend most of their time looking after their immediate and extended families in South Asian communities, and some reported religious factors which hindered physical activity. For example De Knop *et al.* (1996) noted that female participation in physical activity was prohibited in the Muslim faith and many Muslim faith individuals presented the interpretation of Islamic doctrine, however some others allow participation provided there is no conflict with their family responsibilities and modesty norms. Women are allowed to engage in physical activity programmes only if they fulfil the

requirements such as to not be seen by men and to be dressed appropriately (Lawton *et al*., 2006). The findings of a narrative review concluded that barriers to physical activity related to South Asian women were mainly expectations of women to remain in the home, fear for personal safety, lack of women-only venues for exercise and concerns over the clothing required for the exercise (Patel *et al*., 2016).

Concerns over modesty and feelings of discomfort were expressed for mixed-sex activities provided at sports and leisure centres by women from all religions. These concerns were more related to being uncomfortable rather than their faith (Sriskantharajah and Kai, 2006). Similarly, religion was reported as a barrier in most of the studies carried out among South Asians, however a study reported that religion and spirituality had a positive impact on health behaviour as prayer and connection with God was seen as a source of support and healing power (Singh *et al*., 2012).

Islamic beliefs are often misinterpreted and regarded as a barricade for Muslim women preventing them from exercising. Islam does not forbid women from exercising however it advocates modesty, compliance of specific norms and maintenance of Islamic dress code (Carroll *et a*l., 2002). Islam promotes modesty of women and supports women carrying out activities with appropriately covered up dressing and in a female-only environment as Islam discourages mixed gatherings of males and females. Modesty is however regarded as a deterring factor for both men and women in South Asian communities (Johnson, 2000). Similarly, religious beliefs about gender segregation and modesty concerns were regarded as barriers to attending Physical Activity groups among South Asian Muslim women (Horne *et al.*, 2013). Muslim women who do exercise prefer separate shower and changing cubicles relating to safety issues that might prevent them attending those activity centres in some cases (Carrolle *et al*., 2002). Likewise, religious festivals and practices of some groups such as fasting or observance of prayers also presented a barrier to maintain a routine and could conflict with scheduled activities (Horne *et al*., 2013).

Fatalism has been recognised as a common cultural and religious barrier to physical activity in the South Asian ethnic minority group in the UK. Lawton *et al*. (2006) reported that it was a common belief among UK South Asian Muslims that physical activity could not help to

reduce the risk of disease or death as their fate was predetermined, and destiny was decreed in advance. This fatalistic notion of health, illness and death acted as a barrier to engaging in a healthy lifestyle.

Lack of social acceptance of sports as an exercise being associated with 'Western exercise' deterred South Asian women and thus daily work was perceived as a culturally appropriate physical activity (Sriskantharajah and Kai, 2006). Amesty (2003) found that the implications of migration such as departing to a new country, separation from family and friends and losing social support have significant effects on physical activity behaviour. Similarly, lack of social support and a feeling of isolation was communicated by Caperchione *et al.* (2012) as a barrier which can have a detrimental effect on the physical activity of culturally and linguistically diverse migrant groups to Western society.

Cultural and religious beliefs can affect the experience of up taking physical activity by reducing the levels of comfort and enjoyment. A number of factors identified are those that are less recognised within South Asian culture due to religious reasons, such as walking slow rather fast as it is acceptable for a Muslim woman to walk fast in public. Common reasons for disliking a gym include loud music being played and inappropriate visuals shown on the television screens which were culturally unacceptable (Khanam and Costarelli, 2007).

Different factors under social barriers such as a lack of familiarity with the wider community, language difficulties and fear of racism were cited in different studies (Caperchione, *et al.,* 2009; Yates *et al*., 2010). Johnson (2000) argues that fear of racial harassment should be addressed because it limits participation of ethnic minorities in healthy activities. Safety is a major concern and lack of it can act as a barrier to physical activity, it appeared to be another significant reason for many women not being active due to high crime rates and violence in low socio-economic neighbourhoods (Amesty, 2003).

A study with South Asians to explore parental perceptions of barriers and facilitators to their children's physical activity identified that physical activity has a relatively low level of importance among South Asian parents. They communicated a perception that importance should be given to academic pursuits; to give more time to academics in the quest of a good

job was thought to be a better use of time. This perception is suggestive of less encouragement being given to physical activity as it was not a priority among the South Asian ethnic group (Smith *et al.,* 2018). Lack of time and businesses were cited as major barriers to participation in physical activity, that is suggestive that other possible activities are given relative value compared to physical activity (Carroll *et al*., 2002). Similarly, Rai and Finch (1997) identified, exercise was given less priority as spare time was consumed to pursue leisure time activities. Personal preferences were given little significance compared to family obligations.

Language appeared to be another symbolic factor influencing physical activity participation of South Asians, studies found that South Asian women who were less fluent in spoken and written English were most likely to be less active in more formal exercise initiatives (Sriskantharajah and Kai, 2007; Khanam and Costarelli, 2008; Darr *et al.,* 2008). Carroll *et al*. (2002) argued that language could be an important factor preventing South Asian women from participating in exercise. The reason for South Asian women to be less active might be because of their limited ability to understand information written in English and they are less likely to ask for assistance due to lack of efficiency in written and spoken English. Grace *et al*. (2008) noted language as a significant barrier to South Asian's willingness to travel to unfamiliar settings beyond their neighbourhood limiting their access to the wider provision of food and exercise. Patel *et al*. (2016) argued that travelling by car was seen as a significant hinderance to engaging in an active life.

Some generational differences were expressed by Carroll *et al.* (2002) in a study with UK South Asian Muslim women, which revealed that exercise and its environment are alien concepts to those who migrated to Britain from South Asia however younger women who were brought up in the UK are more likely to be familiar with Western ideas of exercise.

2.7.4 Maintaining social Identity

Living in a different society appeared to be challenging and cause insecurity in terms of deconstruction of social identity in a South Asian group. It is therefore crucial to establish an identity as a family and community member living in the UK, and South Asian food

consumption has a pivotal role in this process (Lawton *et al*., 2008). Cultural and religious dimensions of ethnicity within the South Asian group appeared to be complex and influential on eating habits however in second generation Pakistani women the British identity may have been as dominant as their Pakistani identity (Ludwig *et al*., 2011). Sharing a traditional food which is commonly high in fat and sugar is considered important to maintain cultural identity and social relationships among the South Asian group. According to Vallianatos and Raine (2015), migrant people are more inclined to conserve their food habits to maintain their cultural identity, because there is a strong connection between food choices and identity. It appeared to be a major challenge of changing cultural dietary practices among this ethnic minority group (Cross-Bradell, 2015). Similarly, social events such as weekly lunch clubs are places for socialising, these places are perceived as a mode for preserving and re-creating the culture (Fleming *et al.,* 2008).

2.7.5 Gender Differences

Alongside lower levels of physical activity, it has been suggested that there are significant gender differences with regard to participation in physical activity in the UK South Asian group compared to the general UK population (Bhatnagar, Shaw and Foster, 2015; Health Education Authority; HEA,1994 cited by Fischbacher, Hunt and Alexander, 2004). Majority of South Asian women are engaged in sedentary activities and do not meet the meet the daily recommended level of physical activity (Babukus and Thompson, 2012). The findings of the HEA survey noted that women in all ethnic minorities have constraints to take part in physical activities however South Asian women suffer additional cultural and religious barriers and they are least likely to participate in regular physical activity (Lip *et al.,* 1996; Verma and Derby, 1994). Lack of support from male family members hinders Bangladeshi women's participation and reduces the motivation to take part in physical activities. Men of the family usually do not like women going out on their own or during evening time for exercise or for a walk (Khanam and Costarelli, 2007). Men and women have different spheres of activity in South Asian culture, men have less household and childcare responsibilities, (Johnson, 1999) and women are much more likely to be entreated to carry out not only child care duties, (Williams *et al*., 1996) but also elderly care of older family members (Johnson, 1999). Majmudar *et al*. (1995) concluded that the South Asian cultural perspective of women as a 'home maker' and their family

engagements are factors that limit their opportunities to leave the house and undertake exercise.

Ludwig *et al.* (2011) stated that strong influence of family expectations and male dominance on food preparation, such as the amount of oil used in curries, was reported by Pakistani women. Male members of the South Asian ethnic minority hold responsibility for maintaining their cultural and traditional practices which constitute a challenge for Pakistani women to change food practices. The women in South Asian culture appeared to be strongly influenced by cultural traditions and family expectations with regard to food preparation and consumption that poses a barrier to healthy eating behaviour (Ludwig *et al*., 2011). On the contrary Fleming *et al*. (2008), discussed the gender roles within the South Asian community. The findings were suggestive of the notion that men's self-management practices were influenced by other family members. The situation was reflected by a respondent stated that his father would not take medication without his mother's badgering

2.6 Facilitators to change

In a study by Caperchione *et al*. (2009) culturally appropriate advice on diet and physical activity was deemed acceptable, indicating the importance of social influences upon behaviour change. It also acts as a facilitator for the active engagement of South Asians in healthy activities. Similarly, cultural-specific barriers and facilitators to lifestyle change were highlighted by Eastwood *et al*. (2013). Religious and community settings were found to be more advantageous than general practices (GP surgeries) for health promotion in the South Asian group, however Bangladeshi participants were inclined to personal lifestyle changes rather than taking part in group activities (Eastwood *et al.*, 2013). This notion of focussing on individual lifestyle change can act as a barrier for health promotion programmes. Penn *et al.*, (2014) suggested that physical activity opportunities provided in a socially supportive environment was appreciated and deemed acceptable among Pakistani women. Peer support from the South Asian community is much appreciated for motivation and the facilitation for lifestyle change. It denotes the importance of a social element for any activity. Furthermore, participation of family and friends in any health promotion provides motivational effects compared to advice from health professionals alone (Cross-bardell, 2015). It also contributes

to a potential positive impact on psychological well-being by reducing feelings of isolation and depression; with improved knowledge of healthy diet and physical activity Pakistani women can fulfil their perceived social role and responsibility by encouraging a healthy lifestyle within their families (Penn *et al*., 2014).

Since lack of support from peers and family was considered a significant barrier to engage in and maintain physical activity among South Asians, it denotes the importance of social support as a motivating factor (Horne *et al*., 2013). It is in agreement with Cross-Bardell's (2015) study that explored the positive experience of taking up walking as a health promotion activity with family and friends, from which it can be anticipated that interventions promoting walking are likely to be highly acceptable within the South Asian community. Social interaction and enjoyment appeared to be a key motivator for taking part in physical activity for both men and women among UK South Asians (Sriskantharajah and Kai, 2006). The idea of participating in group activities with friends was much appreciated and 'enjoyment' was associated with the physical activity when a social element was included (Jepson et al., 2012). A narrative review by Patel *et al*. (2016) revealed weight gain and desire to be healthy appeared to be a motivator for UK South Asians and in some instances diagnosis of type 2 diabetes encouraged them to engage in healthy behaviour. They also noted that 'safe' environments such as places of worship could be used to motivate South Asians to participate in physical activity (Patel et al., 2016).

Leadership roles could be a good source of motivation to promote physical activities among UK South Asians. Asian community centres and religious activity centres could play an effective role and encourage South Asian people towards a better and healthier life (Jepson *et al*. (2012). Similarly, another study with Bangladeshi participants with diabetes explored faith linked to individual's confidence and motivation to change behaviour as learning about faith was seen as a useful tool to convey preventive messages (Grace *et al.*, 2008).

External sources of encouragement such as community or religious leaders can be a great influence on lifestyle change as they can motivate members of the community to adhere to the religious beliefs including forbidding alcohol consumption, smoking and immoderate consumption of food (Eastwood *et al*., 2013). Religious leaders were seen as well trusted

sources of information and support. They showed interest to incorporate diabetes prevention messages in their teachings. Religious leaders could play a significant role for diabetes prevention through a mutual working partnership with health professionals to develop initiatives within the community (Grace *et al.*, 2008).

Since time constraints and cost appeared to be consistent barriers to adopting healthy activities especially exercise and physical activity, a more favourable approach was indicated suggesting provision of services and intervention delivery in informal rather than formal settings. A number of advantages were associated with the provision of services at their homes such as enhanced cultural access and engagement. It was also viewed more practical by saving time and cost (Cross-Bradell, 2015). The study also suggested the use of multilingual spoken content and delivery where bilingual community members can act as a facilitator to enhance engagement and motivation of South Asian communities at risk of chronic disease (Cross-Bradell, 2015).

A great deal of confidence and intrinsic motivation are important facilitators to make dietary changes (Emadian et al,2017). Emadian et al, (2017) discussed limited qualitative data that has been published exploring eating behaviours and dietary intake patterns. It is important to understand what factors influence dietary habits and what is included in South Asian's daily diet. Therefore, more qualitative research is needed to assess these behaviours to inform the development of effective and culturally appropriate interventions to change diet patterns among the South Asian group. (Emadian *et al*., 2017).

In contrast to others, Singh *et al.* (2012) noted that the extended family system in the South Asian community appeared to be supportive with regards to diet management for diabetic family members. A family support system was considered important for diabetes management and acts as a facilitator to adapt healthy behaviour, otherwise, it is commonly observed that diet management becomes a family issue instead of an individual's private matter in extended families in South Asian communities. In terms of facilitation, Chapman *et al.* (2013) identified factors contributing to engagement and acceptability of interventions. They indicated that the involvement of bilingual community link workers appeared to have a key role for the delivery and acceptability of interventions in those studies involving socially

deprived groups such as Pakistani and Bangladeshi communities who speak little or no English. The link workers were not only valued for their language skills but also for their cultural sensitivity and understanding, acknowledging the importance of established relationships to the acceptance of lifestyle interventions.

2.7 Emergence of health problems and decision making

In a study by Lawton *et al*. (2008) it was claimed that dietary changes were made following the diagnosis of diabetes. The South Asian participants with Type 2 Diabetes only managed to bring remedial changes to their traditional food consumption and methods of cooking. Women in the South Asian group appeared to be less motivated to address weight problems as this issue was perceived as less important. It was sensed that they should do something about it if it causes any problem such as body pain (Ludwig *et al*., 2010). Similarly, healthy lifestyle changes were made after the health checks and learning about personal health risk factors. An increase in exercise levels and modifications in diet were commonly reported, which indicates the belief of bringing change in behaviour as a result of perceived health risk (Eastwood *et al.,* 2013).

A related perspective was articulated in Greenhalgh *et al*'s, (1998) study with South Asians, that diabetic patients should adopt a different diet from the rest of the family. This notion suggests that making changes in lifestyle is contingent on the occurrence of the disease or a severe health condition. Darr *et al*. (2013) addressed a similar notion towards healthy dietary change among South Asian participants since they were diagnosed with CHD and they started eating South Asian dishes cooked in less oil, a compromise over the taste was demonstrated by them. However, some of them reported less willingness to change their dietary habits and preferred the taste. A number of participants reported a reduction of fried foods and using less fats in their dietary intake since being diagnosed with CHD, however they also admitted that this change was not acceptable for the rest of the family.

Health awareness through knowledge and personal experiences served as motivational factors for lifestyle change, for example the experience of seeing family members suffering from different health conditions acts as a source of motivation (Eastwood *et al.,* 2013).

Similarly, a study reported the desire of women diagnosed with heart problems to use physical activity to limit their health condition. Furthermore, maintenance of mobility and independence were prime motivational factors for being physical active. Fear of developing complications from their disease and having intensive symptoms were encouraging forces for partaking in exercise (Sriskantharajah and Kai, 2006). Similar results towards physical activity were found in a study of Bangladeshi women by Khanam and Costarelli (2007), where obesity was generally associated with genetics and no attempts were made to reduce the weight until advised by a GP, as reducing weight was not deemed important. This attributes to the fact that healthy lifestyle change is not considered important until a serious health issue occurs. This suggests that all decisions that UK South Asians engage in seem to be remedial changes rather than a lifestyle and current understanding of decision making followed by a health condition may require South Asians' perspectives to further inform this area.

2.8 Conclusion

This chapter presented an overview of the health behaviours of South Asians, a significantly large ethnic group living in the UK. As mentioned in the above section a number of factors such as cultural identity and preferences influence UK South Asian's engagement in lifestyle interventions. Moreover, there is no information about the cultural appropriateness of current interventions which are widely based on Western behavioural models (Lucas *et al*., 2012). The UK South Asian's cultural and traditional values and religious beliefs seem to reflect in the attitudes of South Asians towards healthy lifestyle change, that makes this particular group's healthcare needs different from the general population. In order for healthcare to appropriately meet the South Asian ethnic group's special needs, an understanding of this ethnic group's perspectives of health attitudes and behaviour is essential. This area of study deserves attention to address the differences of attitudes among two generations of South Asian groups living in the UK for acceptance and effectiveness of future lifestyle interventions. This study goes some way to addressing the gap by exploring SA's attitude towards health and to what extent intergenerational differences may impact the health-related behaviour.

CHAPTER 3 Methodology

3.1 Introduction

This chapter presents the overarching research design and outlines the methodological strategies and specific methods used within this study. The following section details the study design, drawing on the constructive grounded theory approach (Charmaz 2000, 2005, 2006) to collect, analyse and synthesise data, and provides a clear rationale for this methodological approach. The chapter also highlights the sources of data in the study, detailing the interviews with UK South Asian participants, alongside the data analysis process and considerations of ethical concerns and reflexivity.

3.2 Research Design

Research strategies begin with research design and involve a clear focus on the research question, as well as the strategies that are most effective to answer it. Furthermore, a research design provides a set of guidelines that connect theoretical and conceptual frameworks to strategies of inquiry, and methods for collecting empirical data. Importantly, research designs are underpinned by the philosophical approach of the researcher and involve the specific procedures of the enquiry (Creswell, 2014). Indeed, Creswell (2003) argues that three questions are central in any research design, and these questions will form the basis of the current chapter:

- What knowledge and theoretical perspective is being claimed by the researcher?
- What is the action plan of the inquiry?
- What methods of data collection and data analysis are being used?

3.3 Research paradigm and the process of social inquiry

Social scientists have retained implicit and explicit assumptions about the reality of the social world and how these realities can be investigated (Moses and Knutsen, 2019; Burrell and Morgan,1979). Each social researcher holds a particular stance about the nature of social reality and personal knowledge of the world, which shapes their thinking, beliefs and assumptions about the outer world, and these standpoints which guide thoughts about ourselves and the social world is called a paradigm (Schwandt, 2001).

A research paradigm consists of three theoretical positions around issues of ontology, epistemology and methodology (Guba and Lincoln, 1994). Moreover, it is clear that epistemological assumptions (what we can know, and the nature of the relationship between the researcher and the known) are guided by ontological assumptions (what is out there, and what is the nature of reality). Epistemological positions largely determine the choice of methodology in any research design. Consequently, it can be argued that epistemology and methodology are inter-dependent (Hitchcock and Hughes, 1995). Moses and Knusten (2012) refer to this inter-dependency as the "three musketeers of speculative philosophy", and it is this overarching paradigm that guides all aspects of the research process (whether knowingly or not).

Thus, a research paradigm refers to the set of beliefs that guide action (Guba, 1990; Denzin and Lincoln, 2005; Creswell, 2009) and similarly Hughes (2010) asserts that a paradigm is a distinct way through which the world is seen and understood. There are three intrinsic questions that define the foundation of an inquiry paradigm: first, the ontological question, 'what is the nature of reality?' (what is it that can be known); secondly, the epistemological question about the knowledge of reality (how we know what we know); and thirdly, the methodological question of how a researcher can decipher and interpret the known reality. This paradigm provides a conceptual framework and overarching philosophy for the researcher as well as providing a blueprint for how methodological decisions are made (Guba and Lincoln, 1994).

A research paradigm shapes the process of inquiry from data collection to analysis, as well as the conclusions that are drawn, and ultimately it impacts on the way a researcher thinks about the topic and has substantial inference for every decision made in the research process (Hughes, 2010; Kiyunia and Kuyini, 2007). The ontological beliefs and epistemological relationship between the knower and known are the important determinants of how the social phenomenon under investigation is approached (Lincoln, Lynham and Guba, 2011).

As explained in the main Introduction, the current study aims to seek an understanding of inter-generational attitudes towards health behaviour among a UK South Asian group. The epistemological position is constructionist-interpretivist (Charmaz, 1990), which posits that multiple realities are constructed through social interactions. Moreover, people's social and cultural perspectives play a vital role in shaping their vision about the world (Crotty, 1998). Interpretivism and constructivism were selected as qualitative research paradigms of the study and they are often combined (Creswell, 2009). The experiences of the research participants could be constructed into knowledge through the critical interpretation of the researcher (Schwandt, 2001).

The researcher's beliefs and judgments play a role in framing the research paradigm, in that how they discern the world and the construction of knowledge is reflected within the constructivist paradigm. Constructivists argue that the methodology used in a study should help researchers understand how participants construct the meanings of their experiences and make sense of their world (Lincoln and Guba, 2013), which is often practiced in qualitative research designs using methods such as interviews and observations (Cresswell, 2014).

A constructivist paradigm for this study incorporated the researcher's ontological perspectives (multiple social realities exist) and subjective epistemology which refers to the co-construction of understanding by the participants and researcher. In the next sub-sections, outlines are provided for the constructivist paradigm in relation to three philosophical foundations; ontology, epistemology and methodology, and a brief comparison is presented between constructivism and positivism. It offers an insight into how an exploration of narrative, comprehension and the construction of meanings associated with the constructivist paradigm became a decisive factor for adopting it as a research paradigm.

3.3.1 Ontology

Within the positivist paradigm the world is seen as external to consciousness (Carson, Soeken and Grimm, 1988). Moreover, there is a single objective reality and that reality is known independently of those observing it, negating the researcher's own perspectives and beliefs (Hudson and Ozanne, 1988). The ontological position of positivism is based largely on realism, as reality exists independently of the researcher (Cohen, Manion and Morrison, 2007; Pring, 2000). Social phenomenon is independent from other factors and change is dependent on universal laws (Hughes, 2010)

In contrast, a constructivist paradigm suggests that there are multiple realities in the world (Guba and Lincoln, 1994), it aims to study the phenomenon in many ways to acquire knowledge. The ontology of constructivism is based more fundamentally on relativism, which claims that reality is subjective and is subjected to human dissimilarities (Guba and Lincoln, 1994). However, there is a continuum here between objectivist/positivist perspectives and relativist/social constructivist views, and most social research sits closer to the middle of this continuum (Searle, 1996).

3.3.2 Epistemology

Epistemology refers to the process of acquiring knowledge of truth or reality (Bryman, 2001). According to Guba (1990) epistemology is about seeking to explore the relationship between the researcher and reality, or how reality is known (Carson *et al.*, 2001). For example, the epistemological position of positivism is based on objectivism where knowledge about an objective reality is discovered by scientific and impartial inquirers (Crotty, 1998). Positivist epistemology advocates deductive reasoning by constructing hypotheses and testing those hypotheses through scientific methods to produce measurable outcomes (Kivunja and Kuyini, 2017).

In contrast, social constructivists believe that realities are not discovered but constructed between the researcher and participants (Gray, 2013), and that scientific knowledge is not

neutrally imparted (Latour, 1988). According to Crotty (1998) knowledge is constructed by the human interactions with their world, and an individual generates meanings of the world through social interactions, hence the social world can only be understood from the participants' stance (Cohen *et al.,* 2007). An individual's prior experiences, knowledge, political and social status, gender, race, class, and personal or cultural values can affect the construction of meaning of the social world (Lincoln and Guba, 2013).

3.3.3 Methodology

Methodologies are broad-based frameworks, which indicate the plan of action that largely determines the choice of certain research methods to use in a study (Crotty, 1998: McClean et al. 2019). Guba and Lincoln (1994) assert that a methodology is concerned with how a researcher acquires knowledge about a specific social reality. As discussed above, the ontological and epistemological stances of the researcher largely inform methodological aspects of a research design. Positivists argue that reality must be examined by using rigorous methods of scientific inquiry (Guba, 2014). Positivism asserts that human behaviour can be observed, identified, predicted and measured (Hitchcock and Hughes, 1995).

3.4: Rationale for Qualitative research methodology

Due to large scale international development and growth, the multidisciplinary public health approach has to ensure its progressive potential by challenging the conventional 'normative' approaches in health research to address compelling health problems in novel ways (Faltermaier, 1997). Qualitative research can be used to find answers to questions raised by quantitative findings, to understand a phenomenon. Qualitative methods can also aid exploration of new research problems and provide answers to more complex questions that require a different research approach (Ulin, Robinson and Elizabeth, 2005). In addition, Pope and Mays (1995) have emphasised the need for more qualitative approaches in social sciences, especially for under researched areas, of which migration would constitute one such area.

From the outset of the study, it was important to construct a research design that would lead to a better understanding of subjective attitudes, perceptions and behaviour. Qualitative methods are deemed to be more sensitive when learning about attitudes and behaviours by getting at what participants actually mean when they describe their life experiences and behaviours, and also how they construct the meanings of their experiences and make sense of their world (Merrium and Tisdell, 2015: Pope and May, 1995). Qualitative research was deemed appropriate for this enquiry not only because it has the ability to understand how people make sense of the world, but also because it provides an opportunity to study the interplay of human actions within the participants' socio-cultural worlds, contexts and constructs (Ulin, Robinson and Elizabeth, 2004).

Qualitative research helps address the 'how' and 'what' in research inquiry (Morrow, 2007) and has the ability to provide rich details in data and storytelling from the participant's perspective (Wynn and Money, 2009). A qualitative research method was also deemed most appropriate for the current study due to its exploratory nature. Earlier research in this field has not focussed on the insights of the South Asian minority group to improve diet and physical activity, highlighting the need for qualitative research to bring out the challenges and specific cultural needs of particularly hard to reach populations (Chapman *et al.*, 2013; Davidson *et al*., 2013). It is also suggested by Bhatnagar, Shaw and Foster (2015) that qualitative research methods are needed to understand why there are generational differences and variations in the physical activity among South Asians. The nature of the study was to explore the impact of inter-generational differences on the attitudes of lifestyle behavioural change, thus a research design was required that could access the complexities and facets of attitudes and human interactions.

Qualitative research is particularly useful to help understand approaches to, and ways of thinking about, factors attributable to influencing health behaviour in a socio-cultural context (Lucas *et al.*, 2012). To understand these factors sufficiently, the largely inductive nature of qualitative research is required, which focuses on building a theoretical explanation of a social phenomenon under research rather than testing theories through a hypothetico-deductive method (Glaser and Strauss, 1967). Qualitative methodology is especially significant in helping to understand the subjective experiences of individuals and groups and to study social

and cultural factors, which can shape one's health beliefs and behaviours (Strauss and Corbin, 1998).

Qualitative research is also used to explore the barriers or facilitators of an intervention or to synthesize the evidence of people's experience (Petticrew and Roberts, 2006). It is particularly significant in relation to this study as it can be argued that health professionals need to consider the diverse cultural needs and social values of different groups, as otherwise their advice can lack acceptability and is therefore less likely to be adhered to. In this regard, it is important to explore and understand those factors that can affect the acceptability of healthy lifestyle behaviours in ethnic minority groups (Lucas *et al.,* 2012). Qualitative methods are particularly useful to understand patterns of human behaviour (Lincoln and Guba, 1985), and also help develop understanding of poorly perceived phenomenon (Sofaer, 1999). A qualitative approach is important to help identify the health related perceptions and beliefs of South Asians, which can assist researchers to explore risk factors attributable to life-style related diseases in this particular group (Lucas *et al.*, 2012).

Hence qualitative methods can help to build new theories or adjust a deficient existing theory (Hurley, 1999). Lucas *et al.* (2012) argued that extending theories may help understanding towards a group's lifestyles, attitudes, beliefs and other health determinants. Furthermore, qualitative research mirrors debates surrounding individual and group subjective experiences in the context of social and cultural factors affecting health behaviour Lucas *et al* (2012), and can generate hypotheses from the lived experiences of the research participants (Sofaer, 1999).

The current study is significant and timely. Health intervention development needs to be culturally sensitive (and appropriate), whereas current interventions are based largely on Western behavioural models. More qualitative studies are needed to explore the cultural acceptability of healthier diets and physical activity (Lucas *et al*, 2012), and to fill the knowledge gap about inter-generational perceptions, attitudes and experiences of health behaviour (Bhatnagar, Shaw and Foster, 2015). The current study goes part way to addressing that gap. As Lincoln and Denzin (2005) postulate, qualitative studies enable a researcher to study things, make sense of them and interpret the phenomena in the context of the

meanings people bring to it. The use of a qualitative approach in the current study enabled understanding of the generational differences in health beliefs among UK South Asian participants with the provision of textual descriptions to enable a rich understanding of this complex social phenomenon.

3.5 Grounded Theory as a Guiding Methodology

The key principle of grounded theory is to develop an inductive theory that can offer an in-depth understanding of a substantive area (Glaser and Strauss, 1967). It aims to explore the subjective stories of lived experiences (Charmaz and Katz, 2017) and focusses on relational interactions with the social world (Charmaz, 2006). Grounded theory has two main characteristics: firstly, constant comparison, which seeks to identify and develop codes, categories and themes through analysing data; and secondly, the use of theoretical sampling, which aims to identify and select rich data sources to explain the social phenomenon (Charmaz, 2006; Hallberg, 2006). Grounded theory allows researchers to discover dominant social processes and can be utilised to explore the interactions between the constructed experiences and social processes (Wuest *et al*., 2002). Grounded theory enables the exploration of social processes present in human interactions (Hutchinson, 2001) and focusses on how people define realities and demonstrate their behaviour based on their own beliefs (Evans and Benefield, 2001), rather than testing pre-existing theory (Glaser and Strauss,1967). Researchers remain open to theoretical conceptualisation to generate a substantive theory which is therefore grounded in the data (Charmaz, 2006). The grounded theory approach encourages a narrative perspective which was particularly relevant to this research as it allows exploration and extraction of subjective meaning from the participants' stories to yield a rich dataset (Morrow, 2007).

One motive for using grounded theory was its suitability for studying people's attitudes towards healthy lifestyle behaviours through social processes, as it is a method that allows the construction and development of meaning through social interactions (Strauss and Corbin, 1998). Also, it was chosen due to its focus on investigating how and why people behave in certain ways depending on their contexts (Corbin and Strauss 2008; Dey 2007; Charmaz 2006;). This approach moves beyond description and interpretation (Charmaz, 2006)

and focuses on actions and processes, which allows the generation of a theoretical explanation of social phenomenon guided by the empirical data. This approach makes it better suited to understand the attitudes towards behavioural change from the participants' perspective (Strauss and Corbin,1998).

Grounded theory is an inductive research approach that provides substantive theory development from the data (data-driven theory). Charmaz (2006) outlines the basic guidelines for the grounded theory process such as coding, memo-writing and sampling by incorporating the classic grounded theory statements with the present century's methodological assumptions. The nature of this study deals with the psychosocial process of behaviour and aims to explore the pattern of health attitudes between two generations and explain how and why South Asian people behave in certain ways depending on similar or different contexts (Corbin and Strauss, 2008; Dey, 2007; Charmaz, 2006;). As an inductive approach, grounded theory assists in the generation of theory, by beginning the process without an existing theory or predefined concepts and collecting data based on general perspectives rather than a preconceived (a priori) theoretical framework (Glaser and Strauss, 1967).

3.5.1 A Constructivist Grounded Theory Approach

According to authors Denzin and Lincoln (2011) qualitative research does not adopt a specific set of methods nor owns a distinctive theory or paradigm. The specific methods vary according to a researcher's own philosophical position. However, a close relationship between the researcher's goals and their theoretical framework in any piece of qualitative research is crucial. Theoretical frameworks are comprised of all previous research findings, theories and conceptual ideas organised by the researcher; as such, the process of research is followed by the methodological choices determining how the information is gathered and analysis is performed (Crescentini and Mainardi, 2009).

To enhance the rigour of qualitative research, Braun and Clarke (2006) and Guba and Lincoln (1994) advocate choosing a methodology that is congruent with the epistemological beliefs of the study and aligns with its aims. The pragmatism embedded constructivist grounded

theory approach provides strategies for a critical qualitative inquiry (Charmaz, 2016). The constructivist approach, attributed to Kathy Charmaz (2006), reassesses Glaser and Strauss's classical grounded theory stance which disregards the presence of the researcher (due to bias) (Glaser, 2002) and assumes that a researcher is an objective observer in the process of data collection and analysis (Alemu *et al.,* 2015).

In contrast, constructivist grounded theory acknowledges the interaction between the researcher and participants and believes that the meanings are mutually co-created between them in the process of data collection and analysis (Charmaz, 2006, Mills, Bonner and Frances, 2006). Charmaz (2006) and Mills, Bonner and Frances (2006) also concede the likelihood of partiality in the process of data collection, and interactions between investigator and participants during the interview cannot be neutral. However, Mills, Bonner and Frances, (2006) argue that during the interview process different perspectives and viewpoints are raised and discussed and new knowledge is mutually constructed through active engagement. The emergence of theory from the data is the final outcome of grounded theory research and a constructive tone assists grounded theory to the notion that theory emerges through the active engagement and interaction of researcher and participants during different research stages (Alemu *et al*, 2017).

It was important to develop new theoretical insights surrounding UK South Asian beliefs and attitudes that might play a role in shaping their behaviour towards a healthy lifestyle. Due to the high risk of lifestyle-related diseases among UK South Asians, Lucas *et al*., (2013) emphasized the need to identify beliefs that might be attributable to contemporaneous health behaviours.

As explained, constructivists adopt a more relativist position, which recognises that the world consists of multiple realities and those realities must be understood in relation to a specific form of life, society or culture. Multiple individual realities in the world are influenced by context (Bernstein, 1983). In this regard, the constructivist approach was identified as appropriate as it allows the development of an understanding of the South Asian group's lifestyle, attitudes and beliefs within a specific context to gain an explanation of current health behaviours. Moreover, constructivist grounded theory aligns with the lead researcher's

epistemological values and is congruent with the research question and primary aims of the study.

Charmaz (2006) advocates co-construction of data between the researcher and participants with the recognition of subjective interrelationship. In the current study, it is believed that the researcher's and the participant's subjectivities interacted during the research interview process, potentially influencing the research data (Charmaz, 2006). It is also acknowledged that the social phenomenon could be understood by gleaning insights to the meanings linked to the attitudes and beliefs attributable to behaviour or actions (Gardner *et al*., 2012; Gardner, 2010). Hence this approach is particularly relevant to this study as it allows the exploration of the core meanings derived from the participant's stories as a narrative perspective helps yield rich data (Morrow, 2007). Constructivist grounded theory aims to acknowledge subjective experiences to construct social truths (ontology) and epistemologically speaking this approach requires reciprocity in the sharing of meanings. A sense of reciprocity was established between the researcher and the participants in the co-creation of meanings of the phenomenon under investigation (Charmaz, 2006; Mills, Bonner and Francis, 2006). The socially constructed multiple realities realign with constructivist grounded theory with the conceptual underpinnings of symbolic interactionism (Charmaz, 1990).

3.6: Methods

3.6.1 Ethical Considerations

Ethical approval for the study was sought from the Faculty of Health and Applied Sciences Research Ethics Committee at the University of the West of England Research & Governance board in adherence with university policy on (4th January 2017, See Appendix B). Participants were provided with printed information sheets [Appendix C] to ensure informed consent could be given to take part in the study. Once the information sheet was read by participants, they completed a consent form [Appendix A] on the day of interview before the interview was carried out. Participants were made aware of their right to withdraw from the study if they changed their mind without needing to give any reason. A risk assessment was carried

out to identify all ethical issues that might arise within the study (Long and Johnson, 2006; 2007). Issues were discussed with the research supervisors to obtain feedback. However, no concerns or sensitive issues were raised during the interviews which might cause emotional distress, anxiety or embarrassment (McCauley-Elsom *et al.,* (2009). A topic guide was used to structure the interviews [Appendix F], and they were conducted in a private place to protect confidentiality. Interviews were anonymised at the point of transcription with participants names replaced with pseudonyms.

3.6.2 Gaining Access

Once sites were sought, the key decision makers were contacted via phone and emails were sent with a research outline [see Appendix D] as Feldman *et al.*, (2003) note that engagement in an open and constructive relationship with gatekeepers is crucial before the participant introductions. A detailed meeting with the manager of one of the potential sites facilitated access and the lead researcher's South Asian ethnicity acted as an insider status, which aided initial contact with the participants. Appointments were sought with managerial gatekeepers to the institutions and meetings were arranged. Gummesson (2000) noted that building a positive relationship with the potential gatekeepers can play an integral part in social research especially when researching communities who have the least trust in conventional research (Eidie and Allen, 2005).

Detailed descriptions of the aims and objectives of the research and its future implications were provided to the managers. Upon initial entry to the sites the potential participants were given a briefing by the manager and researcher about the study information. This initial pre-participation phase provided an excellent opportunity to build trust for the potential participants to feel comfortable sharing their life experiences. A schedule of conducting interviews was agreed on certain days when the participants had no other activities or outdoor trips. As argued by Shenton and Hayter (2004), a phased entry approach into research sites can minimize the service disruption and allows a researcher to gradually become familiar. The meetings with potential participants were arranged by the manager of the site and participants were never approached directly, as it is suggested by Okumus,

Altinay and Roper (2007) that a researcher might be regarded as an outsider and identified as a potential threat to the organisation.

3.6.3 The Research Setting

Foley and Timonen (2014) suggest that the grounded theorist can recruit participants from multiple sources such as places of worship or migrant rights groups. In the current study the participants were recruited by accessing community services and the participants' own social networks, as study information was passed on to other South Asians. McAreavey and Das (2013) argue that researching minority groups always carries the risk of emerging issues of cultural sensitivity and positionality, a micro-interactional process is therefore required. The site approached provide a range of services to promote the health and wellbeing of South Asian people. 'Khidmat-e-Khalq' was a non-profit organization, which aims to provide health and social wellbeing services to South Asian people around Bristol and the South Gloucestershire area. It provides day centre services, support groups and support services to address social, health and educational needs. As an organization, it also seeks to develop new projects and services in partnership with others. People recruited from this site were mostly first-generation participants.

3.6.4 Sampling and case selection

Quantitative research focuses on gathering information from a large, mostly randomised sample, it aims to produce generalisable findings representing a population, and by collecting conclusive evidence (Bowling, 2009). However, methods used in qualitative data emphasise generating in-depth and information rich data about specific cases (Frechtling, 2002) and as such terms like 'case selection' are often preferred (McClean *et al.,* 2020; Emmel, 2013). Qualitative research favours the adaptation of methods that assist in gathering data that explore the personal feelings and experiences to help understand the perspectives of the phenomenon under question. In qualitative research, sample sizes are often small, however this does not hinder the process as data collection and analysis occurs concurrently until the aims of the study are achieved (Charmaz, 2006).

Since the aims of the qualitative research are to collect information rich data, grounded theorists often use purposive (or non-probability, judgment) sampling, focussing on approaching participants who can provide useful insights, which are relevant to the research topic, it is usually a nonprobability sample (Morse, 2007). For Foley and Timonen (2015) grounded theorists start gathering data from a small number of participants generally selected purposively and may later employ theoretical sampling on the grounds of the information gathered initially.

In this study, the sampling process started with selecting the participants who fitted the broad selection criteria. Thus, participants were purposively selected from a wide range of age groups to determine the first generation and the second generation (for details of the participants selected, see Table 1 below). Sampling began purposively in accordance with the constructivist grounded theory method, as this approach requires some preliminary data to be collected and analysed before applying theoretical sampling. Since purposive sampling is used for the identification and selection of information rich cases related to the phenomenon of interest, here South Asian participants represented the particular characteristics of a population that were of interest and best enabled to answer the research questions.

In contrast to homogeneous sampling, a more general, maximum variation, sample was used to recruit across the broad range of ethnic groups of South Asians including Indian, Pakistani and Bangladeshi, so as to develop a wider picture of the phenomenon. South Asian is the largest ethnic group in the UK and there is a vast variation and much socio-economic, religious and cultural heterogeneity within and between different South Asian groups (Bhatnagar, Shaw and Foster, 2015). As such, a maximum variation (also known as heterogenous sampling) approach was used to ensure that the sample represented a wide range of ethnic perspectives related to South Asian health behaviours, beliefs and perceptions. Heterogenous sampling provided some variation in attitudes, facilitators and barriers towards adapting healthy lifestyle based on cultural, ethnic and religious differences, suggesting that adopting similar approaches and interventions to enhance the awareness of healthy lifestyle may not be appropriate for all people across these diverse ethnic and cultural groups (Bhatnagar, Shaw and Foster, 2015).

The city of Bristol is the sixth most populous city in England, according to the 2011 census; the population comprises of 5.5% South Asians in racial and ethnic composition. According to the Bristol demographic information pack (2011), being a multi-cultural city, within Bristol some minority groups experience a higher prevalence of specific diseases, probably due to health services not meeting their specific cultural needs.

3.6.5 Theoretical Sampling in Constructivist Grounded Theory

One of the defining characteristics of a grounded theory approach is to not determine sample size in advance of data collection, but rather theoretical sampling is employed based on the emergence of categories and concepts from the initial data analysis (Alemu *et al*., 2017). These categories identified in the data set the guidelines for the next phase of data collection. According to Breckenridge and Jones (2009), theoretical sampling is a non-random method of sampling that, rather than aim to represent a population, seeks to identify data-rich sources. Theoretical sampling leads a researcher to collect more data to help appraise categories/themes and how those are related to each other, and it demonstrates some representativeness in the categories (Charmaz, 2006; Coyne, 1997). Theoretical sampling helps focus the data collection in order to enrich categories and provide further guidance for future data collection (Strauss and Corbin, 1998).

Thus, in addition to purposive, maximum variation, sampling, theoretical sampling was used in the study as the interviews progressed and new questions emerged from the data, which offers recursive identification and selection of potential data sources (Charmaz, 2006). Those new questions and potential data sources contribute to the exploration and saturation of the facets and attributes of the categories that emerge (Charmaz, 2006). For example, as the interviews proceeded in the study, new questions arose to develop the dimensions of the categories that emerged; challenges in lifestyle changes, making healthy decisions late, the start of a healthy lifestyle followed by a serious health condition, unhealthy behaviour considered fine in absence of health problem, health and healthy lifestyle not a priority. From those concepts new questions arose and urged the exploration of the extent of differences among two generations. Some assumptions were formed on the basis of the questions that emerged during the process of initial analysis and memoing. It was intended that those

assumptions would be verified in pursuit of achieving rich categories through further interviews with the modification of the interview questions. As Charmaz (2014) stated, abductive reasoning is intrinsic in theoretical sampling as a researcher checks their theoretical inferences through further pragmatic experiences and data collection. For example, early on in the data analysis, a category was identified that related to the participants' experiences of healthy lifestyle change. In analysing the first interview, the participant referred to making healthy changes after either being advised by a health professional or the onset of disease. He talked about "there is no need to eat plain food and doing exercise if you are healthy", so there was a question about whether this belief has any significant effect on his behaviour. Theoretical memos were developed to help to refine this idea and theoretical sampling was required to help scrutinise the developing concepts against the factual realities (Charmaz, 2006). In subsequent interviews with the participants (and a follow up interview with this participant), they were questioned directly around this aspect of their healthy lifestyle change experiences.

Questions in the interview schedule were also reconstructed/amended, to develop a conceptual structure to check items that needed confirmation or had been missed out (Glaser and Strauss, 1967). The ability to conduct follow-up interviews with key "informants" (Charmaz, 2006, p111) provided the opportunity to follow-up major concepts and thus allowed for theoretical sampling and addressed conceptual issues which is a strategy identified by Charmaz (2006). The process of theoretical sampling continues until the stage is reached where no new insight comes from the data (Colman and O'Connor, 2007), what has often been called 'saturation'. According to Guba and Lincoln (1989) the preliminary stage of data collection that leads to the next phase is a methodological approach, which aligns with the constructivism paradigm. Theoretical sampling is guided by the concurrent analysis, which aims to provide theoretical saturation where no new concepts are gained from constant comparative analysis (Charmaz, 2006).

3.6.6 Data collection (Interviews)

Unlike quantitative methods that seek to test a hypothesis, grounded theory studies aim to generate a theory drawn by participant-led data (Bryant and Charmaz, 2010). Grounded theory methodology enables a researcher to collect and analyse data concurrently and as part of an iterative process (Charmaz, 2006). Although a variety of data collection methods can be used in grounded theory studies, Charmaz (2006) asserts that face-to-face interviews are particularly useful in developing an interaction between the researcher and participant in order to generate new knowledge.

Hancock *et al.,* (2001) advocate semi-structured interviews, which enhance the flexibility of the research process along with the exploration of the themes of the study. Contextual factors of a researcher can affect the participant's readiness to promulgate their personal experiences (Berger, 2015), so participants are more likely to share their experiences with a researcher who they feel is comforting and supportive. Having shared a South Asian background some participants felt comfortable sharing different lifestyle aspects, which seemed to support this view.

A semi-structured interview schedule with approximately ten open ended questions was developed (see Appendix F). As suggested by Richard and Morse (2012), a semi-structured interview method is particularly useful for meaningful interaction between a researcher and participants and enables them to share their attitudes and beliefs. The early questions were developed to put participants at ease and the schedule therefore opened with a general question about their views and beliefs about the description and perception of health and a healthy life. The interview questions covered topics on the subject's views regarding perceptions of health and a healthy lifestyle, as well as their current attitude towards a healthy lifestyle, plans for the future and factors involved in shaping their health behaviour. As suggested by Charmaz (2006), the grounded theorist should formulate few broad open-ended questions to begin with and then devise more focused questions in the next stage that can offer a detailed discussion of the topic. Open-ended questions can set a broad framework within which interviewees can articulate their responses and express their experiences about

the concerned topics, in their own words. Two additional questions were added to help develop analysis in line with the constructivist grounded theory.

A good balance between open-ended questions and focusing on significant statements depends on the combination of question construction and interview organization. A careful selection of questions can explore the research topic and should fit in participant's experiences (Charmaz, 2006). Initial interview questions were further developed into an interview guide (see Appendix). To avoid the danger of missing out obvious points Charmaz (2006) suggests having a well-planned interview guide which can increase a researcher's confidence and enable them to concentrate on the conversation of the speaker. It also provides early insights into how health is defined and how the health behaviour of South Asians is shaped on those perceptions whilst also offering flexibility to raise self-identified topics (Seidman, 2006). As interviews progressed, useful theoretical and meaningful insights were explored from the relevant data (Strauss and Corbin, 1990), those insights were further examined to expound theoretical construction (Charmaz, 2006). Open-ended questions provided an opportunity to follow up what had already been said and asking further open-ended follow-up questions or 'probes' that assimilate the interviewee's words, also helped to gain further understanding of the topic (Roulston, 2010).

3.7 Data Analysis

Data were analysed by following the grounded theory procedure outlined by Charmaz (2010, 2008 and 2010). The data were read thoroughly numerous times to gain familiarity. Charmaz (2003) notes that the constructivist approach enables a researcher to interpret data, actively translating and representing participant's lived experiences. Charmaz (2006) accepts the possibility of using basic grounded theory integrated with contemporary approaches.

3.7.1 Open Coding

Coding is the preliminary stage of data analysis and the most foundational process in grounded theory that asks questions of the data to better understand a research topic and

provides direction to data collection (Wiling, 2001). Initial coding is an active process that develops interactions between the researcher and the data (Charmaz, 2006).

Open coding is an interactive process, and it was acknowledged that interpretations can be affected by the researcher's prior knowledge and experience. Therefore, in the first stage of data analysis, interviews were coded line by line to systematically assign labels to sections of data (Charmaz, 2006) to avoid pre-conceptions and to allow the participant's narrative to be conceded. Initial labels were descriptive staying closer to the data, but they gave an idea about what has been suggested through the data. As an interactive process, it also enabled the researcher to look for the actions indicated by the data rather than applying any pre-existing theory (Charmaz, 2010). Questions such as "what does this suggest here?", "what kind of factors influence behaviour change?" were asked. Active gerunds, a form of verb which functions as a noun, were used to label the segments of data. They help to stay close to the data and to focus on processes (Glaser, 2010), and also enable the labelling of chunks of text to describe actions and help the understanding of explicit meanings to unfold within the data (Charmaz, 2012). The in vivo codes used in the analysis of the data were sensitive to and close to data as they came out from the data, and thus provided symbolic markers of participants' perspectives. For example, *having no disease* was an in vivo code that is also in a form of gerund. This was used to describe a healthy person or define a state of health by the participants. Similarly, *being active* described the perception of health, and that a person was perceived healthy by the activity level. *Eating healthy* was another code expressing this concept as a gerund preserves the sense of action associated with the concept of health and a healthy person.

Once initial meanings were identified, audio recordings, transcripts and notes were revisited as this offers reassurance that the analysis is suggestive of the data. Strauss and Corbin (1998) favour returning to the data source as it can challenge the initial suppositions conceived from the coding process. Revisiting the data appeared to be encouraging as the researcher discovered new interpretations of South Asian perspectives from different angles (Charmaz, 2006). Repeated reading of the interview transcripts offered sensitivity to the beliefs and attitudes of South Asian's towards health and how these attitudes affect their actions and behaviour change. According to Glaser and Holton (2004) development of theoretical

sensitivity is pivotal in order to allow concept generation. Charmaz (2010) suggests that life studies should be viewed from different points, compared and meanings should be built on those ideas to gain theoretical sensitivity.

Constant comparison of initial findings enables making data to data, comparing new information with previously collected information to identify repeated patterns and differences and to generate further theoretical ideas (Lazenbatt and Elliot, 2005). As initial coding progressed, the constant comparison of initial data fostered the refinement of codes after which categories started emerging from the data, which also provided new insights throughout the analytical process.

3.7.2 Focused Coding

Focused coding is the second stage of data analysis that is more directive and theoretical than line by line coding (Glaser, 1978). This stage is conducted after establishment of strong analytic directions lead by the initial line by line coding. It involves a refined analysis and explanation of larger sections of data. It also allows the researcher to make decisions at this stage about the codes which make most analytical sense (Charmaz, 2006). Focused codes move from the descriptive to the abstract level which enabled the researcher to look into the patterns within the codes and to identify recurrent concepts within the data.

Each transcript was reread, then it was contrasted with early categories and those early categories were then contrasted with the new data. Comparing data to data enables the development of focus codes and then data is compared to these codes which assist to refine them. A focus code is a theme which seeks to articulate what participants have said. Focus coding also helped to capture the process and comparison between pre-existing categories and newly refined categories which aided the determination of the adequacy of the initial codes, as suggested by Charmaz (2006).

In the study, codes were used to explore various standpoints of a South Asian group living in the UK about health behaviour within two generations. Multiple labels appeared to be a

source of description of various aspects of unfolding content, it enabled the researcher to conceptualise different perspectives of the participants.

Early categories were developed as focus coding progressed, and those early categories were considered provisional, with an aim to stay more open to the possibility of further analytical development which is a significant feature of grounded theory (Charmaz, 2006). The focus coding phase required active involvement from the researcher. When undertaking focussed coding, it was essential to move back and forth between interview recordings, transcripts and memos and compare participants' point views and experiences. For instance, in relation to the code *having no disease*, all the data sources were consulted to see how each participant had discussed the perception of health. When compared what each participant said, it not only helped in refining the code but also left the door ajar for further exploration and development of this code. Exploration of the reasons for this code led to exploring its new dimensions, which further identified participants' beliefs and experiences around not to bring change in their lifestyle if they are healthy and have no health issues. The initial code *having no disease* then developed into a category, *no health issues no worries.*

Analytical thinking about the data was required and action was taken with the data which provided new analytical insights and alternative explanations of the data that had not been previously considered. Focus coding also challenges a researcher's preconceptions of the topic (Charmaz, 2006). Using constant comparison analysis, focus coding continued until theoretical categories were identified.

3.7.3 Theoretical Coding

Glaser (1978) argues that theoretical codes assist researcher to maintain a conceptual level of the concepts and establishing a relationship between them that leads to the development of an integrated and explanatory GT. Theoretical coding is an advanced stage that follows the codes selected in focus coding, it also defines the relationship between the categories developed in the focused coding stage (Charmaz, 2006). This stage involves the refinement and integration of concepts into theoretical categories (Charmaz, 1990).

Theoretical codes are integrative, which not only identify how substantive codes are related but also aids in informing an analytic story leading towards theoretical directions. Insights provided by theoretical coding enable a researcher to develop an integrated theory (Charmaz, 2006).

3.7.4 Constant Comparison

The key feature of grounded theory is constant comparison analysis, a process of concurrent data collection to identify the conceptual meanings of social processes within a phenomenon (Strauss and Corbin, 1998). Charmaz (2014) states that the constant comparative method and researchers' engagement are fundamental elements in the constitution of grounded theory. Constant comparison between data, codes and categories enables a researcher to develop conceptual understandings of the categories developed. Constant comparison method as an interactive process empowers a researcher's ability to explore interrelationships between derived categories and under-researched phenomenon (Charmaz, 2014). Glaser and Strauss (1967) define the constant comparison method as a simultaneous method beginning from each level of data collection, coding and then analysing. Through concurrent data collection and analysis, the constant comparative method along with countless interactions determine to present data that is explicitly theoretical (Charmaz, 2014).

The constant comparison method was used within this study under the guidance provided by Charmaz (2006). It enabled a comprehensive approach to be adopted to explore the health perceptions and attitudes of UK South Asians and to generate insights about how these attitudes influence their behaviour towards adopting a healthy lifestyle. Each interview was transcribed and analysed before the next one to compare new information with the previous narratives, it allowed the researcher to explore similarities and differences encouraging rigorous comparison of the data (Lazenbatt and Elliot, 2005). The process became increasingly analytical as the constant comparison method allowed comparison of data with data, data with codes, codes with codes, codes with categories and then categories with categories. The coding process introduced new facets of the data providing new angles to speculate. It was clear that previous ideas and assumptions were challenged and it was important to look and think about the data in new ways. For example, when a question was posed to the participants

in an interview about whether healthy lifestyle changes can improve health, they said that they felt positive about it. When asked to clarify what this meant, the participant responded by saying that healthy lifestyle changes can minimise the risk of disease and improve existing condition. Sometimes views and experiences confounded expectation, here I was expecting 'fatalism'. This notion came to be recognised as an aspect of participants' strategies of bringing about change in the theorising of the data.

All the interviews and the narratives were compared with each other, through this constant comparison the researcher became acquainted with the emerging issues and further questions were developed which guided the theoretical sampling strategy. The following sections of this chapter account for how the constant comparison method was used, examples are provided signifying how codes were developed and categories were progressed until theoretical sufficiency was achieved.

3.7.5 Memo Writing

Memo writing provided an opportunity for researcher reflection surrounding thoughts about patterns that were noticed in the data and how the similarities and differences within the data were comprehended. Memo writing is a significant step in grounded theory which prompts a researcher to perform a concurrent analysis of their ideas about the initial codes and categories. It is a transitional step between data collection and writing drafts (Charmaz, 2006). The memo-writing process increases a researchers' level of abstraction by keeping them involved in constant analysis (Charmaz, 2006).

In the current study memo-writing was found to be particularly useful in the generation of a conceptual framework for the work, it assisted the identified of similarities in the data to capture the patterns and their connections within the data. The process of sorting memos also assisted in the development of new insights and ideas through engaging different categories as stated by Charmaz (2006).

3.7.6 Theoretical Saturation

Theoretical saturation is an important part of the process of constructivist grounded theory. Theoretical saturation is the stage at which the core categories which have emerged from the data analysis are developed by the adequate data (Charmaz, 2006).

In this study, five core categories identified, and data had been collected until these core categories were fully developed. Additional data was collected to supplement and further saturate those core categories. Due to the constructivist nature of the study, concurrent analysis was sought to achieve theoretical sufficiency. Focused coding identified conceptual patterns in the data; comparative analysis continued until theoretical categories were sufficiently aided by theoretical codes. Data collection was stopped once no new theoretical insights were yielded from the data (Dey. 1999) and no new codes could be generated from new data (Glaser and Strauss, 1967) theoretical sufficiency readdress theoretical saturation that aims to obtain multiple meanings (Dey, 2007). It is a similar method to that suggested by Corbin and Strauss (2008), saturating concepts are an appropriate way to complete a study rather than only saturating the sample (Howarth, 2012).

3.7.7 Conceptualization

The process of conceptualization assists the linking of concepts and serves as an impulsion for the formulation of theory (Bowen, 2006). Charmaz (2006) states, a researcher should always remain open to the theoretical possibilities and ponder beyond the coding stage, seeking to raise categories to concepts and to achieve theorising. Charmaz (2006) further explains that most consequential and important categories become concepts of the theory. Careful consideration is needed to identify those significant categories that exhibit and manifest the data most effectively.

Core conceptual categories were identified from the initial coding (Charmaz, 2006) and initial categories that were found in high frequency and appeared to have connections with other categories were identified in the later stages of analysis. These are certain categories that hold pivotal properties and carry a substantial analytical weight which make the data

consequential. Choosing major categories at the initial stage of analysis was not considered a good idea, as Charmaz (2006) suggests that raising categories to concepts elevates the analysis to the next level by analytically refining these concepts. These theoretical concepts then offer an interpretive framework for a constructivist researcher rendering an abstract understanding of relationships between the concepts contrary to the notion of serving these concepts as core variables in classical grounded theory (Charmaz, 2006). In this study, theoretical concepts led to theory development that is distinct from description (Strauss and Corbin, 2008). Whilst description are formed by the words of a person that supplicate mental images of objects, events and experiences, theory is an abstract explanation of a phenomenon (Holton, 2007; Charmaz, 2006). In this study, theoretical concepts were developed by staying close to the data and by moving back and forth within it, this process led towards achieving increasingly more abstract categories. The researchers own observations were noted during the interviews and a comparison was made with the data to construct implicit meanings and acquire a strengthened theoretical conceptualisation (Charmaz, 2006). The theoretical concepts which were developed in this study were perceptions of health, lifestyle experiences and practices, personal constituents of health, social and cultural barriers and bringing about change.

3.7.8 Theorising

Grounded theory offers an abstract theoretical understanding of the studied experience (Charmaz, 2006) and aims to achieve theorising which is a fundamental feature of grounded theory. Theorising seeks to understand a particular situation rather than explain it (Clarke, 2005). The study has resulted in the theorising of the healthy lifestyle perspectives of UK South Asians through their practices and experiences. Immersion within the data (Morrow, 2005) enabled understanding of participant's meanings and actions to identify the most relevant data to abet theory. From a constructionist perspective, it is acknowledged that the researcher's own knowledge and experience influence the data interpretation. Therefore, care was taken to avoid forcing pre-assumptions onto the data, revisiting the data to developing abstract concepts and to identify the relations between them (Bryant and Charmaz, 2007). I presented myself as a person who did not have knowledge about the background of the South Asian culture. However, unlike convention that requires the

interviewer to be neutral and non-directional to avoid bias (Gubrium and Holstein, 2003); I used myself in building the relationship and to communicate with participants to create stories (Nunkoosing, 2005). I took this stance because I wanted to acquire from the participants their own unique knowledge and investigate the experiences related to their engagement with healthy lifestyle practices. I asked open ended questions supplemented by the follow-up questions and re-formulated questions to obtain detailed narratives from the participants, this helped the participants frame their answers in terms of their reciprocal understanding. However, the interview process was not merely a neutral exchange of my asking questions and gathering answers, rather it was a collaborative effort whereby my exchanges with the participants in the study led to the creation of the co-constructional meanings. As theorising allows a researcher to stop, ponder and rethink to gain new insights, it enables researchers to "reach down to fundamentals, up to abstractions and probe into experience" (Charmaz, 2006, p135). Initial memos were used to make connections between the interview topic, units of actions across cases and establishing links between concepts. It helped me to log reflexive observations, record initial thoughts for future actions. It became especially useful in the later stages

The process of theorising is not transparent or mechanical, but rather is open to playfulness and wonder (Charmaz, 2006). During the course of the research an issue was encountered where the researchers belonging to the same ethnic group as the participants made interviews become an opportunity of catharsis and resulted in long, sometimes irrelevant discourse. It was particularly difficult to draw abstractions from those stories told by the first-generation participants. However, the role of researcher requires engagement with the world and construction of the abstract understandings (Charmaz, 2006). Revisiting data, deep immersion in data and repeated reading of transcripts fostered sensitivity towards South Asian participants attitudes towards a healthy lifestyle and enabled me to encompass their beliefs and how such beliefs impacted on action (health behaviour). Constant comparison of data sets enabled and facilitated early category formation and identifying features. N-Vivo became a useful tool to form early categories by using a simple system of colour coding. This tool facilitated comparison between different features of data by reducing the large amount of data into short description of action.

Ambiguity and uncertainty are part of the theorising process which requires the researcher's engagement and interaction with the data, who needs to ask grounded theory questions such as 'what is going on here?'. In the current study, it was about the lead researcher engaging with those participants (who shared the same ethnicity) through talking, listening to their experiences and observing them as they were engaged in the process. The development of interactions enabled the development of understanding of the meanings constructed within an ethnic group under investigation. Theorising also involved interaction with the data by studying and analysing it how and why those meanings were constructed and translated into actions.

In grounded theory, "a substantive theory refers to a set of explanations that elucidate the phenomena within a substantive area such as sociological inquiry" (Glaser and Strauss,1971, p177). In this study understandings have been derived from the research with the two generations of UK South Asians whose health attitudes, current health conditions and lifestyle practices were attributable to a number of factors. The set of explanations is concerned with the lifestyle behaviour of UK south Asians within the context of migration and generational differences within the group.

3.8: Reflexivity

Reflexivity in research is commonly viewed as turning the lens back towards yourself to take leadership for your own immersion within the research and to acknowledge the effects that it may have on the settings, questions of the research, data collection and its interpretation (Berger, 2013). Another goal of reflexivity is to bring a precision and validity into the research through the accountability of the researcher's beliefs, biases and comprehension (Cutcliff, 2003). The objective of the current study was to look into the impact of the generational differences in attitudes towards healthy lifestyles among UK South Asians. Exploring attitude differences among two generations means most of the participants were immigrants who migrated from South Asia to the UK or they are still deeply rooted in their South Asian culture. I relocated to the UK from Pakistan in 2009 and experienced hostile circumstances in the journey of re-establishing my financial and social status in a new country, which was an

entirely different culture from the country I belonged to. Shaws (1996) argues that a researcher being a part of the research group is concomitantly a bystander (non-participant) and a member of the cast. Belonging to the same ethnic group and having a relatively similar experience of migration with the group of study positioned me in the role of an insider. Being an insider facilitated me in recruiting study participants as I was not treated as a stranger. Being a stranger to the culture may act as a barrier to develop a rapport between researcher and participants. It increased the level of comfort for me having realised that I was welcomed by the participants. As suggested by Padgett (2009), and Kacen and Chaitin (2006), the advantages of studying the familiar include an easy entry, a favourable and promising start and implicit understanding of the nuanced reactions of the partakers of the study.

Kacen and Chaitin (2006) discussed the advantages and disadvantages of the researcher being part of the context, insider position is one of the advantages; the researcher is already intimate with the background, its language and symbols. This was the case in the current research where being held in an insider position enabled me to gain trust and achieve rapport with the study participants from the South Asian group living in the UK. Having shared a familiar language and context offered an implicit understanding-based conversation between myself and the participants. The study participants expressed their trust that being from the same ethnic background I would be able to understand their issues and represent those effectively. I noticed that the participants were very amenable and cooperative, they felt comfortable when they knew that they could speak in their native language to express themselves easily. They were more willing to share their personal experiences and problems as they perceived me to be sympathetic to their situation (De Tona, 2006). Building rapport with the South Asian participants entailed participating in some of the activities with them such as talking about their next day trip to the theme park and having lunch with them in the community centre. One example of building rapport was assisting a participant (who had mobility issues) to communal areas from the van and an informal chat with her was had about her health issues.

The behaviour of the researcher can influence the direction of the findings by affecting the participants' responses, the research is a joint outcome of the researcher and the researched and the meanings of the findings are co-constructed by their relationship (Finlay, 2002).

During data collection some responses were so vivid that I could not resist nodding in reconciliation having shared the same social context which might have influenced further responses of the participants. I needed to reflect on the possible impact of my close affiliation (being South Asian) might have within the process of data collection. I might overlook some of the taken-for-granted information that impacted participants lifestyle practices. To avoid the danger of missing information I positioned myself as an outsider at least tacitly agreeing with the speakers, encouraging them to tell me more to give them a chance to articulate their intentions and meanings instead of nodding as if the meanings were understood automatically (Charmaz, 2006). For example, I had a high degree of awareness about migration and the problems related to it. During the course of this research, similar problems were echoed by the research participants. However, I acknowledged that no two individuals will have the same experience and this was the case with the heterogenic SA research participants. Similarly, belonging to the same culture, I was fully aware of the cultural values, traditional aspects and some of the religious obligations (particularly about the Muslim community). I expected similar views from the participants at times. However, remaining transparent and conscious of these perspectives and it was important not to assuming that the participants would share similar perspectives and experiences. This stance assisted me in understanding and exploring attitudes and beliefs of South Asian participants from their own perspective. During the course of this work, I had to be aware of the notion of giving voice (a kind of advocacy) to the participants' perspectives. I reflected again and again on discouraging inclination to present data according to my previous knowledge or experiences and asked important questions for reflection such as to what extent were different perspectives were given voice (Clarke, 2005).

My cultural intuition allowed me to approach the study with some insights about the subject which helped me address certain issues more easily. On various occasions during the interview, participants shared not only their lifestyle experiences and health problems but also their personal family matters and issues which were comparatively irrelevant to the research topic. Initially, I thought this conversation which was unrelated to the topic might mislead me and shift the direction of the research. However, with the passage of time I realised, it was quite helpful as an empathetic relationship can help build up a level of trust

which is imperative for interviews to precisely represent participant's concerns (Hall and Callery, 2001).

Being a good listener to the stories of the participants, I noticed the development of an empathetic relationship between myself and the participants during the interviews. Being identified as a public health researcher, participants may have perceived it similarly to a health professional affecting the way the participants communicated about their health problems. It was very important to understand the impact of my personal identity and it helped me consider the shifting power relations between myself and the participants, social and structural powers were brought in from the both sides (Daley, 2010). It was interesting to consider where I positioned myself as a researcher, where the participants positioned me as a health care representative or a sympathizer sharing the same ethnic identity and how this position might reflect in their narrative. Whilst sharing their life experiences many first-generation participants used the words like "As you know how we are" in different terms such as food and diet experiences etc. The word 'We' and 'Us' diminished the distance between myself as it is argued by Alex and Hammarström (2008) that factors such as gender, age, education and ethnicity can narrow or widen the social distance between researcher and participants. It also reflected the power shift towards participants by affecting their expressions, their unfinished phrases and incomplete sentences could have been based on the assumption that I would already know and understand underlying meanings. In this situation I had to be more aware and watchful on how my presence and shared social identity might structure the discussion. Becoming an insider better equipped me to talk with a shared understanding and assisted me to become more aware of the subtlety of the data. However, I had to precisely reflect on my existence and encourage the participants to share their issues and experiences regardless of our identical social background or identity.

Alongside the benefits, a researcher's insider position carries the risk of biases and the research can be contaminated by a researcher's own views, perceptions and values (Drake, 2010). The recruited participants in my studies were all South Asians falling into first and second generation. In the process of interviewing, and at different points of data analysis, my own perspective and thoughts with the particular issues were inevitable. I had to constantly reflect on how my own perspective can shape the conversation and affect the analysis. To

avoid the contamination, I had to deliberately stay in a position which could offer me an explanation that we might have similar background but I had to learn the participants views and experiences which were definitely different for each. An insider position carries the danger of missing out important information as participants assume those obvious to the researcher and researcher might ignore certain aspects of their experiences by taking shared experiences for granted (Daly, 1992 cited by Berger, 2015). To avoid the danger of participants withholding or missing out any information I tried to encourage interviewees to speak about their experiences and tell their stories. I compromised, listening to irrelevant information rather than pushing participants in a certain direction. I had to watch over the assumption that my participants and I shared the same language, without this acknowledgement I might have missed the point (Finley, 2002). According to Berger (2015) shared experiences can shape the power relationship between researcher and participant and it can be in various forms. It was interesting to consider the shifts of power between myself and participants and how these elements affected the research process. Having shared culture and language provoked a sense of collaboration between participants. However, as an insider I realised that participants' assumptions about me was that I knew all about the health attitudes and experiences of the South Asian group. It posed a challenge at times, so I deliberately distanced myself and decided to not share my own thoughts and perceptions about health. I wanted to minimize bringing my own reactions and perspectives in and maximise the space for the participants to share their views and experiences.

According to Finlay (2002), a researcher is a central figure of the research process, therefore data collection, selection and interpretation can be influenced by the researcher. As discussed earlier at first, I held an insider position however I saw my 'outsider' status as being due to the fact that I was a higher-level academic researcher. It was consistent with Deutsch's (1981) statement that "we are all multiple insiders and outsiders" (p.174).

Five female participants were uneducated or less educated so potentially I had a privileged position. I wondered how and to what extent it affected their responses as I felt myself at a distance. I did not ask or discus this as I did not feel confident to do so, however I realised this was an important element of being an outsider and it might have reduced the level of understanding. I knew education and knowledge can bring a huge difference in behaviour and

this perception started affecting my analysis, especially listening to the transcripts of those interviewees who were not educated and seemed to stick to their cultural values and norms which can be risk factors for ill health. Again, I had to be aware of my implicit assumptions and speculations about those interviewees who were less educated.

I am a very health conscious person, always ready to bring a healthy change in my life and compromise on my cultural norms. I had to be mindful of my own perspectives and acknowledge the differences as cultural practices and beliefs were very important to many interviewees.

3.9: Conclusion

This chapter has presented the features of the methods of data analysis that were employed in this study. An amenable approach was adapted to develop initial, focussed and theoretical codes guided by Charmaz (2006). The study was completed by the identification of saturation of theoretical concepts to achieve theoretical sufficiency. The chapter presented a description of the different stages of the analytical process that support the validity of the findings.

Chapter 4: Findings

Figure 2: Distribution of findings

4.1 Introduction

This chapter provides the theoretical categories using a constructionist grounded theory method detailed in Chapter 3. The findings focus on the themes which explore the impact of generational differences upon healthy lifestyle changes among the South Asian population living in the UK. Participants from both generations perceived 'health' in the context of the public health model which refers to all organized measures to promote wellness and prevent disease. Participants expressed their views about diet, food choices and their lifestyle which reflected their knowledge and awareness of healthy lifestyle to some extent. Despite their knowledge, the food and diet experiences appeared to be affected by the traditional norms and cultural restraints. The second generation appeared to be more willing to adopt lifestyle changes yet found themselves in a challenging situation due to family dynamics. Both generations communicated the factors involved in accepting healthy choices and participating in healthy behaviours. Adoption of physical activity seemed to be low among the participants and forms of exercises include shopping, going out with children and daily household work. Barriers to adopting physical activity included lack of motivation, allocating less priority, environmental factors, tiredness and boredom. Similarly, challenges were reported towards adopting changes in food and diet based on cultural restraints and lack of professional advice. A number of responses revealed that it was a common practice in the South Asian group to make healthy decisions late; health issues and diseases were significant motivators to bring about changes in the participants' lifestyles. Fear of disease was perceived as a precaution and serious health problems appeared to be a prime motive for changing eating habits.

4.1.1 Participant characteristics

Twenty-seven participants (13 male & 14 female) were selected for face-to-face semi-structured interviews. The eligibility criteria included were as follows:

- Must belong to South Asian ethnicity
- Must be aged 18 years and over

- Must be able to communicate effectively in English, or in Urdu/Hindi or Punjabi language
- Must have the mental capacity to understand the study sufficiently to provide informed consent.

The inclusion criteria were kept broad to allow a wide range of ages and individuals from different South Asian cultures and religions (Figure 1 below indicates the ethnic distribution of participants). The wide age range was considered to recruit individuals from two different migrant generations (first generation; that is, migrants who have moved to the UK from their native country; and second generation, individuals born in the UK, and who have a migrant first-generation parent/s – see Bhatnager, Shaw, Foster, 2015).

Table 1. Summary of sample characteristics of participants

Pseudonym	**Gender**	**Ethnicity**	**Age (yrs)**	**Year of entry to the UK**	**Religion**
Mrs Kaur	Female	Indian	75	1957	Hindu
Amit	Male	Indian	85	1970	Sikh
Khalil	Male	Pakistani	76	1961	Muslim
Sajida	Female	Pakistani	43	1998	Muslim
Arif	Male	Bangladeshi	31	2010	Muslim
Arfa	Female	Pakistani	34	UK Born	Muslim
Aimen	Female	Pakistani	32	2000	Muslim
Parmeet	Male	Indian	33	2007	Hindu
Saira	Female	Pakistani	36	UK Born	Muslim
Sabira	Female	Bangladeshi	50	UK Born	Muslim
Ali	Male	Pakistani	36	2007	Muslim
Hamida	Female	Pakistani	68	1967	Muslim
Dawood	Male	Pakistani	30	UK Born	Muslim
Shoaib	Male	Pakistani	28	UK Born	Muslim
Rayyan	Male	Pakistani	19	UK Born	Muslim
Naseem	Female	Pakistani	41	1994	Muslim
Neelofur	Female	Pakistani	43	1997	Muslim
Muneebah	Female	Pakistani	40	2007	Muslim
Nasir	Male	Pakistani	32	2010	Muslim
George	Male	Indian	45	2005	Hindu
Ankita	Female	Indian	44	2004	Hindu
Maher	Female	Pakistani	19	UK Born	Muslim
Salma	Female	Pakistani	50	2004	Muslim
Ahsan	Male	Pakistani	30	UK Born	Muslim
Anisa	Female	Pakistani	30	UK Born	Muslim
Rashid	Male	Indian	22	UK Born	Hindu
Khalid	Male	Pakistani	49	2009	Muslim

4.2: Perspectives of Health and Well-being

The first category, 'perspectives of health and well-being', relates to beliefs which influence the participant's approach to adopting a healthy lifestyle. Each person within the study described their thoughts about health and well-being which helped to identify their health perceptions and attitudes towards a healthy lifestyle. Initial analysis gave prominence to the beliefs South Asian participants held which might have a great influence on their health behavior. Participant's attitudes and beliefs formed about health and a healthy lifestyle are projected onto their lifestyle practices and experiences. Health and well-being was also perceived from a family context. Achieving good health and adopting a healthy lifestyle is considered to be of higher importance when you hold family responsibilities; this is reflected in the excerpt below:

> *"Being healthy becomes more important when you are married having a family and kids*" [Arfa34, 2G]

Discussion in relation to 'why health or healthy life is important' identified that a variety of factors can influence an individual's health perspective. Additional responsibilities may change the perception of being healthy such as the responsibility of family; being a mother or wife can have an influence on an individual's perception of health and the health choices the individual makes. Furthermore, this also signifies the importance of a family unit among the South Asian group. This is reflected in the discussion below with Sajida, 43, who is a mother of two:

> *"Healthy to me means a healthier lifestyle as a mother and as a wife. It is my responsibility to keep myself and my family healthy. I would like to live a healthy life, eat healthy food do and as much exercise as possible……. It is my responsibility to my daughter to stay as healthy as possible."[Sajida43, 1G].*

4.2.1 Absence of disease

A person with no health issues is perceived to be healthy by many participants. This indication is important to help understand the perception of health that appears to influence beliefs and translates to behavioural change in South Asian communities in the UK. The participants explained that a healthy person is someone who is very careful about their food choices and has no restriction on his/her diet from the health professionals. This is reflected in the discussion with a participant below:

> *"A healthy person is the one who cares about their health and who is living without any health problems.*" [*Muneebah*40, *1G*]

Likewise, Salma a Pakistani mother of four explained that a healthy person is one with no health issues, who is active and consumes healthy food. She explained that she had seen her parents suffer from diabetes and heart diseases and for this reason she believes a person who exercises and has no health issues is classed as a healthy person. Participants from both generations believed health is firmly connected with the absence of disease and leading an active lifestyle. Another female participant from the first generation suggested a person with no health problems is believed to be a healthy person.

> "*A healthy person, I believe is the one who eats healthy food and has no health issues; a person who walks and does other exercises."[Salma50, 1G]*

A common belief about being unhealthy appeared to be having lifestyle related health issues such as heart diseases and diabetes. Anisa who was a young mother shared her own concern about being overweight, she believed that being overweight could cause a number of problems including having difficulties in becoming pregnant.

> "*I think an unhealthy person has health problems, e.g diabetes, breathing problems, an overweight woman might not be able to conceive."[Anisa30, 2G]*

Mental health was considered a part of general health to be a healthy person. Many participants argued that physical health and mental health are interrelated, and one can affect the other. A comparison between the home country and the host country was made by many participants, revealing that they seemed to suffer more stress and anxiety in the UK than their home country for different reasons including work related stress and lack of social activities. Initial coding from these excerpts such as 'healthy mind healthy body', UK weather stressful', 'loneliness', 'work pressure', 'everyone is busy', 'less socialising' indicated how participants described their thoughts associated with stress, mental well-being and how they related it to general health. The discussion with various participants below reflects this:

> "….*A person who has no diseases is a healthy person as long as they are mentally healthy and are happy and content in their lives."[Ankita44, 1G]*

> "*Weather in this country can make us depressed ……..[Khalil76, 1G]*

Exercise was considered by the participants to be very important to reduce stress as many participants mentioned the weather in the UK to be a leading factor which causes stress. Physical activity was believed to be the source of increasing overall health, well-being and can provide stress relieving benefits.

> *"…sitting down all the time and not doing exercise will only result in you putting on weight, being overweight can cause more health issues"[Arfa34, 2G].*

4.2.2 Being Organised

Similar to a traditional public health perspective, the participants generally described a healthy lifestyle to be an organized routine of eating and maintaining a regular physical activity. Being overweight, unhealthy eating, and minimal exercising were reported as unhealthy practices,

"*In general terms having breakfast in the morning, lunch and dinner at proper time is part of healthy living.. Basically having a particular routine of getting up and going to bed can contribute to your health which we South Asians lack."[Arif31, 1G]*

A number of participants conceded that health is an important aspect of their lives and it should be seen in a broader spectrum of activities and lifestyle behaviours. Similar to Arif above, the participants emphasized the organization of daily routine on the basis of healthy eating and physical activity. For example, in terms of routines, the idea of eating at the right time and finding time to perform physical activity were identified as fundamental aspects of healthy lifestyle. Lack of a set routine appeared to be a lifestyle habit because of busy routines, or odd and anti-social working hours.

Many responses suggested the importance of healthy diet and regular physical activity as crucial elements of healthy living. Being overweight was mainly considered unhealthy and not much appreciated by several participants. Sabira, a female participant explained:

"In a nutshell you have to eat the right food at appropriate times and be performing regular exercise to live a healthy life." [Sabira50, 2G]

Neelofur, a mother of five children and leading a very busy life defined a healthy person as an organised person. An organised life was further explained as an endorsement of the previous discussion explaining healthy lifestyle. Neelofur communicated the concept of healthy life as:

"I think the people who can keep up a healthy routine of what they eat or how much physical activity they are doing daily are organized. This means from breakfast to dinner, you are watching what you are eating and finding time to exercise" [Neelofur43, 1G].

There should be a balance between healthy food choices and physical activity as both are fundamental for healthy living. Participants believed that keeping active and eating healthy can help adopting and maintaining a robust lifestyle.

> "*I believe our diet contributes about 80 percent towards our health and exercise is the other 20. These are the two key elements I believe that contribute towards adopting a healthy lifestyle. If we can find the right balance between these two things then we can be successful in adopting a healthy lifestyle." [Ahsan30, 2G]*

The overwhelming response to the question about the importance of healthy diet and physical activity was positive. Participants communicated knowledge and information of an ideal healthy lifestyle.

> "*A healthy living style consists of your diet, your exercise, your physical activity and your sleeping pattern as well as hours of sleep you get daily. Diet mainly consist of how many calories you intake and how many you burn off…….. eating too many fats in a day leads you to heart diseases….."[Shoaib28, 2G]*

4.2.3 Health Awareness

All participants of the study expressed some level of knowledge about what constitutes a healthy lifestyle. Healthy lifestyle comprises of eating healthy and keeping your body active, a good sleep, having all necessary nutrients to help the body acquire the requisite amount of energy as well as having daily routine of exercise. Both generations predominantly expressed some health awareness. They emphasized the importance of having a healthy diet and exercise for a better healthy life. Despite the participants demonstrating a good knowledge of healthy living, throughout the discussions the unhealthy practices and experiences were revealed by the participants. Different elements seemed to be involved in those practices which will be discussed in later sections of the findings. An awareness about un-healthy food choices was demonstrated, participants mentioned their food choices might have been

influenced by socio cultural norms and values. However, to a certain extent they seemed to be aware of what food choices are good for their health,

> "I *feel that we are aware of the fact that excessive oil in food is not good for our health however some people like to cook with a lot of oil as it looks good at the side of their plates."[Anisa30, 2G]*

Participants discussed the adaption of healthy lifestyle becomes more important in this country as compared to UK because of the weather conditions and the impact of less strenuous household work. A participant mentioned:

> "*I feel living in this country (U.K) demands extra care in diet and gym should be part of our life because life here is different from back home. "[Aimen32, 1G]*

A participant mentioned that they had to carry out regular exercise as the participant's occupation does not allow them to be active to the level they deem sufficient to be healthy:

> "*My restaurant job requires walking and lifting of things such as plates etc. There is no stretching or any running of any sort. I need to perform more strenuous exercises which increases my heartbeat and gets me to sweat." [Ali36, 1G]*

This belief however seems to differ between the second generation and the first generation, a first generation participant mentions:

> *"I believe walking is a good exercise. I used to walk a lot because of the nature of job."[Hamida68, 1G]*

If we are to compare the excerpts from the first and second generation participants, it can safely be said that the second generation is more informed with regards to healthy practices and their impacts on general health. A second generation Pakistani female participant born in the UK shared her views about self-awareness as:

"…….. *but I personally feel that to live a healthy life you do need good diet and be mentally and physically fit."[Arfa34, 2G]*

In terms of health awareness there were predominantly different views and opinions between first and second generation. Many participants from the first generation believed that lack of education and skills of modern technology might be the reason that they are less aware of healthy living:

"*We are not educated people meaning that we don't have access to the computer or internet to get health advice……lack of knowledge and information is a big issue and a hurdle to adopting a healthy lifestyle." [Mrs Kaur75,1G]*

Another Pakistani participant, a mother of five, asserted that she had very limited knowledge about healthy living before, she was simply following the ways she was taught by her mother and aunties. She added that she had never thought to get away from those traditional methods before she started researching and improving her knowledge about healthy living from a number of sources including internet and newspapers,

"*There was no awareness of healthy eating before. These things just recently came up and obviously it is taking some time for me to adopt these changes."[Neelofur43, 1G]*

In contrast, Mrs Dar said:

"*I think because the world is a global village.. Awareness is everywhere now. I don't think people living back home are not aware of what a healthy lifestyle is. It's just a matter of following it. I think nowadays everybody is aware of it."[Sajida43, 1G]*

A female participant compared dietary trends in two generations, she mentioned differences in attitude towards healthy eating in new generation despite their parents practising conventional ways of cooking,

> "*The health perception of young generation seems to be different from the old generation. The younger generation seems to have learnt a lesson from the bad habits and they are not repeating it.. children's social life as well because they have realised that it plays an important role and key to healthy life."[Naseem41, 1G]*

Unhealthy practices were seen as a health concern by some participants, however these concerns did not appear to be serious until confronted with an immediate health issue. The unhealthy practices were considered having far-reaching health consequences. A young Pakistani male participant Mr Shoaib shared his family experience saying that the older generation was not very much aware of what a healthy lifestyle is and had less or no knowledge of healthy eating. This is difficult to change as they are adhered to their long-established lifestyle. Shoaib added that they were still not very well informed about healthy lifestyles,

> "*If you talk about old generation they are still not aware of it. They stick to their traditional way of cooking. The older generation is not really aware of how unhealthy the food is. They don't exercise so they are likely to get heart disease, diabetes and high blood pressure."[Shoaib28, 2G]*

The second generation appeared to be more compatible with the knowledge about general health and health care. They described how they can get themselves involved into healthy practices and adopt a healthy lifestyle,

> "*Moving on to the food which I was eating (normal south Asian food) was full of oil, salt and butter. I knew I had to make some changes. I planned to diet for 6 months….. I used to run 2-3 miles every day. I also joined the gym.."[Rashid22, 2G]*

It was noticeable that the first generation mentioned significant changes and practices in relation to healthy living within their children. Mrs Kaur admitted that her children are demonstrating more knowledge about a healthy life.

> *"…however the next generation is very active, my children have exercise machines at home they are members of gym as well. So I think they are more active than us." [Mrs Kaur75, 1G]*

A participant argued about the importance of education and how it can make a difference in developing healthy behaviour and help people becoming more aware of a healthy lifestyle,

> "*Secondly, I believe that being healthy is something that is embedded into the kids here in school. For example, there are so many programs that run in school that create awareness around healthy food and exercises which gets everyone thinking about health and how it is an important factor which contributes towards our quality of life." [Rayyan19, 2G]*

Mr Rayyan's and Mr Ahsan's excerpts identified the important role of knowledge and shared information from different sources. They communicated that knowledge acquired from schools and internet sources can better equip a person to lead a healthy life. A healthier change in younger generation was much appreciated by the first generation, as Mrs Neelofur was happy to see the change in her children; she stated,

> "*…..my kids are at their teen age and they have new concepts of food every other day, they change their mind and try to choose healthier options in their diet… I think that our children will be more sensible in adopting a healthy lifestyle. This is because or children are brought up here and they are more health conscious than us." [Neelofur43, 1G]*

Mrs Neelofur's excerpt drew a comparison of knowledge difference between the two generations, she added the second generation is more informed because this generation was

brought up here (the UK) and the first generation who in most cases migrated from developing countries lacked that knowledge and information about healthy lifestyle.

Physical activity was considered to be crucial for living a healthy life in both generations unanimously. Being overweight was considered unhealthy and considered a risk factor towards healthy lifestyle. A balanced diet and physical activity was considered essential for maintenance of good health and weight control,

> "*I think eating healthy and doing regular exercise should be a vital part of everyone's life. I also think that people of all ages should look to eat healthy and take part in regular exercise as it improves your general health. Health is something that affects us both in the short and the long term therefore it should be something we prioritize."[Rayyan19, 2G]*

4.2.4 Perception of healthy Diet Asian/Non-Asian cuisine

'What is healthy' refers to those concepts that people associate with healthy and un-healthy food. Perception of healthy and un-healthy food was discussed by many interviewees reflecting their knowledge about balanced diet and different cuisines. They also highlighted the different cooking methods between South Asian and non -South Asian food and what they believed were the health implications of an unhealthy diet. The concept 'what is healthy diet' was incorporated into the sub-categories, 'Fats', 'Readily available', 'Non-Asian cuisine' and 'fresh is healthier'.

The word 'diet' was perceived as a short-term intense food regime to be followed in order to reduce some weight. The word 'diet' or 'dieting' appeared to be a plan which could not be followed for a long term or it cannot be adopted in daily routine. Dieting was believed to be another name of healthy choices or modifications in traditional cooking styles,

> "*Some people in our family perceive the word diet as something extreme e.g. like you have to be on healthiest options all the time."[Dawood32, 2G]*

The rationale of temporary changes in dining habits and cooking style appeared to be losing weight and body fat. It was not generally perceived as a lifestyle change but a temporary arrangement to lose some body fats and come back to the normal dining routine,

> *"They (the family) might be happy to use it as a diet for few weeks like eating Chinese food or English food and drinking warm water but not for long term. We cannot go on grilled food or boiled vegetables permanently."[Muneebah40, 1G]*

Dietary modification for an individual in the family may develop a challenge for her/him especially when other family members are not following it.,

> "*I think it just seems odd in a household if someone is pursuing a different kind of a diet, therefore this decision has to come as a family".[Dawood32, 2G]*

Smaller portions of food was considered healthy rather than having big meals, likewise missing a meal then later consuming a heavy meal was practiced by some participants, however it was not considered a healthy practice. Keeping your food portions smaller was described as the best approach if you could not resist traditional food on social events. Smaller portions of restricted food was thought to be less harmful and can accommodate diabetics. One participant with dietary restriction due to diabetes argued:

> *"I eat smaller portions of the things that are not recommended for me."[Sabira50, 1G]*

Fats were considered to be good and bad at the same time. Some participants thought fats are a good source of energy intake and a few responses indicated that the use of less oil or oil free food is healthy,

> "*For me healthy is anything that is oil free, wheat free and …anything which is low in spice. Overall the main no go area is the oil and the wheat."[Dawood30, 2G]*

Many participants believed oily foods or deep-fried food including fast food is unhealthy, although if it is homemade it is considered less unhealthy. Greens and fruits were considered healthy food; vegetables should be cooked in less oil and not be overcooked,

> *"Fast food is things like burgers, chips, pizzas etc. I think that if fast food is being prepared at home it is okay as again you know the ingredients that are going in it but if you are getting it from outside then you don't know anything about the meat or the quality of the oil." [Neelofur43, 1G].*

A Bangladeshi Participant argued that healthy food includes greens:

> "*Healthy food means not consuming oily stuff and eating more vegetables and other greens."[Arif31, 1G]*

Another Bangladeshi female participant mentioned that food which contains a high amount of spices, sugar and oil was not classed as healthy food.

> "*Healthy food is not deep fried, doesn't contain many different spices. Also things like butter ghee is not great for the body. Our desserts also high in sugar which again is not healthy".[Sabira50, 2G]*

Carbs and excessive oil were perceived as unhealthy components of the South Asian diet:

> *"Having balanced diet is important; i.e. not having too many carbs, fats or proteins and consuming all seven nutrients of food. That is what I think healthy food is".[Parmeet33, 1G]*

A perception of a balanced diet appeared to be associated with the healthy food as many participants discussed that a healthy diet is balanced. Participants clearly demonstrated their knowledge and information about a balanced diet as they perceived it,

"*I try to give my kids a variety of food. I cook vegetables for them a few times within a week and other days I will cook them meat. I also cook lentils and make sure that they have it …one day they will have cereal and the next day they will have something like toast. Also with fruits…."[Neelofur43, 1G]*

Rashid, a young Indian participant, elaborated the concept of a balanced diet and its importance for a healthy life having discussed different elements of it:

"*…..for instance eating something again and again might lead to deficiency of some other elements of food like by eating rice daily and not eating bread… so basically, diet must be balanced. It should contain proper proportion of food from each group like fats, minerals, carbohydrates, vitamins and proteins etc."[Rashid22, 2G]*

Processed food was discussed by several participants, it was classed as a healthy food by some first generation participants. It was however considered a health risk and a major contributor to obesity by second generation participants. Muneebah, a 40 year old mother sharing her views about healthy diet said she had no idea about processed food when she first came to the U.K as she thought that food quality was far better from her country of origin,

"*I used to think that food available here (U.K) was more pure than back home so I didn't think to cut down on it until I knew it was more processed which was not very healthy. However in Pakistan you get more organic food so no matter if you consume large amounts of it, it wouldn't affect you in a bad way."[Muneebah40, 1G]*

Mehar a young Pakistani female participant argued that she always tries to avoid using refined ingredients and prepare her food with natural and fresh ingredients,

"When *I cook lasagne I put lots of vegetables in it… I just use normal tomatoes; keeping it all natural …..I also think that vegetables are healthier compared to processed foods as they fill you up better." [Mehar19, 2G]*

In contrast, some participants believed that fats are healthy and crucial for a healthy body. One participant said fats are crucial and very important for bodily needs, especially for the children as they need nutrition to grow. She considered herself healthier than other siblings as she had been consuming fats in her childhood,

> "*I try to make butter 'paratha' (traditional bread made of wheat and fats) for my children …..I think it is really beneficial and gives you energy provided you have any sort of health issue. I used to eat butter and 'paratha' every day and I think my body is still strong because of that." [Saira36, 1G]*

A participant talked about curries which are a common dish in South Asian cuisine and are flavoured with various types of spices along with the flavoured butter and ghee. She mentioned that she did not think that curries are unhealthy as it contained ghee or butter ghee which she considered healthy,

> "*I think curries are not bad if you use fats like butter ghee, it is always very good for your health." [Hamida68, 1G]*

Likewise, another participant talked about ingredients which are consumed in curries which she thought were not very healthy however she thought South Asian curries were less harmful when compared to fast food,

> "*.. food we cook is healthy like lentils and stuff that is what I think healthy however we put a lot of spices and salt in it which is not very healthy. Still this kind of food is not as bad as burgers and stuff and I believe that South Asian food is better than fast food." [Parmeet33, 1G]*

The excerpts above seem to convey contrary messages. Fats consumed in fast food and food which was readily available were collectively perceived as unhealthy, whereas the fats consumed in traditional food and home-made fried food was not considered that harmful.

Having snacks and smaller portion of favourite unhealthy food as a replacement of one meal was perceived fine as it was understood that having junk food, containing same calories or probably less calories than a full meal, was not unhealthy,

> "*I think having junk snacks better than having complete meal. Its good if u are bored of eating regular diet you can have it in between."[Anisa30, 2G]*

Readily available food refers to processed and fast food described by majority of participants. They appeared to hold a perception that the use of substandard ingredients make the readily available food unhealthy, however the same food would be less harmful if it was homemade using quality ingredients. Both generations appeared to be aware of fast food, such as pizzas, burgers, fried chicken and chips. The young generation participants particularly perceived fast food as substandard and inadequate for health, they argued if the South Asian curries are considered unhealthy having used high amount of oil and spices, fast food is even worse if compared to it. However, they indicated lack of time is attributable for bad choices.

> "*I think it is even worse than our South Asian food. It is more rich in unhealthy fats and it can cause and develop diabetes and other diseases. I am not a big fan of fast food, it used to be my last choice."[Nasir32, 1G]*

> *"I don't like the way that food at fast food places like McDonalds or Burger King tastes. Also, the fact that fast food is extremely unhealthy for you due to the things that are put in it, excessive amounts of oil being one of them, also it is very processed meaning it doesn't involve natural ingredients."[Mehar19, 2G]*

Easy accessibility, affordability and availability appeared to be a big attraction for the participants. However, many participants reported less or limited availability and affordability in their home countries as compared to the UK. South Asian traditional food was thought to be better if compared to fast food. Participants compared fast food availability and affordability arguing that fast food is readily available and more affordable in the UK as compared to back home,

"*I think it's a bit easier practice if I don't feel like cooking, I would just order some takeaway. You just have to press some buttons on the phone and food is at your door."[Rashid22, 2G]*

Similarly, healthy choices were believed to be a consequence of a busy life as traditional cooking is time-consuming, hence the younger generation tend to opt for easier options. In particular, the second generation participants classed fast food as an unhealthy food however some participants mentioned if 'fast food' is consumed occasionally that is not harmful,

"*If you eat fast food occasionally it is fine but eating it daily can be problematic. There is not a lot fast food available back home, it is not easily affordable either. Here if I feel to not cook, I would just order some takeaway. You just have to press some buttons on the phone and the food on the door".[Rashid22, 2G]*

Buying fast food such as pizza seemed to be acceptable and not considered unhealthy if not on regular basis, a participant mentioned buying fast food is not a regular practice and quality of the fast food is less detrimental,

"*I don't think fast food is healthy, I don't class it as healthy food; like burgers and stuff however we order a very good company pizza but not regularly…usually we prepare Chinese food and pasta at home."[Hameeda68, 1G]*

A comparison was made by some participants between the country of origin and host country in terms of healthier food choices. They believed that fresh and organic food was reported to have more nutritional value than conventional food,

"*…..I also feel that people living in India are healthier compared to people living here. This is due to the food being fresh and organic, people going for early morning walks etc."[Amit85, 1G]*

Many participants argued that fresh and organic food is healthier, however organic food was thought to be very expensive for the average person. In many superstores 'healthy living' and 'eat well' sections are creating more awareness about healthy eating however the healthy options seem to be unaffordable for the average person. Another perspective appeared to be that 'expensive is healthier' as it was communicated that all healthy options were expensive, so the general perception of healthier food being expensive was apparent,

> "*There are an increasing amount of supermarkets that are selling more of the 'healthy living' or 'healthy options' ranges. These meals help cut down on the unhealthy stuff but they are generally more expensive meaning that while creating awareness between people of staying healthy but it does come with the higher price tag."[Dawood32, 2G]*

Organic or 'healthy eating' options were believed to be un-affordable.

> "*I would say 'expensive food' is healthy food to be honest with you, If you try to choose healthy food it is not cheap and it is very expensive….furthermore, if you go for organic fruits and vegetables they are again more expensive; I cannot afford it."[Neelofur43, 1G]*

Non-South Asian food was considered healthy by some participants due to less use of oil and the amount of spices. Another reason was that other cuisines were thought to be healthy because of the higher use of vegetables in their dishes. Simple techniques for cooking and use of more natural ingredients was appreciated by some participants:

> "*When I cook, I cook non-South-Asian foods for myself like lasagne or something like that. I feel that this is healthy" [Mehar19, 2G]*

> "*We are trying to bring changes in a way that we try to cook different cuisines and make recipes quick and as simple as we can."[Ali36, 2G]*

Participants mentioned English food when they talked about non-Asian cuisine however, they did not seem sure about what English food actually was. A classic example used for English food was the food containing less oil, less spices and not overcooked,

> *"I don't know what typical English food is but when we look at it, it is food with no spices, it is completely different. ….the way the food is cooked is completely different from the way we cook as we put oil and spices. I find English food 'plain', even my daughters would have mash potatoes, boiled vegetables and lasagne and they would find there to be less taste in it."[Arfa34, 2G]*

English food appeared to be unpopular with the participants. An insipid and unpalatable expression seemed to be associated with English food, the food was described as "less oily" and less spicy, hence it was considered healthier but vapid,

> "*At that time there was no "desi" food (traditional food) available to us so our diet only consisted of English food. I personally didn't like it very much; this is still the case after being here for 60 years. I prefer 'Desi food' (traditional food). However, when it comes to cutting a few pounds I don't mind having English food."[Mrs Kaur75, 1G]*

4.2.5 Conclusion

The analytical process revealed a range of beliefs from South Asian research participants about health and illness. The perspectives of health and well-being were encompassed by the notion of having no health issues, being organised, being informed, and the perceptions of healthy diet and diet came under the umbrella of this main category. The perceptions held by the South Asian participants about health and healthy living may be the projection of their health behaviour. They perceived a 'healthy person' to be one who is without any health issues, is organised and they talked about how improved health knowledge and information can influence individual health behaviour. The participants communicated the perception of healthy and unhealthy food, 'reduced fats', 'non-Asian cuisine' was perceived healthy and all readily available, fast food was considered unhealthy foods, although fats used in traditional cooking were perceived to be healthier than of those used in ready meals and fast food. In

depth exploration of the participants' perspective about health provided an increased understanding of South Asian participant's beliefs and perceptions of health and well-being and also assisted to identify their thinking about the nature of healthy and unhealthy practices.

4.3: Lifestyle experiences and practices

The participants talked about their current attitudes, behaviours and thoughts towards living a healthy lifestyle, such as what constitutes a healthy diet, and the importance of physical activity.

4.3.1 Being thoughtful about food modification

Participants demonstrated a fair amount of knowledge about what a healthy diet should be like and they appeared to be very keen to make healthy dietary changes, however they seemed to be unsure on the method to bring about those modifications, showing a relationship between their cultural norms and healthy guidelines,

> "*I know oil is a key ingredient in our curries so I don't know how to find an alternative way of cooking curries however I think we should cut down a bit and limit it down and use less oil. As you can't have curry without oil"[Arfa34, 2G]*

Adaptations and alterations were thought to be crucial for making South Asian food healthier, however modification in traditional cooking was considered difficult by many second generation participants. One aspect of those concerns appeared to be the habit and taste which was developed over time and the participants did not want to lose the flavours associated with their food for a long period of time. The use of oil appeared to be an exception for traditional cooking. One participant mentioned:

> " *..Curry is not bad if we use less oil/ butter and amount of spices like red chili but we can use green chili rather than red. Basically we can make our curry healthy using*

alternative ingredients….. to be honest I haven't brought any changes in cooking style except cutting down on the amount of chilli as it is not good for you health…….but of course we cannot make our curries without oil."[Saira36, 2G]

Another participant added:

"*Sometimes we use red chilli powder in food while we can use green chillies instead. So we can substitute one thing with something else….it can be like trying to reduce the amount of spices, salt and oil."[Rashid22, 2G]*

Moderation and food modification were thought to make traditional food healthier. Dietary adjustments in cultural foods could reduce the health risks to some extent as poor eating habits are the key contributing factors, as many participants admitted and acknowledged that appropriate alterations in cooking methods should be followed as a first step towards healthy eating,

"*I believe most of South Asian dishes are unhealthy because of the use of excessive fats, spices and high amount of sugar……..Of course there are newer ways of making healthier substitutes for these dishes."[Rayyan19, 2G]*

"….there are healthier alternatives that allow you to still enjoy things like your chapati. For example using brown dough instead of white dough…….but if you are eating curries, look into healthier ways of cooking it or adjusting its content to make it healthier…. like using less oil when cooking which is probably a key element towards making the curry a lot healthier…..so rather than frying it you can maybe look into boiling it instead.."[Ahsan30, 2G]

Many responses reported the need for dietary modifications within traditional cooking, by making it less harmful to health. A young Pakistani participant suggested:

"Yes, excessive oil makes the food unhealthy,….but I think instead of frying we can bake them in oven and put little drops of oil on them."[Anisa30, 2G]

Family members' health issues seemed to be the source of improving information about general health. Salma (50) talked about how her family member's health issue became a source of information for her and motivated her to adopt some changes. Salma replied to the question asking 'where she got all the health information from':

> "*I got it from my life experience. My husband uses more spice, especially chilli and he's got ulcers in his stomach because of that, my mum and dad have blood pressure issues because they used to put too much salt in their food, there are some family members who used to eat more sweets and got diabetes so I learned that too much sugar and salt are not good for health."[Salma50, 1G]*

4.3.2 How keen the two generations are on physical activity

Being physically active was perceived important for a healthy life by the majority of participants irrespective of their age, however they did not have a proactive approach towards an active life. Participants talked about their views about physical activity and mentioned that exercise plays an important role in improving quality of life,

> **"***Exercise can drastically improve your quality of life… any type of activity that gets your body moving is exercise; things such as running, walking fast, walking up stairs and rope jumping etc. Anything that makes you sweat."[Khalid49, 1G]*

A view that physical activity is 'harsh' was communicated by some participants; the fact that extreme workouts can cause energy deficiency. A Pakistani participant argued that she had been very active in her young age and she thought she had misused her body energies and that was why she was suffering from knee pains,

> "*It (being extremely physical active) didn't bother me when I was young however since reaching middle age I have started having health issues which is probably due to me being over active when I was younger."[Hameeda68, 1G]*

"I haven't been regularly exercising since last year due to my health condition..I used to go for a walk five days a week but I broke my routine due to my illness as my body runs out of energy at times and my body becomes very weak…I can't keep up my routine of walking."[Naseem41, 1G]

The two quotes above indicate specific lay concepts of health and illness, and in particular ideas about the way the body functions. Health issues or ongoing health conditions was a significant reason for limited physical activity undertaken. Many respondents felt unsure about what kind of physical activity they should adopt as they indicated concerns that their illness or health condition might worsen due to increased physical activity. Less or no physical activity was justified and defended by ill-health by some first generation participants. Limited knowledge about exercise and physical activity was reflected by some responses from the participants. Many first generation participants were apprehensive about exercising, particularly concerned that breathlessness is a sign of illness caused by exercise. They expressed some lay perceptions about doing exercises and believed that it can make their health condition worse. Although the first generation participants understood that exercise is beneficial for maintaining good health, this was not reflected in their behaviour,

"*I never thought about exercising as I have asthma which makes it quite difficult for me to breathe during intense exercise. I have had an asthma problem for the past 36 years, this meant that I couldn't partake in any exercise……because of asthma I cannot do it. Nonetheless I still can't take part in intense and demanding exercises such as running or jogging."[Mrs Kaur75, 1G]*

When followed up with questions such as "Have you consulted with any health professional about any other alternative exercises to be best suited to a person such as you that has an asthma condition?" The participant responded:

"*.. my doctor did advise me to be more active but I feel as you get older you are not able to do much exercise." [Mrs Kaur75, 1G]*

A participant who was diabetic, revealed that she could not join the gym or go swimming as a result of obtaining an injury as a result of an accident. She expressed her likeness for swimming however she could not carry on with it due to her suffering from a back problem,

> "*No I did not join gym. I had a car accident and have had a problem with my back, so it's better for me to walk or go for swimming. I think it's a more natural way to maintain our health."[Sabira50, 2G]*

The second generation seemed to be more influenced by predominant public health discourse and adherence to exercise and physical activity, although they perceived other commitments an obstruction in achieving this goal. Involvement in physical activity seemed to be often compromised by other personal and family commitments. Physical activity was given less priority and less determination was demonstrated towards it, getting out of daily routine and spare some time for exercise was considered hard,

> *"I could not make my routine up, sometimes you think that it is cold I should not go, next time you feel better to stay home and finish off some left over house hold work so these sort of excuses stop me from working out."[Aimen32, 1G]*

Many participants suggested they had to be more physically active in this country as they generally thought they were more active in their country of origin as compared to the UK due to the more physical nature of everyday life and weather dissimilarities. The UK's comparatively colder weather was accredited with the feeling of additional hunger resulting in the consumption of food which might be attributable to weight gain. The second generation demonstrated a good understanding and awareness of physical activity and recognised the adverse consequences of sedentary behaviour. Young participants reported engaging in gym activities however it did not seem to be consistent. When questioned on how often they visit the gym, one participant responded:

> "*It depends on when I get time. I might go after I come home from work. On the weekends, I can go after college if I get the chance for about an hour."[Mehar19, 2G]*

Both groups predominantly considered physical activity as vital for a healthy life and engaging in any kind of exercise was thought to be crucial in the context of living in the UK where chances of sweating were slim due to cold weather,

> "*We have to take part in physical activity… we need to be more active in this country there are higher chances of becoming obese as compared to Pakistan."[Khaleel76, 1G]*

> "*.. exercise is very important and we should be exercising regularly, especially living in the UK as here you don't sweat as much because of cold weather and your body becomes stiff and best way to deal with that is to exercise."[Aimen32, 1G]*

A young Pakistani male participant said:

> "*…it is very important especially in this country (UK)as it becomes extremely important because of the weather being cold, you always feel hungry and the amount of food you eat requires physical activity."[Ali36, 1G]*

Young participants held the view that being active could reduce the health risks. Physical activity was associated with burning of calories and losing weight, inactivity and sedentary behaviour was related to the higher chances to becoming obese. Exercise was believed to be a good source of stress relief,

> "*I think it helps reduce my stress also like I can go to the gym and take out any work stress that I have.."[Saira36, 2G]*

Despite understanding the importance of physical activity, many respondents were not engaged in an organised and structured form of physical activity. First generation participants especially showed a disinterest in adopting physical activity except for walking occasionally. Many female first generation respondents revealed that after a hectic routine during the day they just want to sit and relax instead of going outside and walking,

"*My leisure time activity is sitting down on sofa with the cup of tea and watching soaps on TV. At that time I don't want to get disturbed by anyone."[Neelofur43, 1G]*

4.3.3 Physical activity forms and patterns

Many participants revealed that they adopted different forms of exercises to keep themselves healthy, however their physical activity pattern was irregular. Some first generation participants confessed to not having any kind of physical activity for different reasons, mostly due to poor health,

"The only exercise I have ever done is occasionally going for a swim and walking."[Amit85, 1G]

Exercise equipment and gyms were not popular forms of exercise for many of the first generation participants. They shared their views and experiences translating their physical activity attitudes; showing less priority given to exercise among this age group. Salma, a Pakistani female participant, argued that exercise machines occupy plenty of space at home so this idea was not much appreciated among South Asian participants,

"(*Exercise machine at home is a good idea) if you got place in your home then you can keep it in, it is good but I don't have enough space in my house, all I can do is put an exercise machine in my garden but only for summer, not in winter."[Salma50, 1G]*

Walking is an acceptable and feasible physical activity for most of the participants, however they decribed no regular patterns of walking. Even for the second generation participants, use of exercise equipment was thought to be hard because of a lack of a set life routine and minimum interest shown in solo physical activity,

"*I have never visited a gym in my life, neither have I stepped a foot on any type of exercise machine. Walking and the breathing exercises have been the only exercise that I partake in."[Mrs,Kaur75, 1G]*

Despite poor health, a few respondents mentioned they still engage in different physical activities but not on a regular basis. A 'sauna' was an alternate to swimming one respondent explained:

"*I used to go to swimming I love swimming... Sauna as well ….I engage myself in such activities to keep myself active."[Naseem41, 1G]*

A number of participants described incidental activities as physical activities and they thought these activities were a good exercise and they didn't need any extra regular physical activity because of them. They suggested that these daily household activities such as sweeping, washing and shopping were a kind of exercise,

"*I used to walk from the front door to the kitchen; that was plenty of walk having six to seven rounds from the front door to the kitchen."[Hameeda68, 1G]*

The busy nature of their employment was thought to be a good form of exercise by many participants and adopting an exercise or physical activity regularly was not needed if maximum body movement is involved at the work place,

" I used to walk a lot because of the nature of my job as I had to run through from one room to another to see the clients…..I used to catch a bus and there is good walk to bus stop from my house and then again from bus stop to the workplace. I try to walk on regular basis quite a few times when the weather allows me."[Hameeda68, 1G]

Walking to the park with children and picking and dropping them to school was classed as an exercise. Sometimes joining the sports activities with their children and playing with them

was the only physical activity many parents performed, however all of those activities seemed to be occasional and were not carried out on a regular or daily basis. This attitude mostly prevailed in the second generation indicating that views might be shaped by the beliefs of their parents who typically believed that any form of body movement could be a substitute of exercise,

> "*..I take my child out for a walk, I take him for swimming... I only walk in the pool with him.. it's also a kind of exercise."[Anisa30, 2G]*

A participant noted that you burned calories when you run around with your kids, it acted as an exercise for the parents:

> "*I also look to be pro-active with things. This could be things like playing with my kids, or taking them to the park etc.."[Ahsan30, 2G]*

Walking was most commonly considered feasible and accessible by the respondents. It was perceived more culturally appropriate and acceptable by the most South Asian participants. As many participants mentioned they never visited a gym or engaged in a regular exercise, routine walking was considered a form of an exercise.

> "*I have never visited a gym in my life, neither have I stepped a foot on any type of exercise machine. Walking and the breathing exercises have been the only exercise that I partake in."[Mrs Kaur75, 1G]*

A participant reported that walking was the only feasible physical activity which would fit in her busy routine:

> *"I have never really taken any part in any physical activity as such but I did start walking about two years ago…. exercise can reduce chances of disease. I picked walking as it is quite easy to do and it can fit in my busy life."[Ankita44, 1G]*

Some respondents stated the importance of walking and spoke of how this could be performed daily; such as going to work by means of walking instead of catching a bus or using their cars but they were neither sure about how many days of the week they were supposed to do it nor did they understand the how long the duration of their walk should be,

> "*I take the train to my college meaning that instead of catching a bus I walk to the train station which is roughly 1.7km and then walk another 1.4km when I got off near my college."[Rayyan19, 2G]*

The added benefits of daily activities were discovered, meaning that physical activity and exercise were also easily achievable through everyday activities such as shopping. Walking between shops or movement within the superstore from isle to isle and lifting heavy shopping bags was believed to provide a workout to burn calories. Walking and avoiding any type of transport when deciding to go to shopping was considered to bring health benefits.

> "*I get my walking done when I go for shopping, take kids out etc. If it comes down to it, I prefer walking rather going by car."[Arfa34, 2G]*

Daily chores and routine work were perceived as a flexible approach to exercise, even a more positive experience,

> "*I get exercise through my daily chores such as shopping. I believe doing a few laps in between the aisles of a supermarket is good exercise for a person my age. At the end of the day its burning calories and that's the purpose of doing any exercise…Even just doing window shopping might work."[Mrs Kaur75, 1G]*

Many participants named simple activities like taking the stairs, parking further away from the shops and doing household chores as things that can all count as a workout.

> "*Before I use to walk to pick up my children but now I have a car. I still try to park it further away so I can get some walking into my daily routine."[Arfa34, 2G]*

Exercise or physical activity did not appear to be regular in the participant's leisure time, as such there was an inconsistent approach towards the uptake of physical activity indicated by the participants. A 43 years old Pakistani woman said;

> "*I did not make exercise a regular thing, as I walk to my child's nursery so I think that is enough exercise."[Sajida43, 1G]*

Walking appeared to be a preferred way to be physically active however an inconsistent trend was noted, older participants were more likely to have irregular patterns of physical activity,

> "*I usually don't count it but in summer I walk more as compared to winter. It is not a set pattern. I mean if the weather is nice I can spend an hour walking."[Salma50, 1G]*

Many responses reflected not having enough information about the recommendations of regular leisure time exercise and how to meet physical activity guidelines in terms of how much time they should spend on their physical activity,

> "*I think running is the best exercise and it should be for at least 10-15 minutes to make you sweat."[Saira36, 2G]*

4.3.4 No health issues, No worries

An interesting phenomenon arose that 'It is ok to eat unhealthily if you have no health issues', participants talked about their belief 'If you are healthy, having no health issues or warnings, you don't have to care about what you eat'. Participants admitted they never thought to change their lifestyle when having no health issues. A general demeanour appeared that people having health issues should abstain from certain food to avoid further complexities. A common and general perception of a healthy person was those believed to be able to

consume any type of food with no restrictions. Saira, a female participant talked about 'being a patient' which referred to people who had diabetes or other heart problems:

> "*If you are not a patient and you don't have any health issues, then you cannot eliminate or cut down these things from your diet… I think a healthy person needs all sorts of nutrition however if one has got health issues then he/she should cut down food according to his/her needs. A healthy person should everything."[Saira36, 1G]*

Similarly, another participant mentioned that only a person who has had health issues should abstain from unhealthy food. It indicates a common belief amongst South Asian participants that unhealthy food should be avoided in case of a having health problem, and food choices are made according to one's medical conditions,

> "*I think if a person has some sort of health issue, he or she should avoid unhealthy eating.."[Parmeet33, 1G]*

A first generation Pakistani participant who works as a taxi driver, did not find it important to be an active person purely because he thought there was no need to if you were fit and healthy and gave an indication through the conversation that if something major in terms of health comes across that would be the time to bring about change,

> "*I feel my cholesterol levels aren't too high which means I don't find it necessary to exercise."[Khalid49, 1G]*

It appeared to be a cultural belief not to worry much about health if you have no health problems. Unhealthy behaviours or lifestyles seemed to be carried out until some serious health issue arose. Again, this belief refers to the notion that avoiding unhealthy food should only be practised in the event of a health problem,

> *"Flavour of the food is more important than anything, as far as health is concerned, we will see into it if any issues arises with regards to it."[Aimen32, 1G]*

Dietary modifications or bringing about change in food practices appeared to be less important and associated with the solution of a certain health problem such as weight gain or maintaining body shape. Food and diet changes were not seen as significant in terms of daily lifestyle practices,

> "*But generally speaking I am not really fussed too much about healthy cooking and being healthy……. I have been at the same weight for quite a while now, it does not matter if I eat healthy or unhealthy foods my weight just stays the same". [Mehar19, 2G]*

Respondents stated that their weight gain can influence their eating habits and can be a cause to bring about change. Responses indicated an imprudent attitude towards the turning point in terms of healthy dietary change when some participants revealed there was no need to change eating habits if you are fit and well, however you might need to think about it when you become obese,

> *"…an indicator for me would be if I feel like I'm overweight, only then I would take upon much tougher measures in terms of my health."[Ahsan30, 1G]*

Only an obese person in the family is expected to change his/her diet pattern whereas the rest of the family would like to enjoy their normal traditional food,

> "*My dad has five sisters at home. Two of them are really obese, so my grandmother used to cook separately for them. They called it diet. But actually it was not, but they prepared something different for them from the rest."[Rashid22, 2G]*

For some participants weight gain was a great worry and a substantial point of motivation as the health consequences of obesity were believed to be immense.

> "*Weight gain was a big worry for me and it gave me motivation to think about healthy living... When I gain weight I feel less active and become breathless when I walk, I also get bad back and bad knee pains because of it. If you are not over weight it is good for your health..*"*[Muneebah40, 1G]*

As analysis progressed and sensitivity developed across different cases towards how South Asian people reported their health behaviour, a 'phenomenon of experiences and practices' was developed and integrated with existing data. Analysing participants' experiences and practices is congruent with Charmaz's (2004) claim that a grounded theory study accounts for how participants construct meanings and actions towards a phenomenon. To appreciate what is happening in a setting, we need to know what things mean to participants. Meanings render action and intention comprehensible. Actions can make implicit meanings visible. We observe our research participants grappling with making sense of their lives and then we grapple with them trying to do so (Charmaz, 2004, p981).

4.3.5 Conclusion

South Asian participants lay stress on the need to change dietary habits and some of them shared their experiences as well on how they bring about modifications in food preparation. They emphasised the importance of physical activity for health, however some first generation participants expressed apprehensions and misconceptions for being active. Daily activities were generally thought to be enough and extra workouts were considered harsh and energy consuming. 'Taste' appeared to be a major determinant of food choices among the participants and bringing healthy changes in the lifestyle was viewed non-essential in the absence of health issue.

4.4: Impact of Personal Characteristics on Health and Healthy behaviour

Health behaviour can be influenced by several factors including personal beliefs and attitudes, as well as social and cultural determinants. These factors can play a role as a facilitator or as a barrier in adopting a healthy lifestyle. This section is concerned with those personal factors

affecting an individual's health. The participants reported personal traits as facilitators and barriers in adopting a healthy lifestyle. They talked about different elements of inducement and intrinsic and extrinsic motivation. Focused codes such as 'busy life', 'lack of willpower', 'tiredness', 'information a motivation' were examples of coding which the category was built around. Comparative analysis further identified the South Asian participant's behaviour and what they learnt within the context of their perceptions of health. Cultural, religious and community level factors may also influence lifestyle behaviour.

4.4.1 Lack of motivation and motivational factors

Lack of motivation was noted by participants. When asked a question on how much effort they put to practice a healthy and balanced diet, a Pakistani first generation participant said:

> *"I don't do much about it, I just try to use more fruits and vegetables. I try doing it every day but I do miss sometimes because of house hold work and other commitments or you just forget".[Salma50, 1G]*

Lack of or less determination with regard to engaging in healthy activities appeared to be a prime reason among South Asian participants, irrespective of the generational gap. Participants' responses demonstrate lack of motivation as well as lack of desire towards exercise and physical activity. These activities seem to be less important, less enjoyable and incompatible with their daily routine. It does not seem to be congruent with their life goals and core values. The participants confessed that they started to get themselves engaged in healthy activities such as gym or sports, however they did not appear to persist due to lack of determination. Participants from both generations seemed to be knowledgeable and realised the importance of exercise for health but their motivation appeared to be less intrinsic. Having low intrinsic quality of motivation seemed to be a significant barrier in engaging in physical activity. It might indicate the hierarchy of preferences in the life of a South Asian where exercise seems to be less prioritised. One participant asserted,

"I have few things at home, I used to have a bike and my son has got some exercise machines, it is like my weak point and I cannot do it. I know physical activity is good for you but I don't do it." [Saira36, 2G]

The second generation also communicated less motivation towards adopting a set pattern of physical activity:

"We used to have a treadmill but we used to hang our clothes on it instead. It never really works. There has to be change of lifestyle to allow that 1 hour of exercise rather than just then just casually jumping on the machine; there has to be a clear change of mind-set."[Dawood32, 2G]

In both data excerpts, the participants demonstrated how a lack of motivation affected their behaviour. Saira acknowledged the importance of physical activity for good health, however she identified her weakness about making a firm decision about it. In the second excerpt, Dawood demonstrated a lack of determination and consistency which led towards inactivity. Losing energy was associated with physical effort. Less body movement was connected to saving bodily strength. This notion was evident amongst first generation participants,

"I used to walk a lot ..It didn't bother me when I was young however when I reached my middle age, I started having health issues and only then I realised that I have over used my energies." [Hameeda68, 1G].

"Not quite.. I feel as you get older you are not able to do much exercise." [Mrs Kaur75, 1G].

First generation participants mentioned that exercise was not suitable for their advanced age despite the doctor's advice. Physical activity was seen as less enjoyable and boredom was another cause of the second generation being less motivated towards working out, as one participant said:

"I did have a treadmill, I used it for a little while but over time I got bored of it and never bothered with it again so I gave it to my sister-in-law".[Arfa34, 2G]

Arfa talked about how she became informed through different channels about a healthy lifestyle and was determined to make a healthy change in her life, however she did not enjoy it and decided to quit. This phenomenon indicates that despite possessing adequate knowledge about a healthy lifestyle, information, willingness for change and intrinsic traits have a great influence on health behaviour and act as a barrier towards these healthy changes. Lack of interest and motivation was exhibited to take on new knowledge and skills which might be supportive in engaging in healthy workouts. New skills such as swimming and sports were less likely to be adopted by South Asian participants despite of the wide range of opportunities available to them in the UK:

"I tried to learn swimming once but I did not become good at it so I gave up."[Hameeda68, 1G]

Another participant mentioned:

"*My husband brought exercise machine but I really don't like this equipment" [Sabira50, 1G].*

Some responses were indicative of the generally low importance given to exercise in the South Asian group, evident in both generations. Many reported regular exercise is at the bottom of their 'to do list' and other household responsibilities are their top priority. This might indicate that their daily routines already provide them with the required physical activity. This attitude indicated the 'lack of determination' towards exercise and physical activity,

"I become very busy in daily life doing house chores and spending time with children. My belief is that the time I will be spending at gym, I should give that time to my house

chores, this is a typical Asian mindset that house chores are as equal to the exercise, we don't tend to do regular exercise because of it".[Aimen32,1G]

'No exercise' was needed if you are in a good healthy state. Some responses demonstrated a notion of 'we will cross that bridge when we get there'. A similar attitude was indicated by the participants when they stated that it is okay to consume unhealthy food in the absence of any health issue,

"I am not active as I feel at this point in time I don't need to exercise regularly… my cholesterol levels aren't too high which means I don't find it necessary to exercise"[Khalid49, 1G]

Khalid's response demonstrates the 'belief' that exercise or any sort of activity was not needed if there were no health concerns. This attitude seemed to strongly influence health behaviour, as Khalid described that his cholesterol level was normal and normal health conditions did not require exercise. Participants mentioned being surrounded by household responsibilities and other preferred chores; exercise seemed to be less preferred. It was believed there were plenty of opportunities to carry out physical activity but because of the other commitments it was not possible,

"(For exercise) I just don't have enough time in my schedule to fit it in."[Neelofur43, 1G]

The second generation participants tend to be more interested in physical activity, some responses indicated enthusiasm towards gym and some suggested otherwise,

"No, I think you become lazy at home and also you need a proper environment for these exercises which you cannot get at home. You cannot get a set routine for the exercise." [Nasir32, 2G]

Some responses indicated less interest in gym and more towards other form of exercises. A Bangladeshi young participant expressed his disapproval for gym and preferred walking or sports as he thought it was more enjoyable than the gym,

> *"I go to work by walking and I believe playing sports is better than the gym, I joined the gym once however I did not enjoy it. I prefer walking or sports...I really enjoy it."[Arif31, 2G]*

The second generation participants seemed to be more keen on taking up exercise and physical activities, however the gym did not seem to be popular among the younger generation either. Sports and other physical activities were considered more fun than the gym. Gym workouts such as repetitive and meaningless movements create lack of motivation as reported by the young respondents, however sports activities engage the mind and for this reason it makes the work-out more competitive and interesting,

> *"Gym sometimes gets really boring. Once you get used to it's hard to focus on same thing every single day and also you have no competition in gym unless you have someone with you."[Shoaib28, 2G]*

Outdoor physical activities appeared to be more enjoyable than gym workouts. A young participant expressed a feeling of being locked up inside the gym being less enjoyable however going outside for a walk or running was deemed to be more 'fun',

> *"If I am running I want to go outside and run, not in on a treadmill locked in a building."[Rayyan19, 2G]*

A thirty-four year old Pakistani participant communicated her lack of interest in joining a gym. This reveals a lack of acceptability of formal forms of exercise among South Asian participants. Walking particularly appeared to be something that most of the female participants felt they could incorporate into their busy routines,

"I personally can't be bothered with gyms; I don't think they are for me. I love to go out and walk whether it's for shopping or whatever reason there is." [Arfa34, 2G]

Information seeking and increased knowledge about healthy eating was deemed to be a key influencing factor for an individual's food choices. One participant mentioned that she used to have limited knowledge about healthy living:

"Now we get to know more stuff about health and food so I think that's why we are trying to make a change in our lifestyles".[Arfa34, 2G]

Like many others, Naseem demonstrated knowledge and awareness of healthy living which appeared to be a motivating factor in bringing about healthy change in her life. She discussed that she had witnessed unhealthy practices in her family and this is how she increased her knowledge about health and became aware that her family had been involved in unhealthy practices for a long period of time. This appeared to be a strong motive towards her lifestyle change,

"I don't know how I adopted it however I realized somehow and got awareness of healthy eating and importance of an active life." [Naseem41, 1G]

Participants implied that it is very important to think about the next generation, and that we should be more practical in terms of adopting healthy eating habits. In order to achieve this goal many participants indicated that setting a good example of healthy eating for their children, acts as a significant motivator towards switching away from unhealthy dietary practices,

"I believe that it is important to get your kids into that mind frame that they shouldn't be eating all these unhealthy foods."[Ahsan30, 2G]

The second generation demonstrated even more in-depth awareness, knowledge and expertise towards health and well-being. Many participants conveyed what a healthy life

consisted of and how unhealthy practices lead to lifestyle related diseases. They also communicated the importance of leading a healthy life, regular exercise and balance between maximum calorie intake and fat burn. Developing more awareness seemed to be a significant source of motivation to bring about healthy change in second generation participant's routine,

> *"A healthy living style consists of your diet, your exercise, your physical activity …taking too many fats in a day mainly leads you to heart diseases which is not good for." [Shoaib28, 2G]*

Many other young participants presented the willingness and acceptance for change as they expressed their huge concern for the consequences of unhealthy practices and being ill-informed. Engaging in unhealthy practices was admitted by several participants, however recognition of the adverse outcome of these practices made the participants realise and think to change them, although it was not thought to be easy,

> *"..it is very difficult because in the UK there are a lot of food choices out there and a range of food variety ..we used to go out to KFC, McDonald but recently we have stopped that."[Arif 31, 1g]*

Social connection through exercise or sports appeared to be a big motivator for carrying out physical activity. A number of responses reflected that doing exercise with friends becomes great fun and is a great way to keep motivated. They implied that you are more likely to encourage each other and bring out your competitive side when you exercise with a friend,

> *"With friends it's more fun……if you are surrounded by people who are active you tend to be more active yourself." [Rashid22, 2G]*

Exercise, walking or gym can be challenging sometimes and someone can easily lose interest, however there are less chances to get bored when you have a workout 'mate'. Exercising with a friend can be a huge benefit as compared to doing it on your own,

"I cannot go alone ..I don't like going on my own, even if I go to the park for a walk. I always prefer going out for running and jogging with someone, not on my own" [Nasir32, 1G]

Sports sessions were a great opportunity to catching up with the friends and old mates which makes physical activity more fun. A participant said he preferred playing sports because the presence of friends made exercise more interesting and enjoyable,

"I enjoy sports because along with the exercise you can enjoy the company of your friends which makes it more enjoyable." [Arif31, 1G]

Ahsan argued that exercising with the friends gives you a chance to see each other and is a good way to maintain interest:

"The motive behind playing football was that my friends and I got together… main motive behind that was to socialize." [Ahsan30, 2G]

Some female participants argued that having the company of someone was crucial from their cultural perspective as the feeling of safety was associated with it. Going out for a walk on longer routes was not very acceptable in South Asian culture, however it was considered safe if accompanied by someone. Another female participant expressed her concern with regards to going out for a walk on her own. This became an obstacle and barrier for her physical activity due to not finding someone to go out with:

"*I don't feel comfortable going out on my own and children are too busy in their own activities hence cannot give me company for a walk." [Aimen32, 1G]*

The social environment played a significant role towards promoting healthy eating behaviour. Knowledge of healthy diet also played an important role in developing of healthy dietary behaviour and group pressure was expressed to be an influencing factor of individual food

choices. Some participants emphasised the importance of the impact of fellow workers in shaping of their eating behaviour. Respondents explained that their eating behaviour was influenced by their colleagues,

> *"When I go to work my colleagues would have maybe a sandwich and fruit whereas I would have a large portion of rice and two or three different curries."[Ankita44, 1G]*

Interaction with a different culture acts as a social determinant of food choices, participants also explained that they brought a change in their eating behaviours due to being in different societies and cultures,

> *"My children started going to grammar school and they became more aware of the English diet and started enjoying English food." [Amit85, 1G].*

4.4.2 Laziness, tiredness and lack of time

Lack of self-discipline, and laziness were commonly reported as a barrier by most participants. In particular, lack of time and being occupied with household work were major barriers communicated by the second generation. An intrinsic barrier - 'tiredness' - was to be a deterrent to physical activity participation and led towards inactivity. Ankita a nurse who migrated from India to the UK stated,

> *"…We do have equipment at home but to be honest I don't use it. I think it just comes down to laziness" [Ankita44, 1G]*

> *"Earlier I mentioned my lack of time but it can be classed as laziness".[Dawood32, 2G]*

Laziness appeared to be a common intrinsic factor that had a great influence on partaking of physical activity among South Asians. Anisa, a young Pakistani participant, demonstrated

knowledge regarding the importance of physical activity for health, despite this she admits that laziness acts as a barrier in terms of exercising regularly,

> *"…I think it is the laziness or I get tired too quick; that's what stops me from doing physical activity'[Anisa30, 2G]*

Some regarded their busy working day as very active because of tasks such as shelf stacking, lifting and carrying boxes. Feeling tired after a busy working day was perceived as a common barrier which leads to a higher risk of limited physical inactivity. This notion again is indicative of busy routine perceived as an alternative for exercise. An Indian male participant who worked as a postman argued,

> *"Currently because of the work I do, I do not have the time to do a lot of other stuff… because I am too exhausted after my work and my feet and legs hurt badly so I prefer staying at home and resting".[George45, 1G]*

An external barrier 'lack of / no time' was reported by most of the participants in both groups. Failure to achieve effective time management was a major determinant of sedentary activities and less participation in exercise. Working women holding multiple responsibilities expressed less motivation towards physical activity due to intense work load and lack of time,

> *"I had bought an exercise bike but I don't have time to use it. I run a business and have no time…" [Saira36, 1G]*

The young participants however mentioned lack of time as a barrier to physical activity due to entirely different reasons. A narrative was expressed by young participants that electronic media such as TV, computer and video games, especially traditional non active video games seem to be a major cause of less activity or sedentary behaviour. Young participants conceded that video games are their popular leisure time activity and consumes most of their spare time, hence they did not get enough time to engage in physical activity,

"We live in a world where entertainment systems and platforms like TV and video games take up most of our spare time. This creates very little time to take upon more productive things such as working out" [Rayyan19, 2G]

Spare or leisure time was reported to be consumed by other favourite activities whereas physical activity was less prioritised. An exercise is probably perceived as a hectic activity hence not a popular choice between the participants after performing household responsibilities,

"My leisure time activity is sitting down on sofa with a cup of tea and watching soaps on TV." [NeelofuR43,1G]

"….things like internet and social media, these things that keeps you away because now we spend more time in using mobile phones, the internet etc.. that you get less time to do healthier activities"[Sajida43, 1G]

A busy routine was perceived to hinder their ability to carry out an organised and patterned exercise. They did not feel that a regular physical activity could fit in their inflexible routines and that is why the exercise routines seemed to be inconsistent. A busy lifestyle in South Asians was believed to be a significant barrier, a typical mindset of having too many family commitments was believed to be attributable to less activity or inactivity among this group,

"I haven't got the time to do any exercise due to work commitments. I have too many restrictions on me so how can I go to the gym?" [Ali36, 1G]

4.4.3 Resistance is hard

Accepting dietary change becomes difficult as the long-established eating habits are embedded within the South Asian group's eating behaviour. Many responses indicated a number of participants admitting that it was not easy to break away from the deep-rooted traditional practices,

"I think it is quite hard for South Asians to switch away from their unhealthy diet as they've grown up eating that food".[Dawood32, 2G]

As explained, it was important to modify eating habits and alter the food choices for these participants. They conceded that they can make some adjustments in their cooking style however they also mentioned it would be difficult with respect of giving up key ingredients from their diet,

"No I cannot give up spices and oil completely because my taste for them is much developed" [Nasir32, 1G]

Taste compromise was deemed to be a prime issue when it came to adopting new ways of healthy cooking. Many responses were suggestive of flavour preference over health. Changes to some extent were acceptable but not up to that point where those changes might pose a risk to the conventional distinctive taste of the food,

"I prefer taste as we are used to of high levels of spices in our food." [Arif31, 1G]

A response by a Pakistani female participant to the question "Do you prefer taste or your health":

"I will go for both (cooking styles)…you can make it rather healthier by changing the way of cooking but you can't stop or give up traditional ingredients completely." [Salma50, 1G]

The participants demonstrated good knowledge of healthy food and the importance of a balanced diet for a healthy life. They acknowledged some unhealthy elements of South Asian food and admitted that the way of cooking should be altered, however it seemed to be less practical in real life for most of the participants in both groups. A young Bangladeshi

participant expressed his knowledge of a balanced diet however he revealed that he was not following healthy diet having used more meat and less vegetables,

> *"I believe in balanced diet but I don't practice it, I know it is not healthy to have more meat and less vegetables …I am trying to cut down on meat and using more vegetables" [Arif31, 1G]*

The participants believed that food is central in South Asian culture, and traditional and cultural norms were of great importance in food preparation. Lack of taste, or 'blandness', was expressed as a big concern if traditional recipes were to be changed and this change seemed to be lacking acceptability. A diabetic female participant revealed, despite having good knowledge and advice from the health professionals, she could not motivate herself to change traditional food practices,

> *"I do receive a handful of advice from the doctors however we old people don't tend to follow their diet and exercise plans……they've told me to make many changes however I haven't really made any" [Mrs Kaur75, 1G]*

Inconsistency in changing eating habits was reported by young participants indicating that these attitudes might be infiltrated through the behaviours of their elders and the cultural norms. They are stuck with their traditional cuisines and change is resisted as it challenges the consistency in their behaviour,

> *"I did try to change my eating habits for some time due to the knowledge I had that South Asian food is not very healthy…I said to myself I can't eat boil broccoli and cauliflower every day. I wanted to eat traditional food again" [Shoaib28, 2G]*

Resistance seemed to be hard because South Asian people have grown up eating food which is prepared in the traditional manner, therefore making it hard to implement change in their eating habits and deeming other 'healthier' cuisines less acceptable.

"A healthy diet is to eat food made at home with less use of oil and also avoiding sugar in thing such as fizzy drinks and chocolates etc.. but after a week or two I start getting cravings for these things so I end up getting back into these bad habits" [Rayyan19, 2G]

4.5: Impact of socio-cultural characteristics on health & healthy behaviour

This section details the social and cultural factors that influence health and healthy behaviour amongst South Asian participants. Participants described their lifestyle behaviour towards diet and physical activity within a unique socio-cultural framework. The participants discussed how their cultural norms and socio-economic factors act as a barrier in adopting healthy lifestyle changes. South Asian food and cooking methods were defined as 'good' and 'bad'. It was apparent that dietary modifications were challenging for the participants due to their desire to preserve cultural identity. Gender dynamics were reflected in the responses from the participants in the way they addressed both food-related decisions and their physical activity patterns.

4.5.1 Affirmation/reclaiming of cultural identity in the context of migration

The notion underlying the rudimentary premise of the concept of attitude is that attitudes can influence, shape, direct or predict the actual behaviour (Kraus, 1995). Dietary attitudes and behaviours were identified in the study. It was suggested by many participants that current eating habits are largely influenced by traditional South Asian methods of cooking. South Asian traditional cooking methods and excess use of particular ingredients in the South Asian diet was considered unhealthy by most, but not all of the participants. It indicates that traditional South Asian meals were consumed and liked by all generations among the UK South Asian group, despite being perceived unhealthy by some participants,

".....with traditional cuisine, most people cannot change their daily habits in terms of their food so they have to stick with what they're used to, I think it is quite hard for us to switch away from that unhealthy diet as we've grown up eating that food… making it difficult for us to change later in life" [Dawood32, 2G]

As we have seen, excessive use of oil and spices in curries was believed to be an unhealthy element of the South Asian diet, however it was considered hard to switch away from the conventional, regular and standard methods on various grounds. The reason could be that most South Asians are raised and brought up in a certain manner that their food choices are led by culture and tradition, leading to the habitual consumption of certain foods. As one participant mentions:

> *"I cook my husband's traditional breakfast which includes paratha (bread fried in oil) because he used to have paratha back home from…the trouble is my husband is used to having paratha in the morning that he cannot resist it …and I have no choice…." [Salma50, 1G]*

South Asian food was considered comparatively healthy, however the method of cooking was perceived as an unhealthy practice. Traditional food based on basmati rice, whole meal wheat (chapattis), vegetables and meat can be very healthy, however adding too much sugar, fats, salt and the methods of cooking might make this food less healthy, which might lead to associated health issues as one participant suggested:

> *"We cook in a way to make food tastier rather than healthy as we prefer taste, and you don't get any vitamins or minerals rather you get more fats. It causes high blood pressure, cholesterol and numerous health issues…." [Naseem41, 1G]*

Participants believed that the use of these unhealthy ingredients bring a rich taste to food, however this unhealthy practice was considered to lead towards lifestyle diseases,

> *"I think using too much oil (fats), red chilli and too many spices makes it unhealthy. We get different health problems by using spices like heart burn which is quite common. The way we overcook food also makes it unhealthy and nutrition goes waste this way" [Hameeda68, 1G]*

A young Pakistani male participant who had a family history of high blood pressure added that over-use of salt in South Asian cooking made it unhealthy and injurious to one's health:

> *"…There are a lot of people who have heart diseases and high blood pressure in our community and it is because of the high amount of salt in the food"[Dawood32, 2G]*

A young participant mentioned that the South Asian traditional sweets are rich in fats and sugar and believed them to be unhealthy, however the consumption of these sweets is very common,

> *"Everything from our desserts to our curries I believe is unhealthy"[Rayyan19, 2G]*

When discussing their food intake and taste preferences, the participants mentioned that taste and flavour of the food heavily influenced food choices; taste and texture of foods help determine eating habits. Many participants demonstrated their proclivity towards unhealthy choices on account of the food flavour experiences,

> *"No, I don't think this is good for health (oil, spices & sugar) but it brings nice and rich taste to food… I know it causes many health implications however for me taste is a big element when it comes to my regular every day diet".[Mrs Kaur75, 1G]*

Another participant shared her experience with regards to familiarity with specific food ingredients and prior experience having a significant influence on food acceptability,

> *"I haven't changed my cooking methods much…I prefer taste when it comes to traditional dishes" [Hameeda63, 1G]*

A Pakistani first generation participant mentioned that they prefer taste over any other factor. The participant mentioned that despite not being active due to the day job they carry out, they were not willing to adopt any changes to the food they consume,

"Eating things like fruits and vegetables will improve your general health. We (South Asians) don't eat healthy foods, we eat whatever tastes nice. I prefer taste over anything which I understand isn't a good thing ....."[Khalid49, 1G]

Taste preferences appeared to be based on cultural settings, social behaviour or customs. These factors vastly affect food choices. It was mentioned by many participants that the key quality of South Asian food culture is flavour and aroma which is achievable by using high amounts of spices and fats. A change or difference in the taste was not appreciated, mostly by the first generation participants. Taste was considered to be the main element of South Asian cooking and seemed to be a major determinant of food choices. Lack of taste or taste loss was associated with healthy food whereas richness of taste was linked with unhealthy food. Food choices thus seemed to be made on the basis of familiarity and largely influenced by cultural norms. Less spiced food seemed to be culturally unacceptable in the South Asian community,

"If you cook with less spices and oil, you will receive comments such as 'Is it food for a patient (individual with health condition?' meaning that the food is not worth eating due to it being tasteless" [Ali36, 2G]

Another participant argued that a desire for dietary change sometimes was challenged by the taste difference:

"Even if we try to make changes in cooking per se, the food doesn't taste the same….taste is the main thing that changes when you modify ways of cooking" [Neelofur43, 1G]

Change in diet or modification in the cooking method was not believed to be acceptable by most of the first generation participants. They perceived the food to be 'bland', this appeared to have a significant effect on food choice. Less 'tasty' (healthy) food seemed a temporary choice but not as part of daily routine:

"Nothing stops me but they are my taste buds which stop me (laughs). We are very much used to our traditional food, I like English food but I can't eat it every day. My kids like it, they would love to have English food for a week or so but after that they would ask for Asian food, again probably because of taste buds" [Salma50, 1G]

A Pakistani participant talked about his long-term association with the taste of certain foods when asked a question about bringing a healthy change in terms of taste difference. He expressed that he has developed his food taste so much over time that it would be extremely hard to bring about changes:

"I am just used to it now (eating habits), I've been eating food the same way since my childhood. It's very difficult to adapt. If I was offered boiled vegetables for dinner I might starve rather than eating it, I just wouldn't be able to eat it" [Khalid49, 1G]

There were many responses from the second generation who seemed more inclined to move towards healthy options despite the fact that they still thought traditional unhealthy food is much richer in taste. Bringing changes and altering from the traditional norms was considered crucial for a healthy life as health was given priority by many participants. Nasir and Dawood, both young participants described that although they felt a difference in taste when they made changes in their dietary habits, but it was not a huge difference. They also mentioned that they knew the benefits this food (with reduced amount of oil) can bring to their health. For the purpose of achieving health benefits, taste could be compromised:

"I feel a little bit difference. A little but not too much. Moreover I like this diet because it is beneficial for my health and I can compromise this over taste" [Nasir32, 1G]

"There wasn't a massive difference. I thought the food tasted the same. It's just the presentation of food which was different. This meant that it was easier for me to adapt as the food tasted similar for me" [Dawood32, 2G].

Keeping control on the amount of unhealthy ingredients was believed to be crucial in bringing a healthy change. Eliminating unhealthy ingredients from food or at least keeping them to minimum could be a first step into leading a healthy life. Rice and flatbreads (chapattis) are staple foods in South Asian diet. Consumption of carbohydrate rich foods may contribute to weight gain and other health implications. Another common view about a healthy diet was the right proportion of food and having a balanced diet. Participants shared their views that increased carbohydrate intake is not a healthy practice and the norm of eating all the curries with flat bread or rice should be revised:

> *"..I think the amount of carbohydrates intake is very unhealthy. The main source of carb is 'roti' (bread), 'nan' (bread) and rice. The way of cooking rice is unhealthy too, if we only boil rice that is not too bad, however 'pulao' (fried rice) and biryani (Rice with multiple spices) are not good. I think curries aren't bad even if you use fats like butter." [Saira36, 1G]*

4.5.2 Cultural norms and economic imperatives

The majority of participants indicated that family responsibilities prevented them to undertake physical activities. The first generation group in particular mentioned that these responsibilities became twofold when they had to take care of the families back home, as well as their own families here which was suggestive of the cultural norm amongst South Asians. Settlement in a new place after migration itself is quite demanding and had its own challenges. Amit who lived most of his life in the UK after having migrated from India back in 1958, expressed that he and his wife had been too busy working to get settled in the UK and for the good education of their children that they could not spare any time for physical activity.

> *"My wife and I had a very busy life as our main objective was to give a good education to our children…It wasn't easy as I had to look for ways to pay for my children's private education. This meant we never really got time to focus on exercise" [Amit85, 1G]*

The second generation participants commonly argued the importance of physical activity but it did not appear to be a prerequisite in their daily routine. They believed that there are more important tasks to perform and thus physical activity was given less priority. The pressure of paying bills, a bulk of domestic duties undertaken and immigration issues were attributable to ignoring and not prioritising health in the South Asian group,

> *"But again our busy lifestyles doesn't give us the time to think about these things, we have other things to worry about such as paying our bills and rent etc..." [Ahsan30, 2G]*

> *"… me as a migrant I had more problems than other people…. when you move from the other part of the world, to get settled in that particular country, it becomes your first priority and everything else becomes secondary. In this situation I tend to ignore.. problems related to my health as I have to push myself and drag myself to make the ends meet" [Ali36, 1G]*

Some responses were indicative of an impression that 'healthy is expensive' and is not affordable for a common man. Food purchase is mainly influenced by economic factors, especially if you consider organic foods to be healthy as one participant mentioned,

> *"I simply cannot afford it. If you go the market and compare the price of an ordinary apple to an organic apple, it is 2 or 3 times less than the organic one. Therefore,…. Changing your lifestyle in this way is not easy" [Neelofur43, 1G]*

A Pakistani first generation participant shared his experience of migration from Pakistan to the UK and defined the hardships and challenges he faced in a different culture to survive. He narrated that he could not find enough time to adopt regular physical activity as he had to prioritise earning money to survive, over spending time in a gym.

> "*Your health should be your priority but you also have to consider the situation you are in; for example having financial responsibilities become twofold especially when*

you have migrated to the UK. I feel after I achieve these financial goals in life, I will start taking diet and exercise more seriously."[Ali36, 1G]

Dietary modifications appeared to be challenged at time by the extended family and the South Asian household. Many responses reflected the lack of regularity in making healthy decisions related to food and diet. An individual cannot be consistent in his/her healthy food choice when living within a family who is not following healthy instructions,

"It is very hard for someone to make changes to their diet if they are living in a South Asian household and if they are the only ones actually making the change and also if they cannot cook for themselves."[Rayyan19, 2G]

This situation makes it difficult to invest in physical activity,

"Sometimes the issue can be money, some people prefer not to spend money on their fitness and especially as some gyms can be quite expensive" [Ahsan30, 2G]

Different cultural, religious events and appointments acted as a barrier to building up daily exercise routine, a perspective which was justified by some respondents:

"I think if I didn't stop exercising for the whole Ramadan (Muslim's religious fasting month) then maybe I would've stuck with it (regular exercise) and had been working out today but due to me not doing it for 30 days my body isn't adapted to it which makes it difficult to get back into." [Ahsan30, 2G].

Respondents outlined that community gatherings and communal feasts are central to their cultural and social lives. Food is the key element to their religious festivals, social events and their respecting hospitality. These cultural factors seem to be major challenges to their adherence to food modification, again which can be hindered by the visits of other families and friends on different social occasions,

"When I have families around me I prefer to cook what they want to eat, obviously they prefer traditional food, I cook separate food for myself as I am diabetic."[Sabira50, 1G]

Mrs Kaur found social events a big challenge for her healthy eating:

"Basically trouble is even if we cook healthy in our own home, we still find something unhealthy to eat from our family friends or neighbours. As you know about Asian party food and what is it like….".*[Mrs Kaur75, 1G]*

Demonstrating negative responses to traditional food was considered discourteous and disrespectful,

"….. we have guest around us all the time……You cannot say no, you cannot say I can't eat this food as it is unhealthy; it comes off rude as someone has gone through a lot of cooking for you" [Sajida43, 1G]

On different social events, saying 'No' to traditional food was considered offensive, likewise not serving traditional food to the guests was viewed to be unsocial and unwelcoming.

" I can get something else because they might get offended. If I don't like their food or something like that I would eat less but still I would eat it." [Rashid22, 2G]

It appeared to be a South Asian social norm to treat their guests with special kind of sweets and traditional food. A non-welcoming feeling was common among the guests if this was not practised,

"*Similar attitude you experience when some family visits you at home if you don't entertain them with fizzy drinks or traditional curries they would complain about it and it is considered an antisocial norm in our society. You've got to serve the guests with at least two curries; lamb and chicken or biryani (traditional spicy rice)".[Ali36, 1G]*

Having a meal together as a family is a South Asian cultural norm which keeps the family as a unit, as argued by many participants. Making and maintaining changes in eating habits are sometimes challenged by South Asian's household as living in a family makes it hard to make a change when everyone's needs and choices are different,

> *"Especially when you are living with the family, you have to take care of your family member's choices and not all the family members would like grilled food etc….. it is difficult with the family"[Muneebah40, 1G]*

In terms of exercise or physical activity, participants discussed some limitations related to culture and religion, however most second generation participants did not think it was a barrier. A young female participant argued that she could understand there are some restrictions she has to follow but there were ways to go around those restrictions:

> *"I guess it affects me in some minor ways as I'm Muslim so I can't go to stuff like swimming as it is revealing your body but that's not the only way to be healthy. There are so many other." [Mehar19, 2G]*

Saira mentioned that stress can be a prime factor acting as an obstacle for the majority of South Asians as she thought there were less problems and stress levels were minimum back home. However, circumstances are different in the UK. She indicated that stress and future worries could act as obstacles when adopting a healthy lifestyle. In the presence of these issues, an individual might not be able to lead a healthy life:

> *"…. I have my own house back home so we are stress free there however in this country you are stressed out for the bills and rent….. we can control other luxuries but we have no control over the rent of the house we got to pay it by all means". [Saira36, 1G]*

4.5.3 Gender specific constraints

Many female participants expressed the view that their role as a wife and a mother act as a barrier and prevent them from engaging in physical activity. They talked about having an unbalanced share of domestic responsibilities, which does not make way for spare time to perform exercise,

> *"Generally in most families it is men who are working, they are the ones going outside, they get to know more people, they are also more involved in sport activities. They try to find some way to get active…..women are mostly housewives, they struggle with being active and take upon less activities ..." [Dawood32, 2G]*

Cooking food is considered the main duty of a South Asian woman and the kitchen seemed to be their domain according to the views shared by the study participants, however some female participants revealed that male members of the family may influence their kitchen activities by dictating their food preferences,

> *"I prefer white meat because my kids like it as well and I believe it is more healthier than red meat. However, my husband likes red meat so I do cook red meat once or twice but for the rest of the week I go for white meat because of my children." [Salma50, 1G].*

This seems to suggest the presence of complex cultural norms as many female respondents quoted that men have more chances to be involved in sports and exercise opportunities leaving less chances for them because South Asian women have all the responsibilities of cleaning, washing, cooking, looking after the children and the elderly. They argued that it was culturally inappropriate that men take part in cooking, cleaning and washing, although men were responsible in meeting the financial needs of the family.

Many responses from the female participants conveyed an impression of a huge difference in the responsibilities of men and women in South Asian culture. They claimed that men had more spare time when compared to women hence had more time and chances to engage in physical activities and sports, however women, due to their twofold responsibilities, fail to

care for their health properly. For example, Muneebah, a Pakistani female participant, said that women can take care of diet and food more because South Asian men are not heavily involved in cooking, however she thought South Asian men could be more active as compared to South Asian women,

> *"I believe South Asian women can take care of diet more because men are not very much involved in cooking in this culture. On the other hand, men have got more chances for physical activity, though the reason is because they have less household responsibilities like: pick and drop of children to school and mosque". [Muneebah40, 1G]*

Male participants argued that women in the South Asian culture were supposed to stay at home and look after children and for this reason they were not very involved in physical activities. Their household responsibilities reduces the chances for them to engage in some kind of formal physical activity:

> *"I think South Asian men are more inclined towards exercise than anything as in the South Asian culture men tend to do the "outside work" whereas the women stay home and do the housework." [Rayyan19, 2G]*

The excerpt above from a male participant indicates that disengagement of physical activities from South Asian women is attributable to differences of responsibilities between men and women in South Asian culture, however women are more involved in food preparation than men hence they have more opportunities to bring a healthy food change. Women's physical activity was not much appreciated, however the kitchen was considered the women's domain. This may be indicative of prevalent gender relations as women in South Asian culture take greater responsibility for daily food preparation.

4.5.4 Environmental factors

Insecurity and lack of confidence was expressed by many female participants regarding going out for a walk on their own. It was a key concern for South Asian women, especially first

generation participants. Less confidence was shown in this group for various reasons such as mobility issues, lack of social and family support. Outdoor physical activities were not perceived as safe as indoor activities as darkness and cold weather seemed to be a major concern for first generation participants. Darkness during the winter months appeared to be a big challenge for physical activity for the female participants in particular. One female participant said,

> *"When it gets dark early and gets really cold, I find it very difficult to carry out any sort of outdoor physical activity. I go for a walk with my husband and when he is not at home I find it hard to go out. I don't feel safe going out for a walk on my own when it is dark except summer time" [Muneebah40, 1G]*

Cold weather and rainy conditions can be a reason to curtail the decision of outdoor physical activity. When it comes to comparing the weather between UK and back home, most of the first generation group participants considered cold weather as a significant obstacle in carrying out physical activity. They thought that weather contributed significantly towards adopting outdoor exercises; the hot weather conditions meant it was rather easier to adopt this back home. Outdoor physical activities were thought to be more enjoyable than an indoor exercise or gym. A few female participants argued that they did not mind going out in cold weather however in winter season when day light period is short, they do not feel safe leaving the house after sunset due to safety concerns,

> *"Cold never really stopped me doing outside chores but I don't like going out when it is dark and cold, I usually finish my outdoor chores like shopping etc in the afternoon" [Hameeda68, 1G]*

Staying inside was preferred to going out in cold weather, however an organised indoor physical activity did not seem to be a part of South Asian participants lives apart from light activities like walking up/down stairs, having a few rounds in the living room or skipping rope. Exercise machines did not appear to be very popular among South Asian in both groups of participants due to less space available in the house:

"I did think about it and bought a treadmill for exercise but soon realised that our house is too small to keep a treadmill….at present treadmill is in the garden and we don't tend to go outside to do exercise on it because of the cold. "[Aimen32, 1G]

Many respondents admitted that they have more healthy lifestyle opportunities in the UK, however they did not seem to be encouraged in joining the gym purely because the gym was not nearby and unreachable. The majority of female participants reported that not all the leisure centres have a women-only gym or swimming facilities, and this was a big concern for South Asian women who did not feel comfortable taking part in such activities in mixed gatherings due to the need of public modesty. They were quite aware of the fact that there were women only swimming or gym sessions in a few places, however those places were either unreachable or they found the timing of those sessions not manageable due to their domestic responsibilities,

"If the gym was nearby I would have joined it. I think walking best suits me and I like walking anyway." [Muneebah41, 1G]

Most of the female participants argued that men have more options to be physically active than women, and they felt that they have less sports opportunities as compared to men. They also mentioned that there should be culturally appropriate sports activities like badminton or tennis for South Asian ladies. Surprisingly, the second generation participants did not mention cold weather and darkness as a barrier, however they thought rain might stop them and their preferred form of exercise appeared to be walking and sports. They argued that gym was not as interesting as the other forms of exercise,

"*I think the main thing which bothers me is the rain. Constant rain irritates me. Cold weather does not irritate me at all".[Shoaib28, 2G]*

4.5.5 Acquiring less cultural-based professional advice

The internet appeared to be a key source of health information, but participants from both generations also emphasised the need to seek advice from health professionals. Mrs Kaur

said she wanted more simple and understandable advice which would be convincing and motivational in changing her lifestyle:

> "*I want my doctors to advise me, not just simply telling me to eat less and exercise more. I also think they should change the way they explain calories to cater to us; they shouldn't just say eat less and workout more, I don't find this to be helpful at all. They should make it very clear on which foods are harmful for us and which are healthy for us." [Mrs Kaur75, 1G]*

The participants believed that health advice should be coherent to their cultural needs. Health professionals should not simply advise a change of diet and work-out more, the advice should be culturally sensitive, for example in terms of cooking methods that are healthy but preserve traditional taste,

> "*I think that the health professionals should take a different approach towards us (South Asians) anyways, they should introduce healthier ways of cooking our traditional food so we can still stay in touch with our culture and at the same time adopt a healthy lifestyle." [Amit85, 1G]*

Participants urged that doctors and health professional should persuade South Asian community through cultural based advice and it should be detailed and practical to improve the public's knowledge of public health matters:

> *"They should guide us about healthy and unhealthy diet. They should motivate us to do this and that to be healthy. But they don't do it." [Aimen32, 1G]*

4.6: Bringing About Change

An acknowledgement of self-responsibility and willingness to change was demonstrated by most of the responses from the South Asian participants. Participants stated that it was a common practice among South Asian people to make healthy decisions late. A health issue or disease generally motivates them to bring changes in their lifestyle. Fear of having disease

appeared to be the prime motivational factor among second generation participants, mainly due to the experiences of sufferings of their parents or family members. A change towards a healthy life seemed to be challenged by the notion of 'we will cross that bridge when we get there', if you do not have any health issues, you are not obliged to bring any healthy changes in your lifestyle:

> *"It is said by my family members that taste should not be compromised, as far as health is concerned, we will see into it if there are any health problems." [Aimen32, 1G]*

Participants suggested that a big challenge they encountered was to convince the family to make healthy changes. It was a matter of discussion between the participants and their families that there was no need to change their lifestyle if they were experiencing no health issues.

4.6.1 Acknowledging personal responsibility

A change or transition in terms of food and diet was considered important by the participants from both generations. Personal responsibility and willingness was thought to be crucial to bring about a healthy change in food and diet. One's own belief and ability to change can play a major role in leading towards executing the course of action towards a healthy lifestyle change,

> "*It is our personal choice because we have been eating this food for years and years and we are just used to the taste of the food…..I believe this has nothing to do with our culture, it's just a bad habit that we have developed; like eating parathas (bread made with butter ghee) in the morning for breakfast is not a good habit".[Parmeet33, 1G]*

Personal preferences play a vital role in adopting healthy lifestyle change and individual will power is considered essential in bringing about healthy modifications. A strong willingness affects every area of human endeavour, many participants believed. It was crucial to determine the perception of unhealthy food in their minds as well as the next generation as

it might influence the food choices they were going to make. Giving up long established eating habits were thought to be a stumbling block in adopting healthy eating habits:

> *"At the end of the day it comes down to you as an individual and how you control yourself. You can't really modify Indian sweets but you can change your intake I think that it's our mentality that doesn't allow for us to be active. The mentality that we have too many commitments in our family and work so we can't make time for exercise. This is something that acts as a barrier" [Ahsan30, 2G]*

A 74 year old Indian female participant made her point towards personal will power and narrated that nothing else can motivate someone but their own self-determination. She acknowledged the significance of will power, relating to her own experience in bringing about change in her lifestyle:

> *"Look, it is an individual's responsibility. If people on the table around me eat unhealthy, I am not the one who can stop them…People should know about having less sugar and salt levels is a healthy choice" [Mrs Kaur75, 1G]*

Power of personal control and self-responsibility appeared to be crucial in helping to design a healthy lifestyle. The participants believed the power of personal control helped them in seeking new knowledge and information by which to guide them towards a healthy lifestyle and to improve their outcomes. It appeared to be a motivational force to achieve more knowledge and make informed choices:

> "*If I am trying to eat healthy, I tend to make my food myself. If I wanted to, I could be a lot healthier by preparing food for myself. .Also, sometimes if my mum makes something that I do not like or I think is unhealthy, I cook food for myself" [Mehar19, 2G]*

Speaking about different factors in relation to healthy change, many participants communicated culture and religion can play a role and influence your food and healthy lifestyle choices to some extent, however they were of the opinion that personal

responsibility and will power is a vital component in making decisions. A 52 year-old Pakistani female participant expressed her views, saying that she did not believe that your culture can stop you in adopting a healthy lifestyle; it is a personal decision mainly:

> "*No I don't think so (culture can stop you from adopting healthy life) it is you who is going to decide , if you want to adopt healthy lifestyle, nothing stops you" [Salma50, 1G]*

Neelofur, a 43 year-old female Pakistani participant said if there was no choice but to carry on cooking traditional food, it comes down to individual's personal duty to reduce the amount of unhealthy ingredients from the food:

> "*You can have smaller portions. I try to keep my meals small. When you have cooked your favourite food and you cannot resist it then you have to tell yourself not to eat much and restraint yourself to smaller portion." [Neelofur43, 1G]*

Many participants revealed keeping your portion size small according to your bodily needs can be the first step towards a healthy change and suggested that it should be the individual's responsibility to find out what their body needs were. A 28 years male Pakistani participant stated:

> *"Portion of food is very important. You should know how much your body needs, then you know what portion of food you should be eating." [Shoaib28, 2G]*

Many second generation participants expressed their keen interest towards adopting a healthy change in their lives and thought it was their personal responsibility to think about it and take necessary actions to achieve this goal. A young participant, Mehar, shared her views on how she was trying to bring a healthy change and she emphasised personal responsibility whilst living in the family, which was considered a cultural barrier by many participants. She shared her determined attempts as:

"If I am trying to eat healthy I tend to make my food myself. If I wanted to, I could be a lot healthier by preparing food for myself. Also, sometimes if my mum makes something that I do not like or I think is unhealthy, I cook food for myself." [Mehar19, 2G]

4.6.2 Becoming willing to change

A strong willingness was communicated by the participants to bring healthy modification into their lives. They aimed towards determined efforts to prioritise engagement in health behaviours such as dietary modifications and physical activity. The second generation participants in particular laid stress on adopting the change slowly and taking small steps as making a revolutionary change was perceived hard in their household. Rashid, a second generation participant highlighted the source of information and how he tries his best to implement that knowledge:

"*I also consult online resources, and if I do come across something on social media I share it with my family. Generally we try to cut down on unhealthy stuff….generally watching what we eat and taking small baby steps to improve our diet".[Rashid22, 2G]*

First generation participants mentioned a few challenges they faced when they decided to bring modifications to their diet due to illness or other dietary restrictions. They showed a positive attitude towards these changes, although the transition was hard but they showed willingness and determination towards food choice. A 43 years old Pakistani participant Sajida stated she missed the taste of food when she reduced the amount of sugar in her tea, however her view was that if you are determined to be consistent towards your healthy food choices then you could compromise the taste:

"*When I reduce the amount of sugar in my tea initially it was not very nice in taste but now I am use to it so I am ok with it, it is just the matter of getting used to the new way of living" [Sajida43, 1G]*

The internet seemed to be the prime source of health and well-being information for a number of participants. Improved knowledge of healthy lifestyle motivated most of the participants and they showed their interest and willingness to bring about change in their lifestyle. Saira, a 36 years old Pakistani participant said:

> "*Media and internet has exposed many issues regarding health and the new generation seems to be well aware of those things…The day when my children would be in the nursery and I would not be working so I can plan for my healthy diet on that da. I can go out, I can plan gym for that day. I will be going to gym/ leisure centre that provides all those services like gym, sports and swimming under one roof".[Saira36, 1G].*

Well informed members of the family seemed to be a source of improving health knowledge of other family members and to motivate them towards adopting a healthy lifestyle. Arfa, a 34 years old female Pakistani participant shared that her sister who was very well informed about diet and health always offered valuable advice whenever they had a get together, which she found very useful to make healthy decisions for herself and her family:

> "*…so I think we have knowledge about it and we try to change our lifestyle accordingly" [Arfa,34]*

Many responses reflected the willingness of the participants to engage in healthy behaviours however their willingness appeared to be always challenged by numerous factors. Aimen, a 32 years old Pakistani participant demonstrated her strong will to join a gym to have regular exercise, however this idea was always tested by other household commitments.

> "*I always wished to join gym and have regular exercise, I got my membership of the gym at one stage and went to gym for a couple of months. However my lifestyle is set up in such a way that I could not keep my routine (for going to gym) for long." [Aimen32, 1G]*

A robust reflection of willingness was demonstrated by number of participants, showing determination in adopting healthy living. Moving to the UK from their home country seemed to be promoting and encouraging them to engage in variety of healthy activities and bringing about change in their lives. A 40 years old Pakistani female participant stated:

> "*I cut down on the amount of salt as well which we were in the habit of using a lot from Pakistan. In Pakistan you don't get much problem from using more salt as there is hot weather 8-10 months of the year so you sweat a lot and release salt through it however over you barely get sweaty. I used to have three proper meals back home all included "Roti" or "Paratha" (oily bread) however as I came to the UK and became less active as compared to Pakistan then I stopped eating 'paratha' and started cereals and reduced the use of butter ghee."[Muneebah40, 1G]*

Parmeet aged 32 shared his experience of food and diet since he moved from India to the UK:

> "*When I was in India I used to start my day with eating parathas (traditional bread made of butter ghee), now I stopped eating that and started eating very nutritious food in the morning" [Parmeet32, 1G]*

4.6.3 Fear of disease and illness as a precaution

Feeling apprehensive about developing disease appeared to be a driving factor towards a healthy lifestyle change. A 45 year-old female Indian participant accepted that she had made changes in her shopping list because of fear of having health issues as her husband had high blood pressure issue. Since he had this problem, she also became alert for her son and herself as well. She conceded that they used to buy sugary fizzy drinks, deep frying food like spring rolls and samosas. However, she improved her knowledge in terms of healthy food and started cutting down fried and sugary stuff and preferred grilling and boiling meat and vegetables instead of frying:

"We've cut that out; It's been nearly 2 years since we started making changes to reduce our sugar intake; it's almost a fear of disease that caused this change as both my parents are diabetic and this is something that I don't want to have"[Ankita44, 1G]

Besides the fear of illness, this also urged participants to get more information and knowledge about life related health issues to stay informed and achieve a good quality of life. A few respondents mentioned their concern in being at risk of having diabetes due to family history. A young Pakistani participant stated she had been improving her knowledge about health and well-being purely because her family members had lifestyle related health issues. She developed a fear of having those issues as she would progress into the next stages of her life:

"I used to read a lot about the health risks associated with being overweight like obesity and diabetes. I started going gym, I would notice obese people, that's the point where I started reading about risks of not working out etc. I obviously don't want that when I'm older as these issues come up with age as well. "[Mehar19, 2G]

Another 40 year old Pakistani participant, a mother of three, found her gestational diabetes an alarming situation as she had a family history of diabetes. Doctors advised her to take extra care about her lifestyle to avoid future health complications, the fear of disease became the motive for lifestyle change for her.

"*I became diabetic during my third pregnancy so that was an alarming situation for me so it turned me around… I should reduce my weight and watch what I ate. I have cut down sugary drinks and bakery products to the minimum since.."[Muneebah40, 1G]*

Another 37 year old Pakistani mother shared a similar experience of gestational diabetes and her fear of disease saying:

"*I had diabetes in both of my pregnancies so doctors had told me to control my weight and watch my eating habits and if I did not my diabetes would stay. I have*

diabetes in my family history so I have got to be extra careful. That is why I try to control my diet and try to eat healthy" [Saira36, 1G]

Participants from the second generation communicated they did not want to face those health problems which other family members had already faced and they did not want to get to that stage when it became a serious health trouble. A 30 year old Pakistani female participant also appeared to be apprehensive towards the disease and expressed it as a motivational force for her lifestyle change:

"*I have heard in our country a lot of young people have died due to eating unhealthy food e.g. butter, margarine , excessive oil. That's why I have reduced the use of oil in my cooking. Fear of disease, fear of health and fear of getting heart attack in young age, fear of overweight so many problems like these I haven't gone through but heard these could happen because of eating unhealthy food".[Anisa30, 2G]*

Another 30 years old male Pakistani participant shared his fear and risk of getting disease:

"*I wouldn't like to get to that stage when I am having serious troubles with my health and I strongly agree on the fact that something has to be done before you get to that stage" [Ahsan30, 1G]*

Fear of disease develops as you become older and progress to the later stages of your life, that fear becomes a driving force in bringing changes in your lifestyle, as expressed by an Indian 48 year old male participant who shared his own experience about how fear of disease motivated him to bring about change in his lifestyle.

"*…doctor just said that I might be at risk of getting heart disease. I had some information already (regarding higher risk of heart disease due to their ethnic background) from my wife who is a nurse and she knew more about that then we decided that we should think about healthy changes" [George45, 1G]*

4.6.4 Making lifestyle decisions

A significant element of the conversation about health was when participants described that health becomes more important when they get older, as one participant expressed:

> "*To be healthy is a concept which recently came to us because we are getting older now so we should be very careful about our lifestyle." [George45, 1G]*

As the analysis developed, the age-related point-of-view of health became apparent, they argued the lifestyle changes should be brought according to age progression. A concern seemed to be developed in middle age participants of having any serious health conditions. A participant explained that it was very important to bring a lot more changes in their lifestyle as they are getting older as this may cause more health problems if they carried on their routine habits.

> *"Maybe in a few year's time we will have to make a lot of changes in our lifestyle because we have to live here and the problems we are facing now will get worse in a few year's time, unless we change our behaviour toward health."[Naseem41, 1G]*

The significant issue of concern 'making healthy lifestyle choices late' was reflected through the responses of the participants. They revealed that they tend to make changes towards their lifestyle at the point where they had started experiencing health issues, or may be from the other family members who were already struggling with them. A first generation Pakistani woman who came to the UK 25 years ago shared the unhealthy eating experiences of her family members. She thought it was very unfortunate that some of her family members changed their lifestyle when they started having health problems:

> *"When I came to this country back in 1994, there was a routine to fry a big lot of chips and fish every single day in my in-laws and they used to put a large amounts of salt and vinegar on it and eat it…they realised lately that it is unhealthy and they are not giving this type of food to their next generation."[Naseem41, 1G]*

A young participant from Pakistan also shared her uncle's story similar to the above, she described the poor health of her uncle who had an inactive lifestyle and now it was too late and too hard to make healthy decisions:

> *"My uncle is overweight and he has all these types of issues so if he went to the gym it will probably be better for him as he will have a more active lifestyle. Currently being overweight makes it hard for him to work as he can't move about and walk for long periods of time." [Mehar19, 2G]*

A few respondents mentioned that, again as this notion comes down to cultural belief that nothing wrong would happen and there is no need for change if you don't have any health issues. A young participant from Pakistan shared his views about immature behaviour which is prevalent in South Asian culture:

> *"We do not understand unless something serious happens. I have seen many people, they end up having a heart attack and they do not realise before. When the doctor tells them to control their diet and eat less then they realise. We are being lazy and we don't focus our attention to health in the early stages of life."[Shoaib28, 2G]*

Aimen, a Pakistani female participant who was significant concerned about her husband's deteriorated health after having a heart attack at a very young age mentioned that her husband had been very careless about his health and had shown a lack of attention in taking precautions to avoid adverse health problems. He has not been interested in regular checks and controlling risk factors of heart disease such as high blood pressure and diabetes.

> *"Unfortunately, we wait to change our lifestyle until we get any health problems, we don't take things seriously unless or until we get an illness."[Aimen32, 1G]*

Participants felt that it was a South Asian's frame of mind to 'leaving things till late'. A young Pakistani female participant who was born in the UK and whose parents migrated from Pakistan a long time ago expressed her concern for the cultural behaviour of South Asians from the reference of her family member's poor health experiences. She seemed to be

determined to seriously think about these problems and take necessary steps towards a better life.

> *"I think we Asian people don't care much about our health and we consult our health issues very late and for minor things we just try to treat those things by ourselves at home and not bother going to doctors. I personally think that we should take our health problems seriously and not leave things till it is very late."[Arfa34, 2G]*

Another young male participant from Pakistan believed that this kind of behaviour is often seen in his own family and other South Asian families. Older family members and other people within the family are the main source of health information and knowledge. He also mentioned stress and mild mental disorders are not much acknowledged and neglected in South Asian culture,

> *"Only then South Asians will start making changes to their diet, perhaps when it's a little too late, with us we would never look into an issue until we are actually facing it…for example kids going through depression will not get support from their parents.". [Ahsan30, 2G]*

Being well informed and having a great knowledge about healthy life, the second generation predominantly felt that it was better to make healthy decisions early before it was too late. They thought it was very important to make timely decisions about a healthy life because it was less beneficial making those healthy changes when they come across a significant health issue,

> *"I said to myself I'd rather work towards being healthy now than struggle later on in life and also looking at my uncle and how he is, I didn't want to be like that. If I can stop myself having certain health implications in the future, I'll make sure I'll do something about it".[Mehar19, 2G]*

A 32 year old Pakistani male participant argued how important it is to take decisions towards adopting a healthy life to avoid future health issues. He thought stronger measures would

have to be taken to escape from the serious health consequences. He shared his family history of high cholesterol and blood pressure, this situation made him become very careful about his diet:

> "*I believe we should be taking precautionary measures in regards to our health, I think it's obviously good to take steps to avoid any health issues in the future. Somethings are unavoidable as they are family related. For me it is high blood pressure and high cholesterol which I am quite alarmed by. It is something that runs in my family …".[Dawood32, 2G]*

Many respondents indicated that avoiding health issues worsening in the future plays a vital role in influencing eating habits and enables them to seek more knowledge to improve health behaviour. Aimen, shared her worries about her husband who suffered from heart disease:

> *"My husband was experiencing high blood pressure so I didn't want that to get worse. I also read any health leaflets I came across to improve my understanding. "[Aimen32, 1G]*

Dawood, a 32 years old Pakistani young participant shared his own experience of carrying on the dietary changes as a preventative measure:

> *"Previously I did suffer with high cholesterol, but since making these changes it hasn't thankfully gotten worse"[Dawood32, 2G]*

The motive to avoid future health problems sometimes lead participants in trying to obtain new knowledge about health and well-being. Mrs Kaur, a 75 year old Indian woman stated:

> *"Only after I was diagnosed with diabetes at the age of 35 I came to know the importance of a healthy diet…I generally take 5-6 tea spoons of sugar. The doctor warned me that this was very dangerous for my health, so ever since that day I started cutting down on the amount of sugar I would intake" [Mrs Kaur75, 1G].*

Many participants particularly from the first generation mentioned they were worried more about the next generation's health and would like to bring healthy modifications because of the need for their children to be safe in the future. A 43 year old Pakistani mother expressed her concerns about the health of her child as she mentioned that they had not thought about bringing any change in their diet before they became parents:

> *"Since I have become a mother now I want to look after myself for my child, I want to be there for my daughter and also if I am cooking healthy food, making healthier choices my daughter will follow it".[Sajida42, 1G]*

To be safe and free of health issues appeared to be main focus of the young generation. They argued it was better to be safe than sorry. A young male Indian participant shared his father's experience who developed lifestyle diseases because of lack of physical activity and un-healthy eating habits:

> "I *definitely believe that it is a good practice to take measures beforehand. It's better to do something about your health now, before it's too late. I don't want to live my life suffering with diabetes. I think prevention is better than cure".[Parmeet33, 1G]*

Another Pakistani female participant stated the importance of bringing about change in terms of healthy lifestyle having considered the busy life routine. She also mentioned the mindset of South Asians making their healthy life related decisions too late, for example when they come across a serious health issue. She argued that knowledge and information about healthy living was making a huge difference, particularly in the lives of the young South Asian generation:

> "*It is very important to plan ahead the way we are living very busy lives we should plan ahead as we can easily get any type of health issue like heart disease and diabetes. Media and internet has exposed many issues regarding health and new generation seems well aware of those things, they want to look fit and healthy, try to be positive towards healthy lifestyle as precaution and should not wait for the illness"[Saira36, 1G]*

4.6.5 Health issues precipitated a healthy change

A number of reactions suggested that unhealthy practices clearly persisted until they had realised the serious nature of their health problems. It was believed that before having a health problem, making health related changes were not that important. A first generation Bangladeshi diabetic participant revealed she brought changes in her lifestyle when she was diagnosed with diabetes, however she thought she was compelled to bring about these changes:

> *"I am a diabetic patient so I was forced to bring these changes to my life, I never gave any attention to it before but after I was diagnosed my doctor provided me with guidelines in terms of my diet"[Sabira50, 1G]*

Another 41 years old Pakistani female participant said she never realised that the sedentary lifestyle and careless eating habits can cause serious health issues. As she mentioned their life became less active since she migrated from Pakistan to the UK:

> *"I think various factors were involved and contributed in my weight gain including less activity, staying in sedentary because of the weather or may be the easy lifestyle which leads you to sedentary behaviour. I didn't realise that this kind of lifestyle is a main cause until I started having health concerns"[Muneebah40, 1G]*

The members of the family with health issues motivated to bring about changes in the lifestyle, however there seemed to be no concept of switching away from the traditional way of cooking before these health issues occurred,

> *"Since he's had that high blood pressure problem we started implementing changes like using less salt in our food, we never thought of bringing any changes before he had these issues".[Neelofur43, 1G]*

The majority of participants revealed that the major factor influencing bringing about change in their eating behaviour was 'serious health issues'. Serious health problems appeared to be a prime motive for changing eating habits,

> *"I thought to change the way of cooking when I got high blood pressure. Then I came to know that salt is not good for high blood pressure"[Sajida43, 1G]*

Health problems of other family members appeared to be a significant motive for bringing about change in second generation. It was expressed that health was not really looked at with that much importance by their elders until a serious issue such as type 2 diabetes hit them. The second generation participants seemed to be more inclined to learn a lesson from the experiences of their parents or elder members of the family who have been going through the sufferings of life related diseases.,

> "I *think my dad motived me, he is diabetic I have heard in our country a lot of young peoples had died due to it by eating unhealthy food e.g butter, margarine , excessive oil. That's why I have reduce the use of oil in food"[Anisa30, 2G]*

A Kashmiri young male participant shared his memory of his aunties who were overweight and had health problems. He discussed that his grandmother used to cook for them, separately indicated that only those who have health problems should bring a change and the rest of the family who apparently had no health issue did not need any modification,

> "*My dad has five sisters at home. two of them are really obese. So my grandmother used to cook separately for them. They called it diet. But actually it was not but they prepared something different from the rest."[Shoaib28, 2G]*

Many participants discussed their worries about their already developed health issues getting worse, this seemed to be another significant motive for change. A Pakistani young man (33 years old) who explained his lifestyle as in-active due to the nature of his job (he is an accountant, an office based job), he developed high blood pressure so his big worry was to

get control of his health condition and to prevent it from worsening, however they did not seem to think about healthy lifestyles before the development of health issue,

> *"Previously I did suffer with high cholesterol, but since making these changes it hasn't thankfully gotten worse".[Dawood32, 2G]*

Another 37 year old Pakistani female participant who had developed diabetes in her pregnancy revealed that health issues can push a person towards adopting a healthy lifestyle,

> *".....like diabetes push you towards healthy lifestyle. However some health problems interrupt you from adopting it like diabetes pushes you towards healthy life as you cannot eat much and you got to do exercise..... Likewise heart disease pushes you towards healthy life".[Saira36, 1G]*

Many participants manifested careless behaviour towards their health and well-being. The turning point appeared to be the warning or a sign of particular health issue requiring attention. These health problems come to their realisation only when those become serious ones. A young Pakistani male participant who came in the UK as a student and faced financial and immigration problems said,

> "*I think I am (compromising my health, giving work priority over health) and I am aware of it now when I was a student I never thought about it(change in my lifestyle) and did not care because there was no red flag, now I have realised because I have red alerts because of the health condition after accident…it became a turning point towards adopting healthy behaviour".[Ali36, 1G]*

For most of the second generation participants, obesity and its related health issues in their older family members were reported to be a motivator for physical activity on the basis that they believed they should learn a lesson from their elders who suffered from lifestyle related health issues.

"In my family most of the people are overweight according to their age and height, overweight has caused different kind of health issues that was the reason I got motivated to become healthier"[Shoaib28, 2G]

4.6.6 Conclusion

This chapter provides a detailed account of the findings. Study findings highlighted the need to include South Asian's (living in the UK) perspectives in their healthcare and in research. The four categories developed by the analysis were 'perspectives of health & well-being', 'Lifestyle experiences and practices', 'lifestyle constituents' and 'bringing about change'. Impact of personal, social and cultural characteristics on health and health behaviour was demonstrated. In the last category 'bringing about change' referred to those factors which were involved to bring about the change in lifestyle behaviour of South Asian participants. The following discussion chapter aims to discuss the key aspects of the analysis including the significance and contribution of the research findings by relating it to the wider evidence in the literature.

Chapter 5: Discussion

5.1 Introduction

The discussion chapter, following the constructivist grounded theory approach, provides a synthesis of the research findings integrated with relevant literature and the researcher's own critical interpretations. The thematic categories discussed below, 'perspectives of health and well-being' and 'lifestyle experiences and practices' determined the perceptions and health behavior of two generations. The third category 'lifestyle constituents' determined the factors influencing health behavior between two generations, and lastly, 'bringing about change' category establishes the facilitators and barriers to adopting healthy lifestyle change.

5.2 Thesis Aims

The aim of this study was to explore inter-generational differences in health behaviours among UK South Asians and this aim has been achieved. Specifically, this study aimed to explore patterns of health attitudes among two generations of UK South Asians and determine which factors account for the continuity and discontinuity of those patterns. Adopting a constructivist grounded theory approach provided a methodological and conceptual framework for the study, and consequently it enabled an increased understanding of the impact of inter-generational differences on health behaviours among UK South Asians.

As the findings have shown (see chapter 4), the first generation participants reported that limited knowledge or lack of knowledge was a significant barrier towards adopting a healthy lifestyle. However, the second generation participants appeared to be more informed but they indicated that the barriers to achieving a healthy lifestyle included a range of intrinsic and extrinsic barriers. Physical activity was least prioritised among the first generation participants and inconsistent patterns of physical activity were reported by the younger participants. The absence of disease was associated with a 'healthy body', and therefore no lifestyle changes were deemed necessary, a view which was reported by the majority of first generation participants. The first generation participants stated that dietary changes and physical activities were remedial or therapeutic measures rather than a lifestyle. Health

issues, fear of disease and risk of progression of the disease were general motivational factors. However, the younger participants from both generations appeared to be ready to make timely healthy lifestyle decisions to avoid the state of serious disease. The younger participants stated that they have learnt a lesson from their older family members and friends and appeared more inclined to adopt healthy lifestyle practices to avoid those consequences which their older family members had. However, their efforts are hindered by both individual and social factors.

5.3 Perceptions of health and well-being

This section presents an account of the participants' constructed meanings and actions. The position taken here is congruent with the insight from Silverman's (2004) observation of conversational analysis. He explains that social analysis can only seek why people act as they do by establishing how people construct meanings and actions about the social world, and this can lead a grounded theorist to identify more reasons for their actions (Charmaz, 2006). It can be argued that self-perception of health and beliefs can shape the health behaviour of an individual with the up-take of actions to maintain, attain and regain health and prevention of illness (Kronenfeld, 2015). In populations and social groups where there are higher risk factors and concerns around disease prevalence and morbidity there is a need to identify perceptions of health and beliefs. Health perceptions, knowledge, attitudes and beliefs contribute to the risk factors for poor health, with South Asian groups being at a higher risk of lifestyle related diseases (Lucas *et al*., 2012).

South Asians are an ethnic minority and a migrant community, many of whom comprise of a migrant community living in the UK holding their cultural identity. Social anthropologists describe three levels of cultural behaviour. The first level is what people say they do (for example during interviews), secondly what they are observed to do and thirdly what is the underlying belief system that drives their behaviour (Bandura, 1977). The latter level suggests that beliefs and perceptions may shape behavior. Exploratory qualitative data from this thesis suggests that South Asian's perspectives of health and well-being can influence their health behaviour. A description of a healthy diet and a considerable knowledge and understanding of what is healthy and unhealthy was reported by the second generation participants.

However, the first generation responses indicated a more limited set of responses and limited knowledge about a healthy life, which does not necessarily indicate a knowledge deficit, but that a range of prevalent socio-cultural factors are shaping perspectives. Chowdhury *et al.* (2000) discussed the significance of beliefs on food choices, stating that the successful promotion of healthier food choices by members of any cultural group is established upon the understanding of how people of that particular group classify and select the food they eat, and equally important what they choose not to eat. Participants in this study reported the belief that a person with 'no disease' was called a healthy person, thus absence of disease was associated with health. This implied that their understanding of healthy bodies and a healthy lifestyle is important in informing their health beliefs. This perspective links to Beishon and Nazroo's (1997) viewpoint that health beliefs can be helpful to understand our bodies and make sense of what is going on with them. Improved knowledge and information about health was considered helpful by the participants for an improved healthy lifestyle, the knowledge of what is healthy and unhealthy is important as it may determine their health behaviours. Participants acknowledged the significance of knowledge and information and believed that it played a key role in the development of healthy behaviours. Health beliefs are important in determining the assimilation of health messages and the likelihood of acting upon those messages (Bury, 1994).

First generation participants reported that lack of knowledge and information was a significant determinant of unhealthy practices, and mainly relied upon the food and diet information communicated from ancestors to descendants influenced mostly by family traditions and transmitted from one generation to the next. However, the second generation appeared to be more informed and compatible with Western contemporary knowledge about health and healthy lifestyles. Web based knowledge and health messages were the only source of information among the second generation participants, whereas first generation participants revealed that they gained a lot of information about health from their children who they thought were more informed and knowledgeable. The demonstration of perceptions of unhealthy practices as a serious concern by the respondents indicated their perspective and belief towards a healthy lifestyle. This is in line with Smith *et al's* (1999) study, who found that beliefs are consequential in the understanding of preventive measures and to what extent those measures can reduce adverse health events. It also may determine the

level of control an individual perceives over the factors affecting health. The participants' responses indicated the importance of healthy eating and physical activity, but the relative importance did not appear to influence their beliefs.

5.3.1 Perceptions of Food and Physical Activity

In exploring health beliefs and perceptions, it is important to understand the food consumption experiences of ethnic minority groups, with a special focus on the perceptions of that minority group not only of its own food but also a range of external factors such as stress, socio-economic conditions and health conditions, amongst others (Rankin and Bhopal, 2001).

Participants in the present study professed some knowledge of healthy food, especially the younger generation who exhibited a good knowledge of healthy eating and lifestyle related risk factors contributing to lifestyle related diseases. This is in line with other research findings (Darr *et al.,* 2007) that found that South Asians perceived traditional food as detrimental to their health, and poor diet was thought to be attributable to the incidence of heart disease. However, it was found that most South Asian participants consumed at least one traditional meal each day (Darr *et al.,* 2007). Conversely, the food was considered a source of maximum energy intake, for example fats were considered healthy by the participants. Similarly, some respondents revealed that the development of unhealthy practices were due to the exposure to a new food culture after migration (e.g. processed foods were considered healthy). Healthy eating was mixed up with dieting and the word 'diet' appeared to be a short-term plan (a phase away from the 'norm') rather than a lifestyle. The practice of 'dieting' or healthy eating could be carried out for some time and it cannot be adopted permanently. Increased risk of disease was not often related to the risk factors, that is, fats were considered crucial for a healthy body. Information regarding fats as a risk factor for heart disease was confounded by the beliefs that fats are a good source of nutrition and lead to a strong body, especially for children, such as the prevalence of 'paratha' (flat bread, made of dough and fried in butter ghee).

In this study, most respondents did not feel fast food would pose a danger to health unless excessively consumed. Excess was usually defined in terms of routine consumption. Fast food and all readily available foods were considered unhealthy by both generations, however they held the belief that homemade fast food (e.g. burgers, pizza, chips) was healthy because of the use of good quality oil and better hygiene. Similarly, Darr *et* al. (2008) found consumption of various fats among South Asian patients in their study, they stated that sunflower oil was routinely used, olive oil was seldom used, and few participants consumed "ghee" (clarified butter). Bhopal (1996) argued that several foods are consumed frequently among Indian subgroups that are believed to have health benefits and medicinal properties. In the current study the perception of fatty and fried foods were that they are a source of energy, whereas food rich in saturated fats is widely known as a risk-factor for high blood cholesterol contributing towards coronary heart disease (Anderson *et al.,* 2005).

A few responses from the first generation indicated that excessive oil and maximum use of spices make South Asian curries unhealthy. However, the majority of participants from this study believed that South Asian curries are still better than fast food. In contrast, most of the second generation participants defined healthy food as food that is not deep fried and not too spicy. The concept of healthy food was associated with a balanced diet that includes green vegetables and fruits. However, these participants seemed to be more likely to consume food or junk food at the same time, for example Anisa in her 30's preferred having junk food as a replacement of one complete meal as she had a perception that junk food had the same or probably less calories than a complete meal.

The existence of the 'healthy migrant effect' is suggested, which refers to the notion that migrants are in better health at the time of migration (Lauderdale and Rathouz, 2000). However, it is also known that the health of many migrant groups deteriorates overtime (Condon and McClean, 2016) and this may be due to changes in lifestyle and socioeconomic conditions related to the migration which could have a negative impact on health (Lassetter and Callister, 2009).

Chowdhury *et al.* (2000) asserts that availability and affordability of preferred food is a major determinant of food choices in any society. Similar beliefs were shared by second generation

participants in this study, for example they shared their experiences of a busy routine and the wide availability of fast food that appeared to be accountable for a higher consumption of readily available food. This offers an explanation for one of the components of the healthy migrant effect that social integration and acculturation may occur over time involving beliefs, attitudes and behaviours in the host society, such as drinking, smoking and diet, resulting in health deterioration (Lara *et al,* 2005; Perez, 2002).

Food made with less sugar, oil and spices were classed as a healthy food. The first generation appeared to be conflicted about non-Asian food, although some responses indicated acceptability of Chinese and Italian cuisine if prepared at home. During the discussion of healthy and unhealthy food, despite lack of knowledge of English food's definition, 'mainstream English food' was believed to be healthy because of cooking methods and the use of less oil and spices. The perception that English food is 'boiled' and without spices therefore it is healthy, indicates the understanding of healthy food among South Asian participants. This view resonates with Wyke and Landman's (1997) study where participants used the term 'English food' synonymously with convenience food. Consumption of English food did not seem to be popular among South Asian participants in the current study in spite of the belief of its utility for health purely because it was defined as 'plain' or 'bland'. However, the participants revealed that it could be used as a diet plan to reduce weight. This is quite similar to Jamal's (1998) findings that first generation British Pakistanis held the view that mainstream English food is healthier in comparison to their own Pakistani food, which is perceived as rich in oil and heavy.

Likewise, an Indian diet was perceived as an unhealthy diet by many participants due to the high amount of oil and spices. This seems consistent with the findings of Farooqi *et al.* (2000), who stated that South Asian food was generally thought of as unhealthy by participants and some evidence suggested South Asians were changing their traditional diet.

Some participants acknowledged the excessive use of fats in Asian recipes. However, they reported that the quality of the oil can reduce the harm, for example many respondents believed good quality oil does not harm health as much as an ordinary vegetable oil does, although reduced affordability due to high prices was mentioned. The perception that 'good

quality oil is less harmful' indicates limited knowledge about the use of the amount of oil and its association with health implications. Similarly, olive oil was considered the best oil for health. A general perception of 'healthier is expensive' seemed to be developed among participants as responses indicated that a great deal of awareness was being created through 'eat well' sections becoming more common in supermarkets. This has a potentially significant role to play in promoting healthy eating but higher prices are reported as a barrier to choosing healthy options. There is clearly a need for more knowledge and information to improve the understanding of general health messages related to healthy practices.

The importance of physical activity for a healthy life and improvement of quality of life was clearly acknowledged by South Asian study participants. However, some first generation participants expressed concerns that their health condition might get worse if they carried out exercise. This finding is congruent with findings from Hayes *et al.* (2002) and Rogerson and Emes (2006), who explored the barriers to physical activity and found a commonly reported barrier was perception of ill health and injury associated with being physically active. Breathlessness was another commonly reported barrier among first generation participants which clearly needs more guidance and advice from health professionals (Patel *et al.,* 2016; Darr *et al.,* 2007). Older participants particularly mentioned that older age restricts them from carrying out exercise or staying active.

The findings of this study seem congruent with Farooqi *et al.* (2000) and Darr *et al.* (2007), who noted that older South Asian participants thought it was too late for them to change their lifestyle. This perception within the first generation needs to be addressed according to the South Asian community needs. First generation participants also mentioned that their lifestyle in their country of origin was more active due to the more physical nature of everyday work compared to the UK. These findings suggest that for first generation immigrants the healthier lifestyle practices engaged with in their country of origin may have been impacted over time due to the change of lifestyle and employment type in the UK. This may contribute to explaining the initial healthy migrant effect in older age groups, and why that health advantage is reported to deteriorate over time (Rechel *et al.,* 2013). They regarded exercise or formal physical activity after a busy day as a "over use of body strength". This is consistent with what Farooqi *et al.* (2000) found in their studies exploring barriers to physical activity,

findings suggested that exercise is interpreted as a formal activity rather than an approach to lifestyle. Conversely, the second generation appeared to have more knowledge and willingness to be more active physically and expressed the view that regular physical activity can reduce health risks and are a source of stress relief. A number of comments from the second generation indicated a different attitude from their elders.

In terms of physical activity, this study also noted a significant belief mentioned by some participants that no exercise is needed for the existence of good health. The findings showed that some participants reported physical activity is only needed when your health condition deteriorates, therefore there was limited awareness of prevention strategies or of preventative aspects of the UK health system more generally (as reported by Condon, McClean and McRae, 2020). Good general health was perceived as a privilege, and a justification for sedentary behaviour. This belief seemed to influence eating behaviour as well, participants conceded that it is not necessary to be circumspect about what you eat in the absence of disease.

Studies have shown that South Asians have a general awareness of the health benefits association with physical activity (Netto *et al.,* 2007; Lawton *et al.* 2006; Farooqi *et al.,* 2000; Greehaulgh *et al.,* 1998). However, they tend to be unsure about how much physical activity is needed to gain health benefits (Patel *et al.* 2016), and there is a lack of recognition of the connection between physical activity and the prevention of disease (Chapman *et al.,* 2013).

5.4 Determinants of food choices

Food is chosen, purchased, prepared and eaten to survive, yet food fulfils not only biological needs but also represents the relationship between individuals, their culture and society, playing a vital role in the transmission of cultural norms and values (Axelson, 1986). Decision making in food behavior cannot be described through a single theory, it requires multi-dimensional perspectives including constructionist thinking to help understand and contextualise this process (Sobal and Bisogni, 2009). Thus, food is influenced by various factors as it symbolises a wide range of cultural meanings and identities (Sobal *et al.,* 2006). Decisions around food choices are complex, and ethnic food culture is one dimension of those

influential factors (Devine *et al.* 1999). Variance of dietary habits within and between ethnic groups is well documented, and it can be influenced by various factors such as food availability, socio-economic factors, religious customs and cultural beliefs (Gilbert and Khokhar, 2008).

South Asians' belief of stress as a risk factor for lifestyle diseases was demonstrated by their responses in this study, a finding that echoes Calnan's (1987) ethnographic study that reported that stress and strain were identified as unavoidable factors for heart attack prevention. Similarly, stress has been commonly identified as a risk factor for heart disease amongst South Asians in focus groups, where they felt that they were under a great deal of stress and perceived that stress is a common cause of heart disease (see Farooqi *et al.* 2000).

In the current study, participants reported less or no control over some factors influencing their health behavior, such as stress related to migration. Stress could be experienced from living in poverty and poor conditions, which can become a determinant of health deterioration among migrants (Utresky and Mathieson, 2007), negating the early benefits of the healthy migrant effect. Similarly, structural barriers to good health are identified as contributors to poor health among immigrants such as low income, poor housing conditions, education, lack of jobs and poor language skills (Jayaweera and Quigley, 2010; Johnson, 2006). To some extent it can be suggested that South Asian participants revealed a sense of externalization, that is, holding factors outside of their control for determining their health. However, themes such as 'fatalism' were not identified in the current study. In some previous South Asian studies, a sense of externalisation of responsibility was commonly communicated, citing themes such as 'fatalism'. For instance, Grace *et al.* (2008) found 'fatalism' in relation to 'God's will' and this appeared to be an obstruction to diabetes prevention work. The relationship between food choices and emotional status is complementary, certain foods could be chosen such as those with increased sugar and fat to alter an emotional state by either lifting the mood or calming nerves (Babicz-Zielinska, 2006). This highlights the role of emotions and how they can influence food preferences. Since stress was discussed in association with unhealthy behaviour among South Asian participants, it can be suggested that the stress caused by migration and its consequent circumstances may contribute to unhealthy dietary practices amongst South Asian migrant communities.

Lifestyle modifications can prevent lifestyle related diseases but less is known about whether this approach would work with the UK and other migrant based South Asian populations (Wallia *et al.,* 2013). The World Health Organisation (WHO) guidance recognises the importance of the prevention of chronic diseases and recommends reducing intake of energy from fats, limiting consumption of sugar and sodium, replacing saturated fats with un-saturated fats and increasing intake of fruits and vegetables.

Increased migration from lower income countries to developed countries constitutes a significant proportion of the host population (Holmboe-Ottesen and Wandel, 2012). Evidence suggests higher rates of mortality and morbidity linked to cardiovascular diseases (CVD) among migrants and their descendants (Gilbert and Khokhar, 2008; Darmon and Khlat, 2001; Bollini and Siem, 1995). Furthermore, type 2 diabetes is more prevalent in South Asian migrants; they are more likely to develop diabetes at a relatively early age, endure diabetes related complications longer than their White British counterparts and have higher mortality rates (Fischbacher *et al.,* 2009; Chowdhury and Lasker, 2002).

The process of migration is always associated with 'acculturation,' which refers to the acquisition of the host society's values, behavioural norms and attitudes by the migrants and their descendants (Rissel, 1997). Padilla (1980) defines acculturation as a process that acknowledges subsequent changes in both host and migrant groups when those groups with divergent cultures come into contact. Dietary acculturation is one important aspect of acculturation that reflects traditional beliefs, food related practices and cultural identity (Bhugra, 2004). Since dietary attitudes and habits have a complex array of symbolic, cultural, religious and social roles in migrant's lives, those dietary habits are often the last that are adapted to the new culture (Helman, 1990). It is evident that dietary acculturation, especially adaption of Western dietary habits such as increased portion size, convenience food (Rosenmöller *et al.,* 2011), and foods higher in fats (Condon and McClean, 2016; Holmboe-Ottesen and Wandel, 2012) may have detrimental effects on the health of immigrants including outcomes such as obesity, CVD, and type 2 diabetes (Holmboe-Ottesen and Wandel, 2012; Chowdhury *et al.,* 2006; Bhopal, 2002; Jonnalagadda and Diwan, 2002; Mather *et al.,* 1998).

Kassam-Khamis *et al.* (2000) noted that central obesity and insulin resistance was more prevalent amongst South Asians compared to Europeans and the reduction of fats and energy consumption is an effective way to control obesity. Dietary interventions do not appear to be effective as traditional foods are widely consumed by all generations within South Asian community (Mukherjea *et al.,* 2014; Leung and Stanner, 2011; Mckeigue and Sevak (1994).

As suggested in the findings, the majority of participants believed that the South Asian diet was not healthy and dietary modifications were necessary, findings which are in accordance with Anderson *et al's.* (2005) study findings which found that South Asian diets contain high levels of fat. Participants displayed awareness of a healthy diet and stated that excessive use of oil and spices in South Asian curries make them unhealthy. This is consistent with Farooqi *et al's* (2000) findings that many South Asians were aware of healthy eating and changing their diets, yet diet was not accepted by all Asians as an issue and dietary change was not accepted by all. Similarly, in the current study, uncertainty was demonstrated about how and when to bring a change in dietary habits.

It is evident that changes in different patterns of lifestyle has extreme survival implications in some chronic illnesses such as diabetes and heart diseases (De Lorgeril *et al.* 1994). Societies instill a variety of symbolic meanings to their foods and demonstrate an association of particular aspects and meanings in food presentation, preparation and consumption. Those interactions and meanings interpreted by the individuals, family or wider social networks are translated into a person's willingness and ability to change food choices. The retention of ethnic food behaviour is a perdurable aspect of migrant culture (Helman, 1994). For instance, Darr *et al.* (2007) reported that few participants in their study seemed to identify the link between poor diet and heart diseases and a desire to modify the diet due to being overweight.

Few participants in the current study noted that they have altered their eating behaviour after migrating to the UK. Less sweating and less physical activity was mentioned in relation to the changes they made after migration. Since they became less active in the UK, altered dietary patterns and consuming fewer calories were thought to be crucial to confront the health

challenges in a new country. They stated that they had cut down from three meals back home to two meals a day here in the UK and mentioned that they started using cereals instead of 'parathas'. It is well-documented that traditional dietary habits undergo modification amongst ethnic minorities in European countries. Ethnic minority groups alter their dietary habits incorporating their traditional diet with a Western diet following their migration (Gilbert and Khokhar, 2008). Gilbert and Khokhar (2008) argued that age and generation are two major factors affecting food choices and determining the extent of dietary change. However, other factors such as income, availability, religion and food beliefs also contribute to this.

Most of the first generation participants in this study seemed to have retained their South Asian traditional dietary habits to a greater extent than second generation participants, which supports a range of study findings. For example, Gilbert and Khokhar (2008) found that the UK South Asian's older generation is less likely to change their dietary habits. Although, in the current study there were a few exceptions, for example Italian (pizza, noodles, pasta) and Chinese food appeared to be accepted by first generation participants due to exposure of the next generation to those cuisines. This is congruent with Jamal's (1998) claim that being segregated from the mainstream population, older generations of South Asians are less likely to change their dietary habits. Similarly, Wyke and Landman (1997) argue that South Asian parents mostly (which indicate first generation) reported a strong commitment to South Asian styles of cooking as they do not feel full or satisfied if they do not eat South Asian cuisine especially 'roti', a type of flat bread that they loved and missed if they did not eat.

The younger generation of study participants seemed to be inclined to bring modifications to their diet and cooking methods, for example the idea of baking instead of frying to reduce the amount of oil and reduce the amount of spices. They also favoured learning modern healthy methods of cooking and applying those to South Asian cooking methods. This is consistent with the findings of Chowdhury *et al.* (2000) which state that children of British Bangladeshi participants who were exposed to different cuisines and their food beliefs and behaviours, were likely to adopt Western dishes as a supplement to their parents' food choices.

Younger participants in the current study also seemed keen on cuisines other than South Asian such as Italian. This reflects the inclination towards a change of dietary habits among young South Asian participants in particular and it has influenced their parents' choices to some extent. The perception of first generation participants about their consumption of mainstream food was regarded as something their children do and they perceived the second generation to be 'like an English' (Jamal, 1998).

These responses suggest that food choices are affected by both generation and age. The younger generation's food preferences reflected an inclination towards non-Asian cuisines as those are seen to be healthier than South Asian food. They also advocated modification of the South Asian diet and thought it to be crucial to gain health benefits. This notion highlights the fact that the younger generation of South Asian's want to bring changes to their traditional diet for a healthy diet that suggests affiliation with their culture. It can be speculated that the diet of descendants, is to some extent a reflection of their parent's diet (Birch, 1998). Many studies have found similarities between parent's and children's eating behaviours (Skinner *et al.* 2002). South Asians prefer to keep themselves closer to their cultural and traditional cuisine but demonstrate an acceptance of change as well. Their responses suggest an inclination towards modification of South Asian food, whilst no evidence of regular consumption of non-Asian cuisine was found.

The findings of the current study reflect the findings of previous studies (Anderson *et al.,* 2005; Kumar *et al.,* 2004; Jamal, 1998) that found the young generation of South Asian's were more likely to change their eating habits and adopt mainstream food because of their close association with the host country. This study opposes the view that the younger generation of South Asian's mainly consume chips, sandwiches and pasties (Jamal, 1998). Participants from the current study reported that Chinese and Italian cuisines were frequently consumed among young generations of South Asians and their association with traditional South Asian cuisine seemed to be well established. Similarly, Anderson *et al.,* (2005), Kumar *et al.,* (2004), and Wyke and Landman (1997) have argued that young generations demonstrated different patterns of food preferences. In a focus group discussion, Wyke and Landman (1997) stated clear preferences for English food, but in individual interviews in the family home, young participants expressed preferences which often included South Asian style food cooked by

their mothers. Younger participants in the current study communicated inconsistency in changing dietary habits, which supports these findings. The younger participants talked about their experience of changing eating habits due to the knowledge and information about South Asian food being unhealthy. However, their association with traditional cuisine coerced them to come back to their traditional food, it indicates that their attitude towards South Asian cuisine constitutes a challenge towards healthy lifestyle behaviours.

In the current study, participants took part in one-to-one interviews, so the issue of peer-pressure to accept dominant culture foods did not arise during data collection. The current study highlighted that both generations were generally aware of healthy eating and the need to change their diet, although a few responses indicated culturally influenced beliefs of a healthy diet. Some participants demonstrated willingness to change their diet and lifestyle. However, some participants were less willing to change, especially the first generation who placed emphasis on the need for culturally sensitive advice to maintain a healthy diet and preserve the traditional taste of food (Farooqi *et al.* 2000). This seemed to contend with the manifestation of individualism as most of the first generation participants belong to a society, with widespread poverty and lack of resources leaving people with less or limited individual food choices. In such contexts, the cultural and social framework of eating habits becomes stable and inflexible (Fischler, 1980, p944, cited by Jamal, 1998). This can be a significant reason as to why the change in lifestyle was not widely accepted among older participants of the study. The younger generation, however, appeared to be more inclined to modify the South Asian diet which might be suggestive of individualism, meaning they have more choices and independence.

Tailoring of dietary advice was much appreciated by the participants from both generations, the younger generation particularly emphasised the importance of bringing dietary changes slowly and step-by-step. This finding is consistent with a study of Pakistani women on behaviour change which noted that study participants appreciated the idea of modifying South Asian food gradually so that the change in taste would be less obvious (Penn *et al.* 2014).

5.5. Physical activity experiences and practices

Formal exercises or gyms were not very favoured by participants in the current study, but some conventional forms of exercises were appreciated. This echoes Grace *et al's.* (2008) study with Bangladeshi participants, which found that that formal exercise was seen as an alien concept in South Asian culture by the first generation and some second generation participants, and which also found that walking was the most favoured form of exercise among religious leaders and five daily prayers were widely referred to as 'exercise'. In line with the current study, South Asian participants offered an acceptance of 'walking' as an exercise in addition to house chores, parental responsibilities, shopping and everyday chores which were all referred to as 'exercise'. Since those chores were part of daily life, a formal exercise routine was not viewed necessary. Participants in the study admitted that walking is the most convenient, socially acceptable and feasible physical activity that they can do persistently and could fit into a busy routine. Similar findings reported walking was a preferred form of exercise, however few were successful in walking regularly (Darr *et al.,* 2007). Participants of this study, particularly second generation participants viewed some occasional activities with their children as a form of exercise. This attitude might be a reflection of the first generation who typically believed that any kind of body movement is classed as a physical activity and no extra physical activity is needed.

Both generations shared the view that physical activity is crucial to confront colder weather and its impact on their health. They reported that in cold weather more food is consumed to keep your body warm which might be attributable to weight gain and unlike back home, the chances of sweating are less due to the colder weather. Many responses suggested irregular patterns of exercises and physical activity among study participants. The younger participants, despite understanding the importance of physical activity for a healthy life, could not set a regular pattern of exercise due to a busy routine, poor motivation and lack of time.

Participants from both generations associated sweating with burning calories and losing weight, which contrasts with the findings of Lawton *et al.* (2006) who explored barriers to physical activity among South Asian participants and established that sweating and increased heart beat was perceived as an illness state and something to be avoided. It can be argued

that first generation older participants were less keen on exercise mainly due to age factors and the apprehension of making health conditions worse. However, the second generation appeared to be eager to get more physically active.

South Asian participants revealed different forms of what they thought was a physical activity and that they were engaged in during day-to-day life. Both first and second generation participants mentioned conventional physical activity as a challenge and the use of exercise machines did not appear to be popular. Gym and exercise machines were perceived as an organised physical activity, which they thought was hard to maintain. However, housework and employment-related work were perceived as sufficient to gain health benefits (Patel *et al.,* 2016). Participants of this study believed that if the nature of the job or housework requires a lot of body movement, any extra exercise or physical activity was unnecessary. For instance, a postman and a customer service representative involved in shelving stated that, being involved in physical jobs they do not need any extra physical activity. This is consistent with the findings of a qualitative study that found limited understanding about the frequency and duration of physical activity required to gain health benefits. Misunderstandings about the benefits, frequency and duration of physical activity appeared to be barrier to engaging in physical activity (Horne *et al.,* 2013). Similarly, going shopping, walking aisle to aisle, parking the car further away and taking the stairs were all considered a good physical activity and substitute for more rigorous activity. Disinclination to formal and regular physical activity provides an explicit perspective which could be taken into account when engaging with the South Asian population. It also helped to deeply explore and identify those factors involved in that declination. It can also be assumed that due to various factors involved there are factors, such as family and financial responsibilities that were prioritised over physical activity (Patel *et al.,* 2016).

5.6. Barriers and Facilitators towards healthy lifestyle

5.6.1 Individual/personal constituents

Personal preferences and lack of strong willpower were major barriers to engaging in a healthy life, many participants reported. They believed that their lack of determination and willingness was the biggest obstacle towards a healthy life. Self-motivation was considered a crucial factor that can influence food choices. They stated that health professionals could only bring awareness through information dissemination and it was the responsibility of individuals to put that knowledge into practice and make healthy choices. A lack of motivation towards changing behaviour due to different factors were demonstrated by the participants. Despite a good knowledge and awareness of healthy eating, participants appeared to be less motivated to bring about healthy changes. Tastes and flavors associated with traditional food seemed to be a significant barrier among South Asian participants of the study, which is consistent with similar studies that revealed that 'taste' is the most important influencing factor on food choices followed by cost (Glanz *et al.,* 1998).

Long-term association with the taste of South Asian foods was another strong determinant of food choices. Many responses were suggestive of taste preference over health; changes in diet were acceptable to some extent but compromising the traditional taste of food was not. This belief was consistent with previous research on South Asian patients diagnosed with CHD, who did not seem to compromise on the taste of their meals to help improve their health (Farooqi *et al.,* 2000). Similarly, Glanz *et al.* (1998) stated that taste is an important determinant of food related decisions, it appeared to be a key predictor of food choice (Nguyen *et al.* 2015). The taste developed over time becomes a barrier to adopt maximal changes. However, minimal or short term changes seemed to be acceptable. It is suggested that long established eating habits are actively constructed throughout the life course; early family cuisines and personal food preferences offer 'food roots' and 'food upbringing' that lead to the development of food identities and helps form habitual patterns of food choices over time (Devine *et al.,* 1999).

Previous research suggests that South Asian participants who altered their diet did not enjoy their meals cooked in minimal oil, and went back to their traditionally prepared food with large amounts of oil (Darr *et al.,* 2007). Taste is believed to be the main motivator of food selection along with other influential factors including the smell, texture and appearance of food (Mela, 2006). The term 'diet' was used for healthy eating which generally included grilled food, vegetables, salads and sometimes 'English food' which was considered healthy. Yet, the younger generation seemed to be motivated towards healthy food, not necessarily traditional South Asian food but other cuisines and appreciated the idea of modifying traditional food to make it healthier. The first generation participants appeared to be less motivated to alter their food behaviour despite knowledge of what constitutes a healthy and balanced diet. Less priority was given to dietary modification by the first generation, despite advice from health professionals. Similarly, the younger participants stated that their experience of changes in dietary habits were not consistent, and they usually come back to their normal (South Asian traditional) diet. Dietary changes were not permanently adapted. Their long established eating habits hinder healthy changes. The young generation's challenges related to consistency might be suggestive of permeation of their parents' beliefs and traditional eating habits that are culturally embedded.

Research in South Asian and black communities commonly found similar influencing factors to the general population such as enjoyment, health and social benefits, and barriers associated with lack of physical activity among South Asians are not dissimilar to the rest of the UK population Withall, Jago and Fox (2011), one of the major reasons given by the South Asian people for their low level of physical activity was a lack of motivation (Rai and Finch, 1997). The main reason for the lack of motivation appeared to be high level of stress due to poverty (wider social determinants), which is widespread in this community (Rai and Finch, 1997).

5.6.2 Lack of motivation as physical activity least prioritised

Lack of motivation, laziness and tiredness were constantly reported factors that appeared to be major barriers to engaging in an active life. Those intrapersonal factors were more apparent among first generation participants of the study. Despite reporting positive beliefs

of the potential health benefits associated with physical activity, uptake of exercise became less important among older participants in this study. The younger participant's beliefs and attitudes were not dissimilar to those of first generation older participants. Many participants of the study asserted that laziness and tiredness are the major barriers leading to inactivity and sedentary behaviour. Lack of time was another frequently reported barrier that is again indicative of undertaking physical activity was not considered important among South Asians. Despite both generations reporting positive beliefs about physical activity in this study, undertaking physical activity was least prioritized, which supports previous findings with S.A participants (Horne *et al.,* 2013; Darr *et al.,* 2007).

Many young participants asserted that after a busy day rather than going to the gym or doing exercise they preferred to spend time with their families. Lack of time was also reported as a major barrier to increasing physical activity levels in previous research with South Asian people, (Rai and Finch, 1997). They noted that this community confronts the difficulties of combining home and work responsibilities, with long working hours and childcare cited as fundamental reasons for not taking up physical activity. Similar findings were suggested in a recent Australian study, that found 'lack of time' was a significant barrier among young participants (Thomas *et al,* 2011). Many participants stated their immigration status and the burden of heavy financial responsibilities, not only for their own families but also for their extended families (in most cases families back home), compel them to work long hours not leaving enough time to carry out physical activity. Maintaining immigration status was also reported as a big financial challenge as it required funds to pay for visa renewal requirements. The citation of lack of time as a barrier to physical activity may also suggest something about the relative value of physical activity compared with other possible leisure time activities, which were given preference. For example, a female Pakistani participant acknowledged that in her free time she would relax and watch television as she thought that spare time is for herself, she wanted to treat herself by relaxing and she didn't want anyone or anything to interrupt that certain time. This clearly demonstrates the hierarchy of preferences on the scale of which physical activity seemed to be near the bottom. These findings are in line with the research by Rai and Finch (1997), which indicated that South Asians gave low preference to physical activity, leading to little opportunity to engage in leisure activities in their spare time.

Less active persons from the first generation described a range of personal long-term medical conditions that were affecting their health, consequently, they were not able to perform physical activity advised by their doctors or health professionals (Horne *et al.,* 2013). Many first generation respondents were reluctant to engage in physical activity because they had anxiety and fear that their health condition might worsen despite believing that physical activity might bring potential physical benefits. For instance, a female participant reported, despite her doctor's advice, that she has never done any exercise because she had a fear her asthma might get worse. Lack of time and other medical conditions prevented them from participating in physical activity. This indicates lack of understanding, knowledge and information associated with health conditions and physical activity that needs to be addressed urgently through not just health education programs but other effective behavior change interventions. Horne *et al.* (2013) reported lack of motivation for physical activity due to old age as a limiting factor to undertaking exercise; which is not dissimilar to the current study findings that reported the first generation were less motivated than the second generation, and some responses suggested that this was due to ageing factors. Beliefs about advanced age significantly influenced the behaviour of first generation participants who believed that vigorous exercise was unnecessary in their age context (Darr *et al.,* 2007). However, the younger participants (from both generations) of the study appeared to be more motivated and aware of the potential health benefits related to physical activity and the negative association of physical activity with adverse health conditions was not prevalent in their responses.

Similarly, a few participants mentioned that they have indoor exercise equipment at home but do not use it due to 'laziness'. This affirms that South Asian participants of the study appeared to be clearly aware of the health benefits of physical activity and they also mentioned time constraints had not been always an issue, for them it all comes down to 'laziness' and less motivation towards physical activity. The first generation participants in particular asserted that they had never taken part in a regular and organized physical activity, the reasons for this included intrinsic factors such as 'tiredness and laziness'. The young participants stated similar deterrents to inconsistent and irregular behaviour towards physical

activity. Many young participants acknowledged that they had plenty of time after coming back from work but they prioritized and preferred family commitments rather than exercise. Many responses indicated that spare time was consumed in more enjoyable activities than body workouts. Exercise was viewed as a hectic activity and potentially an addition to their tiredness hence it was not acceptable. The belief of a body worn out after exercise, was quite apparent from the responses of the participants and this belief was similar between both generations. This indicates the need to provide knowledge based interventions to help address misconceptions.

It is evident that physical activity can control symptoms of chronic diseases and improve general health and well-being (Philips and Currow, 2010), but it is also clear that merely being aware of the importance of physical activity is not enough to motivate older adults to uptake or maintain physical activity (Horne *et al.,* 2013). It is thus important to understand different factors which act as barriers to the adherence of physical activity among South Asian ethnic minority groups.

5.6.3 Gender roles and the construction of lifestyle

Fikree and Pasha (2004) assert that the distribution of gender specific roles and the choices of households on the basis of individual and societal beliefs means that women are disregarded in relation to health and health care. Challenges associated with gender and its role were suggested by the participants in this study, due to the allocated framework of responsibilities for men and women in South Asian culture. Participants revealed that women are generally responsible for food preparation and looking after children, and men are held responsible for producing income. The major gendered role of women is preparing and presenting food to their families in South Asian communities, in this regard they act as 'gate keepers' by representing their source of power, respect, familial and community values through traditional foods (Raman, 2011; Avakian and Haber, 2005; Counihan, 1999; McItosh and Zey, 1989).

Female participants in the study expressed their views of having less chances to get involved in outdoor physical activities due to a huge amount of household responsibilities. This echoes

South Asian women's overemphasis on their responsibilities toward their families and subordinating themselves to men (Vallianatos and Raine, 2008).

It is a norm of South Asian culture that men do not participate in cooking or food preparation, some participants reported men's participation in cooking, cleaning and washing was considered inappropriate and culturally unacceptable. This is reflective of the cultural construction of gender and power, and a generalisation that serves as the construction of South Asian group identity within the host culture. This in many ways challenges Vallianatos and Raine's (2008) findings that report that gender roles and relations are often exhausted and modified as a result of migration, which results in a shift of gender related power dynamics. South Asian participant's viewpoints in the current study reported a consistency within their gender roles and did not identify a power shift due to migration.

For example, the kitchen was considered the women's domain by study participants. This has the potential to make South Asian men less empowered in terms of food preparation as they seemed to have a lack of control over preparing or cooking food (see also Emadian *et al.* 2017; Grace *et al.* 2008; Maclagan, 1994). Conversely, female participants in the current study reported that male members of the family can influence their kitchen activities by dictating their own food choices. South Asian women subordinate their own preferences and endeavor to meet other family member's likes and dislikes when planning meals (Vallianatos and Raine, 2008). Many responses indicated, in terms of food choices and making healthy diet modifications, that women are believed to have more responsibilities than men. However, it can be argued that since male members of the family manifest their influence on household 'gastro-politics', they increase their opportunities to incorporate their food choices with the healthy diet modifications.

The current study found that male participants seemed more knowledgeable and aware of healthy food and diet than female participants, which is in contrast to previous findings that South Asian men reported their wives were more aware of food and diet than they were (Emadian *et al.,* 2017). Findings from the current study suggest that men can play a role as an informed family member to educate female family members who are solely responsible for food preparation to alter the cooking methods and make healthy changes in daily routines.

As far as special occasions within the community were concerned, the motivation to change and modify diet becomes a challenge. The majority of South Asian men stated the belief that cultural events, including religious events and weddings, play an elemental role within the South Asian community and have a huge impact on eating behavior. Emadian *et al.,* (2017) also found that little control over food preparation and lack of healthy options available on these occasions.

5.7 Impact of social and cultural constituents on health behaviour

'Culture' refers to a group who tend to share similar beliefs and values, it is a multi-faceted, largely symbolic, dynamic and constantly changing process that is shaped by social, historical and geographical factors (Singer, 2012). Hence, intergroup variations in behaviour and lifestyle are influenced by different factors such as migration (Hunt *et al.* 2004). Cultural setting, social behaviour and cultural norms appeared to be key factors influencing food choices and taste preferences. Culture widely influences diet and physical activity behavior; cultural differences and lack of shared language skills between patient and health service providers make it a great challenge (Sucher and Kittler, 1991). The cultural background and social environment are powerful indicators of an individual's dietary habits that determine the foundation of the rules for a culturally appropriate cuisine (Mela, 1999). A review of dietary habits among minority ethnic groups in Europe revealed that most of the migrants commonly alter their dietary habits following migration and this includes some unhealthy elements of the host country (Gilbert and Khokhar, 2008).

One function of food is to propagate ethnic identity and food plays a vital role in constructing cultural status, with a lack of ethnic food presenting as a symbol of isolation (Vallianatos and Raine, 2015). Cultural and ethnic associations with food seem to have a very strong influence on food choices in ethnic minority groups. It is argued that food is the last thing to be changed or adopted in the context of immigrants (Mennell, Murcott and Van Otterloo, 1992).

Participants of the study widely communicated the key quality of their cultural food was extreme flavor and taste which can only be achieved by using high amounts of oil and spices (as discussed previously). They also mentioned that less spiced food was not acceptable and

against the hospitality norms and such food was associated with 'patient's food'. Hence, dietary change was not appreciated, especially by the first generation participants, which might be suggestive of their fear of losing association with the culture and tradition. Family, social and community pressure to conform to the social norms and values in South Asian culture is important and acts as a facilitator or barrier to living a healthy lifestyle (Patel *et al.,* 2016).

The participants conveyed that dietary change was unacceptable because lack of taste and blandness was a major concern if the traditional recipes were to be changed. This is consistent with the findings of a study (Lawton *et al*., 2008) with South Asian diabetic patients, where participants reported that changing the way of preparing food was not very practical because it would interfere with the taste.

South Asian participants were not only concerned with the lack of taste of English food but also the appearance of the food as well (Hempler *et al.,* 2015). The participants of the current study also reported that dietary modification could be obstructed by friends and families who visit and whose food preferences were adhered to. The beliefs explored in the current study were not dissimilar to these, with the majority of respondents noting that communal feasts and visits from friends and family hinder the adherence of food modifications. Family member's expectations seemed to be an influential factor upon food choices especially among first generation participants of the study as many female participants mentioned their family members would not like the food if it was changed. This is supported by the previous study of Ludwig *et al.* (2010), who found a strong influence of family expectations on food preparation and consumption. Similarly, Cross-Bardell (2015), noted the difficulties related to dietary change as embedded within South Asian households as elder members of the family (heads of the family) had influence over food choices which makes it even harder to make dietary changes.

Food constructs and further develops connections with other people; the company of others is preferred whilst eating because it enables the establishment of relationship within families, groups, communities and other social units (Sobal *et al,.* 2006; Sobal and Nelson, 2003). In

this regard, South Asians beliefs in this study manifest as social determinants of their current dietary behaviour.

The South Asian community is characterised as a close-knit group holding the tradition of extended families. It is common practice that women live in traditional forms of extended family, not necessarily under one roof but with family members living nearby. It can be argued that women in the South Asian culture are mainly responsible for the day-to-day running of their homes and consequently they have less time for themselves (Carroll *et al.* 2002). This seems, to some extent, to be congruent with the findings of the current study as mostly first generation female participants asserted barriers such as safety issues, lack of time due to household responsibilities, lack of motivation and laziness. Grace *et al.* (2008) noted that women in South Asian culture were expected to remain at home, dress properly and prioritise family and community over independence and social freedom. Mixed exercise classes and running in public appeared to be religiously disapproved of and women's exposure outside in the community can pose challenges to their modesty, privacy and security particularly for Muslim South Asians. To some extent the findings of Grace *et al*. (2008) support the current study findings, however the female second generation participants did not appear to be influenced by such beliefs. The belief of motivation and safety issues were mainly noted by the first generation participants, the younger generation generally acknowledged lack of time as a major barrier to taking up physical activity. The frequently mentioned barrier 'lack of time' reported by the young participants was due to entirely different reasons to the first generation participants. The reasons for lack of time included excessive use of electronic media, television, and computer and video games, especially non-active video games which were the major cause of sedentary behaviour among young participants. They expressed that in the world of entertainment, these online activities take up most of their time leaving them with no time for more productive things such as physical activity. This indicated a similar belief to the first generation participants who noted lack of time due to the relative value of physical activity compared with other possible activities where it held little appeal in their spare time. One 19 year old participant noted that he was advised by parents to perform well academically and that should be a primary goal, in his situation health and being active was generally not a priority.

Research exploring barriers and facilitators of physical activity in South Asian children has found that physical activity was not a priority among the South Asian community. Cultural influences impact their belief suggesting a very low level of importance is given to physical activity compared to academic pursuits for their children. This depicts a mindset that sport is a waste of time and that children would be better off learning a skill or making money (Smith *et al.* 2018). It also indicates socio-economic factors, such as low socio-economic status and access to health and leisure provisions, which are often ignored by researchers (Carroll, Ali and Azam, 2002) and highlights the influence of elders on health behavior in South Asian culture as noted by Ludwig *et al.* (2011), whereby the lifestyle patterns of the elders are passed onto the next generation.

Many participants expressed their interest in keeping fit and engaging in physical activities in leisure centres and joining gyms. However, many barriers prevented them from participating in physical activity in these ways. Barriers to joining the gym included distance of travel to the activity or leisure centres and many responses indicated if the locations were nearby they would have joined. In particular, female participants mentioned their need for peer support to go to gym as they did not feel confident to attend on their own. This indicates structural barriers which prevented them from making use of leisure centres, and demonstrates the nervousness they had about the gym or activity centres. Farooqi *et al.* (2000) stressed the importance of the provision of both individual and community interventions, whereby health professionals need to know the requirements and needs of certain groups of South Asians to overcome the cultural barriers to exercise such as the provision of gender-specific venues for physical activity for women and special provision for older people. This is supported by Rai and Finch (1997), who identified some barriers to physical activity related to the provision of culturally appropriate facilities such as lack of privacy and gender separation in addition to problems such as having no one to go with and inaccessibility due to distance or lack of transport and inconvenient opening hours. Inaccessibility due to the cost involved was also mentioned by some participants. The best solution to this issue appeared to be exercising in their homes or in the community centres, however this was challenged by overcrowded houses and unwillingness to travel to the community centers.

The first generation older participants stated that they were more pressured by society and cultural norms than the younger generation as the second generation appeared to be resistant to such pressure to conform. Insecurity, safety concerns, weather conditions and darkness in the winter season were the most common barriers stated by first generation participants. Female participants did not appreciate the idea of going outside for a walk in the dark without a male member of the family. This is consistent with the findings of Caperchione *et al.* (2009), who investigated the barriers to physical activity in migrant groups and found safety as a major barrier to physical activity amongst women from culturally and linguistically diverse migrant groups. Young participants of the study however did not mention cold weather or darkness as a barrier to physical activity, although it was mentioned that rain might stop them from outdoor physical activities. Walking and sports were the two most favoured forms of exercise among young participants.

Male participants of the study shared that after migration their responsibilities became twofold as they have to support their family in the UK and support their extended families back home. They felt they were too busy earning for their families and they could not spare time for exercise. Patel *et al.* (2016) argued that besides contextual factors, cultural and social barriers are also important and should be taken into account when engaging with the South Asian population in preventative strategies.

5.7.1 Cultural Identity

Inevitably, cultural identity plays an important role in the development of food and diet preferences (Devine *et al.,* 1999) and food practices are often used to construct cultural identities; migrants often desire to conserve their dietary habits since a strong relationship between food and identity is established (Gabaccia., 1998). Migration involves a number of challenges including adapting to new lifestyles and the re-conceptulisation of self and ethnic identities may be part of this procedure. Association with food and food ways provides an understanding of the demarcation of socio-cultural boundaries. Migrants expect to retain their cultural practices and identities (Buijs, 1993) and food is an essential component of maintaining connections across time and place for many migrants (Vallianatos and Raine, 2008).

The findings of the current study show that the first generation of South Asian participants appeared to prefer traditional food cooked in a traditional way, although some perceived components of South Asian food as unhealthy. The fundamental rationale for their preference of eating traditional meals includes rich taste, spiciness, long established eating habits and cultural and traditional associations with food. Some participants however viewed South Asian food as healthy but the traditional way of cooking was thought to be unhealthy. Many responses suggested the current eating habits of South Asian participants were vastly influenced by the traditional South Asian way of cooking. South Asian food is rich in carbohydrates, roti or chapati (flat bread) and rice are staple foods combined with curry to make it a complete meal. Curry may include meat, chicken, fish, vegetables or pulses cooked in a traditional way with the combination of fried onion, garlic, ginger, different herbs, spices and a heavy amount of oil.

Changes in meal patterns and the incorporation of new components of food and cooking methods is noted in migrant groups (Vallianatos and Raine, 2005; Ray, 2004; Satia-About *et al.* 2002). Boiled, grilled or baked vegetables, cooked with less oil and less spicy food was considered healthy, however it was perceived to be a short term 'diet' programme rather than a lifestyle. After some time of having such a (non-South Asian) diet they may just return to their traditional diet routine. Participants in this study often used the words 'we' and 'us', symbolising the diasporic identity. It is commonly agreed that revitalization of ethnic foods is crucial to preserve ethnic identity (Douglas, 1984) as losing traditional dietary practices and inclination to mainstream foods is considered desertion of community, family and religion (Gabaccia, 1998). Identity construction is a social process, and traditional food choices and practices are a symbolic expression of self. How individuals are situated in relation to their families and communities can be revealed by understanding this process (Vallianatos and Raine, 2008).

Similar beliefs were demonstrated by South Asian participants in Darr *et al'*s (2007) study, where participants talked about their experience of reducing dietary fat intake. However, they could not resist the taste of traditional food and low-fat food was less reported among

South Asians, they also reported that social events and visiting people presented a barrier to their dietary modification.

The influence of tradition and culture upon food choices was a key theme of the current study, data confirm the importance of traditional cooking methods among South Asian participants. This reflects the findings of Smith *et al.* (1998) who explored family hospitality and ethnic traditions among migrant women in Scotland and found that South Asians were more attached to their traditional foods, they spent longer hours cooking and significant importance was given to elaboration of cookery in terms of recipes of such meals.

Food choices are influenced by sociocultural norms as suggested by the responses of South Asian participants that living with immediate and extended families constitutes a challenge to make or maintain healthy changes in South Asian culture. They argued that South Asian households restrict healthy eating as it becomes difficult when decisions of the daily family meal are made by the mother or elder female member of the family. Since men are not involved in cooking much they have limited influence on meal choices. Participants communicated that having the family meal together is a traditional norm of South Asian culture and dietary changes are hard to maintain as they have to respect other family members' food preferences.

5.7.2 Hospitality as cultural signifier

Data from this study confirmed that social and cultural events are major barriers to healthy eating; community gatherings and cultural festivals are central to the social lives of participants and their responses suggested that food is the key element of those occasions. Those cultural factors appeared to be major challenges to food modifications. Hospitality seemed to have greater attachment to traditional foods; entertaining relatives and hospitality meals could be related to the issues of status, concerns about reputation and rules of respect, hence the highest proportion of income was spent on food among South Asians (Smith *et al.* 1998). Many responses suggest the importance of traditional food on social events and how food context has given added weight to the issues of respect, reputation and mannerism. An obligation to serve particular customary foods and elaboration of food in culture indicate

rules of respect for the guests. Not serving guests with plenty of choices of traditional food is thought an antisocial norm and guests are not considered welcomed if less served. This supports the findings of Patel *et al.* (2016), whereby reducing the amount of oil or ghee (clarified butter) could be shameful.

Reciprocal behaviour was expected from the guests, the current study suggested saying 'no' to traditional foods on those social occasions was considered offensive. Participants argued that they have to eat food served in parties and social gatherings, and saying 'no' is bad manners as a lot of effort and hard work is invested in food preparation.

To provide hospitality appeared to be a significant norm of South Asian culture and seems to be a barrier to adopting healthy changes among South Asians. Hospitality does not have great nutritional importance when it occurs less often, however it becomes nutritionally significant when it becomes frequent (Bush *et al.* 1998). Food has a social role in the South Asian community, Grace *et al.* (2008) suggests that foods are cooked in compliance of the South Asian community's cultural expectations. Food was conceived as central to the social and cultural lives of South Asians, which poses a great challenge for dietary modification, particularly the importance of sharing traditional food that is usually high in fat and sugar, and is crucial to the maintenance of social relationships and cultural identity (Cross-Bardell, 2015).

Food prepared with less oil or reduced spices is considered inhospitable and it is suggested that generosity is compromised if 'white' or 'pale' curries are served. Family influence on food preparation and forceful advice is commonly received from elder members of the family. Women in particular are assigned duties to look after the household and they act as culture-bearers. Men also have the responsibility of maintaining traditional cultural practices such as hospitality, advice for preparing food for the guests and celebratory meals (Ludwig *et al*. 2010). In the current study, it was evident through the responses of participants that community gatherings and communal feasts were central in the South Asian community and food had a key role within religious and other social events. These events appeared to be a significant barrier to dietary modifications. Participants communicated that it is important to adhere to the food preferences of families, neighbours and friends on different social

occasions. Similarly, being a guest and visiting other families and having traditional food prepared by the host family hinders the efforts made towards healthy eating. It is because not having that food or saying 'no' to it would be considered rude, likewise not serving traditional food to the guests is also viewed unsocial, shameful and unwelcoming. Likewise, Penn *et al.* (2014) claimed that the social responsibilities of South Asian women and the provision of hospitality as a norm of culture sometimes becomes detrimental to their progress of achieving a healthy lifestyle.

5.7.3 Socio economic challenges and barriers

Socioeconomic factors such as low income and lack of access play a detrimental role in physical activity behaviour (Caperchione *et al.,* 2009). For example, it was proposed in this study that migrants are often coming from South Asia to European countries as a consequence of economic hardships and they have to support their extended families. Their efforts towards regular and consistent engagement with physical activity are often crippled by their financial situation (Rai and Finch, 1997).

With regard to generational differences in dietary behaviour, it can be argued that they may be attributable to the length of stay (Rai and Finch, 1997; Fieldhouse, 1995) and socioeconomic conditions (Lip *et al.,* 1995; Kassam-Khamis *et al.,* 1996). According to Shelton (2005) lower socioeconomic status and poverty are significant determinants of unhealthy eating habits. High fat intake was found predominantly in Bangladeshi and Pakistani dishes (Kassam-Khamis *et al.,* 2000), the use of Bangladeshi cooking methods that were high in fat content were in practice among most recent arrivals in Britain from very poor rural settings (E.g. Sylhet). The greater use of commodities such as meat and cooking oil is explained by their desirability and affordability (Fieldhouse, 1995; Lip *et al.,* 1995). Migrants from lower socioeconomic communities often find low-paid work and have shown the trend of consuming poorer quality food, which is higher in fat. They also consume less fruits and vegetables, indicating a higher risk for coronary heart disease in this group (Kassam-Khamis *et al.,* 2000). Poorer economic conditions are an important factor determining dietary practice (Gilbert and Khokhar, 2008). Incorporation of new food elements and previously inaccessible and rare foods may reflect socioeconomic advancement and an improved status

(Diner, 2001). Kassam-Khamis *et al*. (2000) noted fat intake and extra oil/fat was used to substitute meat especially in vegetarian dishes among some of the South Asian groups. There may be a range of factors associated with unhealthy culinary practices, such as a desire to eat food that was previously inaccessible or less available (Diner, 2001).

Conclusively, it can be argued that external barriers including lack of time (Bond *et al*. 2013; Peacock, Sloan and Cripps, 2014); adverse weather (Bond *et a.,* 2013); and family/work demands were commonly reported in the general population, therefore we can assume that UK South Asians experience external barriers which are similar to much of the general UK population. However, sociocultural specific factors such as hospitality, gender specific roles in South Asian tradition and issues of modesty are more uniquely experienced.

5.7.4 Health professional advice

Study participants emphasised gaining more convincing, simple and motivational advice from health professionals. They believed that health advice should consist of culturally informed guidance to change lifestyles, and should be coherent to their cultural needs, an issue noted in other studies (see Hempler *et al.* 2015). Lack of professional advice was widely reported by many respondents because the communication between them and health professionals appeared to be poor. This echoed Farooqi *et al's* (2000) findings suggestive of tailored health promotion advice which should be culturally sensitive, and highlights that it may not be enough to advise on changing diet but emphasis was placed on the need to provide culturally specific advice.

Language appeared to be a key barrier to accessing health services in Farooqi *et al's.* (2000) study and others have also found that access to health promotion is often hindered by the language and failure of health professionals providing advice on diet, physical activity and reducing the risk of disease (Horne *et al.* 2010; Sriskantharajah and Kai, 2007; Farooqi *et al.* 2000). In the current study, language was not indicated as a barrier towards gaining health advice. The participants however highlighted on many occasions that they wanted practical advice on physical activity and diet which should not be too complicated, should be more helpful than existing advice, and easy to implement. Some responses reflected frustration

upon not receiving support or advice from health professionals. This seems consistent with other research findings that noted South Asian participants shared their experiences of culturally inappropriate dietary advice from health professionals (Cross-Bardell *et al.* 2005). A previous study noted Bangladeshi and Pakistani migrants consumed traditional food more than the other migrant groups (Kassam-Khamis *et al.* 1996), consequently the current dietary advice from professionals does not appear to be effective to those South Asians diagnosed with diabetes and heart disease (Mckeige and Sevak, 1994; Kassam-Khamis *et al.* 2000). Therefore, it can be argued that in more traditional South Asians (i.e. the first generation group in the current study) targeting the alteration and modification of traditional cooking methods and practices by providing lower fat recipes could be a more effective approach than suggesting boiling, steaming and grilling food (Kassam-Khamis *et al.,* 2000).

5.7.5 Environmental Barriers

Participants of the study, especially first generation female participants reported security concerns, lack of confidence due to mobility and lack of family support as barriers to physical activity, in particular these factors discouraged female participants from carrying out outdoor physical activity. A change in climate may also affect migrants and influence their physical activity behaviour, especially those who migrated from countries with warm and dry climates to more varied climate countries (Caperchione *et al.,* 2012). The study participants made a comparison between the UK's weather and weather back home, UK weather was described as rainy, cold and freezing which could be a reason to restrict their outdoor activities. UK weather was often blamed for weight gain by Pakistani Muslim women because it caused them to sweat less and restricted their outdoor activities (Ludwig *et al*., 2010). They participants mentioned that carrying out exercise such as walking back home was easier as compared to the UK. However, they acknowledged that there are far more facilities to adopt a healthy lifestyle in the UK such as the gym and leisure centres, compared to their home country.

Across key studies we see how the basic environmental issues included the provision of women only facilities for swimming and gym, cost issues and cold weather (Penn *et al.,* 2014). In this study, first generation participants particularly mentioned dark and cold weather as

major barriers to outdoor physical activities and stated that they preferred to stay home. Fears were expressed related to personal safety when going outside for a walk, an issue noted in other research (see Grace *et al.* 2008), those concerns were mostly mentioned by female participants. Darr *et al.* (2007) identified a number of barriers to walking outdoors including variable weather conditions, cold weather and physical symptoms such as breathlessness, swollen feet, dizziness and tiredness among South Asian and European participants diagnosed with CHD. This supports the current study findings to some extent as those barriers were frequently reported, mostly by first generation participants. This might be suggestive of a lack of information around the relationship between physical activity and certain physical symptoms that could influence participants' ability to lead a healthier lifestyle.

Another common barrier mentioned by the first generation participants was that either the gyms were too far from home and they might need a lift to get there, or the timings of the women-only sessions were not manageable due to their domestic responsibilities. The second generation participants however did not mention fears such as safety or darkness as a barrier to carry out their physical activity. The common barrier towards physical activity between both generations was lack of time and/or a busy routine in terms of structural factors.

5.8: Facilitators of a healthy lifestyle

5.8.1 Health education and awareness

Knowledge and information appeared to be a key motivation towards changing behaviour, participants argued that an increased level of more specific health awareness and information about preventive actions could enhance their chances to engage in healthy behavior, as noted in related studies (see Grace *et al.* 2008).

Increased knowledge and information about a healthy lifestyle appeared to be an influencing factor among participants of the study. The exigency of appropriate education was highlighted in a previous study which found that many South Asian patients were willing to change their diet however it was not accepted by all (Farooqi *et al.,* 2000). Second generation participants in the study appeared to be more aware and knowledgeable of healthy eating

and willing to bring changes to their lives. They communicated the importance of leading a healthy life and the consequences of unhealthy practices. Some participants argued that well informed family members were a source of improving health knowledge and were motivational towards making healthy lifestyle changes.

Mostly, younger participants stated that close family member's health conditions urged them to seek more knowledge and awareness about a healthy lifestyle. Greater awareness seemed to be a significant motivational element for them to switch away from un-healthy practices and bring changes to their lifestyle. This seems to be in line with a previous study that aimed to explore dietary intake and factors influencing eating behavior among obese South Asian men, which found participants' understanding of lifestyle related diseases and its risk factors were significantly shaped by the experiences of close family members who had that particular health condition (Emadian *et al.,* 2017). The understanding also appeared to be a motivator to link the disease to lifestyle factors and acted as an important driver to bring healthy change. Farooqi *et al.* (2000) highlighted the issue of diversity of attitudes and practices among the South Asian group, it manifests the significance of knowledge and understanding to inform socioeconomic and cultural heterogeneity within a cultural group (Bhatnagar, Shaw and Foster, 2015; Senior and Bhopal) to avoid the subsequent danger of stereotyping, that is, assuming people from a particular ethnic group have similar attitudes and beliefs (Farooqi *et al.,* 2000).

Gilbret and Khokhar (2008) noted that escalated risk factors for degenerative diseases include an increased consumption of less healthy foods, lack of exercise and stress associated with migration and settlement. It reflects the belief that social determinants of health do not allow individuals to take the necessary measures to avoid those forces that put them at risk.

5.8.2 Intrinsic motivation

Participants in the current study emphasised the importance of personal responsibility and will-power to bring about change in dietary behaviors. Many respondents suggested that healthy modifications were often challenged by social events and guest arrivals. Traditional food is obligatory on these occasions, and in terms of personal control over sensible food

choices they proposed to reduce the amount of unhealthy ingredients in food preparation to keep the detrimental effects to a minimum. They communicated that no other factor was stronger than a person's own will power and intrinsic motivation. This is consistent with Emadian *et al's.* (2017) study findings whereby intrinsic motivation was a symbolic factor influencing dietary change. However, in other studies participants cited 'God' and 'fate' as factors influencing the development of their health condition and accepted a limited amount of personal responsibility (Darr *et al*. 2008: Lawton *et al.* 2006; Darr *et al*., 2008). The existence of 'fatalism' to some extent in the current study is suggestive of externalizing responsibility for health. The risk factors previously identified by the participants for heart disease also identified little or no scope for control such as heredity, psychological predisposition and stress related to family or work (Smith *et al.* 1999).

Weight gain and a desire to be heathy were significant motivational elements for adapting physical activity (Patel *et al,.* 2016). A desire to be healthy and concerns about weight gain appeared to be motivational factors to bring dietary changes among South Asian participants, which is consistent with the findings of a review that found that weight gain might compromise family responsibilities, hence it was a significant concern among South Asians and acted as a facilitator to change lifestyle (Ludwig *et al*. 2010).

Religion was seen as a motivator in this study rather than a barrier, for example Muslim participants in particular mentioned the teachings of Islam that can lead towards healthy life practices and the practice of prayer five times a day is itself an exercise. It seems contradictory to the findings of a review (Patel *et al.* 2016) that explained that religious practices of the Muslim community such as times of prayer and the fasting month of Ramadan can be a constraint to regular physical activity. Similarly Farooqi *et al.* (2000) found that the religion is a major barrier to physical activity behaviour in South Asians. Whereas this view point was mentioned by only one young participant who said that his exercise routine is broken due to Ramadan as it becomes hard to perform exercise whilst fasting in this particular month of the year among South Asian Muslims (Horne *et al.* 2013). The norms and expectations of religion present many opportunities to control lifestyle diseases. Fatalism was rejected by Muslim scholars, which indicates elimination of the misinterpretation of Islam (rejection of self-care and relying upon Allah protecting health). Similarly, the teachings of Islam were viewed as a

facilitator for a healthy lifestyle suggested by many participants, as Islamic teachings favour and promote healthy and moderate eating, physical activity (praying five times daily is one example) and discourages excessive behaviour.

South Asians are not a homogenous group and hence Indians, Pakistanis and Bangladeshis cannot be assumed to be the same (Kassam-Khamis *et* al, 2000) or express similar views and perceptions about healthy lifestyles. Diversity within the SA group is not limited to religious beliefs and intra-faith food restrictions but it is also reflected in language, lifestyle, health, and health beliefs (Ivey, Khatta and Vedanathan, 2002). Hence, health recommendations and interventions should not be a one-size-fits-all approach. In this study, mixed gender exercising were seen as inappropriate, and modesty challenges were mentioned by the Muslim participants (especially women). Similarly, privacy and security issues were also highlighted by Muslim women who mentioned that running outside or swimming does not meet with their religious obligations. However, such concerns were not mentioned by Hindu or Sikh participants, similarly security, and religious related concerns were not reported among white British participants in a previous study (Horne *et al,* 2013).

A number of the similar barriers and facilitators identified in this study were also found in previous studies across different study designs and ethnic groups. This study supported Morrow *et al*'s (2016) findings that lack of will power, and the lack of taste in health foods were identified as barriers to healthy eating. Similarly, barriers to physical activity such as lack of motivation (Robins, Pender and Kazanis, 2003; Horne *et al,* 2013); lack of time, financial cost and challenges regarding physical environment were also reported in previous studies (Cason-Wilkerson *et al,* 2015; Dagkas and Stathi, 2007). Factors such as family support, socializing with friends and peer pressure both appeared to have positive and negative influence on physical activity uptake among young British girls (O'Dea, 2003); Colman, Cox and Roker, 2007), the findings reported in this study also affirms positive influence of socializing with friends. However, the current study does not show negative influence of peer pressure. Another study found misunderstanding about frequency, duration and intensity as barriers to physical activity among White British participants (Horne *et al*, 2013), those are not dissimilar to the beliefs of first generation SA in this study.

The findings of this study highlighted positive attitude towards healthy lifestyle change seemed to be present among younger participants. In contrast, a study on Irish adults found, interest in health behaviour change was shown to increase with age. The reasons for this attitude included avoidance of disease, and death of family member (Olsen, 2003). This could be supported by the findings from this study that found learnt lessons from the first generations' health problems were motivational factors for health behavioural change among second generation participants. However, similar to the findings of current study, a previous study reported lack of formal and informal (social) support deterred from engaging and maintaining activity levels among older white British participants (Horne *et al*, 2013).

In a previous Australian study looking for gender and age factors on health behaviour (Deeks *et al*, 2009) found participants feared ill health more than financial problems. However, health and lifestyle did not appear to be a top priority among participants of the current study. Deeks *et al* (2009), also found that health behaviour is associated with both gender and age and described that younger participants are less likely to engage in preventative health care. Since it is estimated that 90% of heart disease is preventable by instituting effective preventative lifestyle changes, it is particularly important that any intervention should incorporate health beliefs. In the current study, different age groups identified different factors affecting their health related behaviours. For example, the younger age group both from 1st and 2nd generation saw social support as important to improve physical well-being. However, younger participants from first generation nominated more socio-economic factors as barriers to adopting a healthy lifestyle such as financial issues and issues related to migration. Younger participants from both generations had high motivation towards healthy lifestyle and showed preparedness to avoid ill health, whereas older participants showed acceptance of health behaviour change followed by the onset of a health issue.

Others have also found there were no fundamental cultural and religious barriers to prohibit physical activity among South Asians (Rai and Finch, 1997). Carroll *et al.* (2002) noted that religion was not considered a barrier, with Muslim South Asian participants reporting that the concepts of exercise and well-being were ingrained in Islam as the five times daily Muslim faith rituals (Namaz) involving kneeling and prostrating. Modesty in terms of dressing is

however an obligation for Muslim women, whereby they must cover their body and not show it off to men, which might hinder Muslim women from participating in physical activity in public. This belief can influence and restrict women's participation in mixed gender activities. The current study also supports the perspective of religion not restricting exercise or any kind of physical activity. However, others have noted that South Asian women appear to be culturally and religiously influenced by the expected approval of their parents and religious leaders that consequently affects behaviour patterns resulting in reduced participation in physical activities. It can be argued from the current findings that religion was not mentioned as a barrier, it came under discussion by few participants rather as a facilitator to healthy living. Cultural restrictions and concerns were rather frequently mentioned such as safety and modesty. Modesty, obligation of an appropriate dress code and lack of women-only exercise facilities might act as a barrier to participating in active life for Muslim women.

5.8.3 Socialising

Participants reported that social interaction and enjoyment were key motivators for taking part in physical activity. Taking part in physical activity was preferred with one or more friends rather than going alone (Jepson *et al.* 2012). First generation older participants did not appear to be very keen on going to the gym but the younger generation talked about sport and the gym in relation to adopting physical activity. However, going to gym was considered boring and participants expressed their views about gym workouts as repetitive with less variety than outdoor exercise, which causes demotivation. Walking or exercise can be challenging sometimes, an element of boredom was quite apparent from the young participants in particular and an appeal for outdoor physical activity was evident. Participants stated that several elements such as losing interest and discouragement could potentially bring their morale down if carrying out physical activity on their own. This is consistent with a previous study exploring barriers to physical activity among South Asians (Horne *et al.* 2013) which found that older adults highlighted the importance of social support as a facilitator to increase their physical activity and lack of formal (professional) and informal (peer) social support impedes participants from engaging with physical activity, and maintaining physical activity levels. Support from peers, family, and friends was considered essential in starting and maintaining an active lifestyle.

In the current study, social support appeared to be a motivator, with a number of participants indicating that walking or doing exercise with friends is fun and it is a way to keep themselves motivated because of their friend's enjoyable company. Cross-Bardell (2015) advocated the use of a social approach to enhance engagement, motivation and behaviour change through peer support. The current study supports these findings suggesting the importance of sociability, interaction and feeling part of a social group. Running and walking in the countryside was mentioned less frequently, one young participant mentioned that he preferred running in the countryside as it was a great fun, whereas a gym work out was associated with a 'lock up' feeling.

Enjoyment of exercise appeared to be a key motivator for both generations when it included a social element. Sporting sessions were seen as a great opportunity to catch up with friends which makes physical activity more fun, and this is congruent with Jepson *et al's.* (2012) study that also found a relationship between enjoyment and exercise. Furthermore, the current study found entering into a competition while doing exercise with friends appeared to be another significant motivator for exercise. In this way, they can increase their motivation by encouraging each other while engaging in exercise or team sports.

Team sports were more popular among young South Asian participants than any other form of physical activity. Team sports such as cricket and badminton were mentioned as it offers the opportunity for social interaction. Male participants showed a great interest in sports sessions as it gave them an opportunity to meet friends or 'workout mates' to make exercise more interesting and enjoyable. Jepson *et al.* (2012), mentioned team sports and walking groups were points of interest for South Asian participants, particularly men, in terms of taking part in physical activity simply because sit provide a chance for social interaction. Women were mostly engaged in (or wished to engage in) walking groups or swimming, in particular South Asian women thought that walking and indoor exercise equipment were something that could be incorporated into their busy lives. This is in line with findings in the current study that men appeared to be more engaged in sports whilst women mentioned having less opportunities to take part in sports with imbalanced domestic responsibilities being one of the major reasons cited for why men had more time. First generation

participants also mentioned cultural restraints as a barrier to engage in sports, whilst walking felt more feasible and could easily fit into their busy routine. This is congruent with a previous study (Carroll *et al.,* 2002) that found South Asian respondents were keen on the idea of being supported to increase their walking. Female participants viewed company whilst walking as crucial from a cultural perspective and due to safety concerns. This supports the findings of previous research that found that wider levels of family and community engagement in relation to physical activity can alleviate the modesty, cultural code of conduct and safety concerns expressed by South Asian women (Carroll *et al.,* 2002). It can be argued that not having a 'workout mate' could be a potential obstacle for active life especially for women in South Asian culture.

5.8.4 Gaining Health

Gaining health benefits appeared to be another motivational factor indicated by many study participants, they revealed that looking good and feeling better with the consumption of healthy food served as a source of encouragement for them and motivated them to engage in healthy activities. They articulated the health benefits associated with physical activity and weight loss. Weight gain was associated with being less attractive and a cause of lower confidence. Appearance seemed to be another motivator to be physically active, one female participant communicated lack of confidence due to being overweight that affected her academic performance as she did not achieve good grades. Participant's views could be suggestive of healthy practices such as being active and losing weight having a positive effect on their general physical and mental health, and well-being.

5.9: Bringing About Change

5.9.1 Fear of disease

Development of fear of disease was often mentioned by the participants of the study, which sometimes became a driving force to bring beneficial lifestyle changes. It was particularly stated by the second generation participants who mentioned risk of disease and concern for parents or relatives who were already living with lifestyle diseases. Similar to Penn *et al's.*

(2014) findings, participants often mentioned that they did not want to face the experiences of their parents or other family members. Those who had a family history of diabetes and those whose close family members had heart issues, became more concerned and eager to gain more knowledge and information about the disease, its cure and any precautions. 'Worry' about getting a disease was frequently mentioned by the younger participants which kept them cautious about their eating, similarly fear of gaining weight and getting obese was mentioned in the context of its connection with diabetes. This indicates participants' knowledge about the association of obesity with lifestyle diseases. It also serves as a motivational factor to bring healthy lifestyle changes.

The younger generation appeared to be alarmed by the health conditions running in their family history such as high cholesterol and diabetes. They expressed their concerns over those family related unavoidable factors and laid their emphasis to take appropriate measures to avoid the consequences. Similarly, already established health conditions of close family members appeared to be influential factors for the younger generation, for example a young participant shared her uncle's health issues related to obesity. She emphasised she would rather take appropriate measures towards being healthy now than struggle later on in life, she showed determination to make efforts towards this journey to avoid the health implications in the future.

Participants also mentioned their desire to change their dietary habits to set an example for the next generation for them to avoid the experience of lifestyle diseases. It is potentially especially important for South Asian women to improve their knowledge and awareness to accomplish their responsibilities of their perceived role in providing healthy food for their families and to encourage and promote a healthy lifestyle in their children (Penn *et al.* 2014). A notable theme appeared in the study that represented a belief that change in lifestyle did not appear to be necessary until a health issue was experienced. An urge to make changes towards a healthy lifestyle appeared to be challenged by the idea "we will cross the bridge when we get there", this phenomenon appeared to be quite apparent when participants talked about the potential reasons for unhealthy practices, and barriers to adopting a healthy lifestyle. Health did not appear to be considered a priority, although a few younger participants reported that health was an important aspect of their lives. They explained that

whilst people sometimes do not consider it important immediately, it could be relevant in the future when health issues arise. They also expressed worry and fear of having health conditions in the future, which was a source of encouragement to bring about a change in their lifestyles.

5.9.2 Health issues as the cause of change

Food choice decisions are dynamic and modified due to significant life events such as migration and changing health through the diagnosis of an illness which might lead to radical reconstructions of food choices from unhealthy to healthy diets and vice versa (Falk, Bisogni and Sobal, 2000). A number of responses in this study suggested that many South Asian participants were not inclined to change their lifestyle until they encountered a serious health condition. They shared the belief that lifestyle related changes were not necessary in the absence of a health problem. Many first generation participants stated that they adopted dietary changes after diagnosis of high blood pressure, diabetes or CHD. The participants held a view that they were forced to bring those changes in their lives to tackle their health issue. They acknowledged gaining all the relevant information about the disease and its prevention from health professional's abstention advice. This demonstrates a need for health related knowledge and awareness among UK South Asians. A number of participants reported that the health issues of their family members encouraged them to make dietary changes, but confessed to have never considered changing their lifestyle before. A careless attitude towards engaging in a healthy lifestyle was exhibited with the turning point seeming to be signs of serious health problems such as high blood pressure, heart problems and diabetes.
Health issues appeared to be a significant factor that might influence eating behavior. This echoes the behaviour of South Asian CHD patients in a previous study exploring causal attributions, lifestyle change and illness beliefs, which found patients consumed less fat and reduced fried food intake after being diagnosed (Darr *et al.,* 2007).

A number of responses manifested the belief that 'health conditions or health issues can drag you towards the adoption of a healthy lifestyle'. Food modifications were implemented, such as replacing fried food with grilled food since being diagnosed with a heart condition. Many responses indicated that healthy changes were made following doctor's advice after

diagnoses of heart disease or diabetes. In the current study, having already developed a serious health condition, or fear of the risk of progression of that disease appeared to be an influencing factor for the first generation's dietary and physical activity behaviour, whilst the second generation participants seemed to be motivated by the experiences of their parents or family members.

Many young participants expressed their apprehensions about developing health conditions that their parents or close family members had been diagnosed with. Younger participants concluded from the observation and experiences in the family that it was common practice within the South Asian community that people do not care much about their health and healthy lifestyle, and they do not start thinking about adopting a healthy lifestyle beforehand, thus they start making changes in their lifestyles when it becomes too late. The attitude of this ethnic group usually leads towards lifestyle diseases such as CHD and diabetes. They revealed that obesity and its related health issues appeared to be a significant motivator to bring a healthy change in their lives. However, some younger participants communicated that in terms of health, tougher measures would only be taken when an indicator of a serious health issue became obvious. Some argued that they felt weak and lazy, which motivated them towards physical activity such as team sports.

5.9.3 Making healthy lifestyle decisions

Food choice decisions are dynamic, they change over the course of time and the decisions vary among generations (Belasco, 2006). Food decisions are usually a result of undergoing personal developments, emergent situations and settings in the course of life (Devine, 2005). This is consistent with a number of responses in the current study that highlighted decisions to alter eating habits were usually made very late especially in first generation participants who did not realise its importance and carried on using the same methods of cooking they used to have back home. This study reported another notable belief that was indicative of 'making healthy decisions late', it was apparent from participants responses that healthy lifestyle related decisions were made very late (usually when a health problem was diagnosed). Few responses from the first generation participants indicated that fear of health conditions getting worse in the future had a significant influence on making healthy decisions,

which is indicative of participant's perceptions of waiting to make healthy lifestyle changes until the onset or fear of disease.

Transitions and turning points in an individual's life are shifts that determine the change in food trajectories (Wethington, 2005). Food choice decisions are usually situational involving not only decisions about food but other aspects such as location, social pressure, time or other competing activities (Bisogni *et al.,* 2007). Situational considerations such as family member's preferences (taste, amount of oil, salt and sugar), social/cultural events, adverse health conditions and other motivational factors (gaining health, appearance, keeping fit) make food decisions a contextualized process (Bisogni *et al.,* 2007).

In the extended family system of South Asian culture, the dietary change must be adopted by the whole family to accommodate one person's health condition. It can become a challenge when an individual wants a change that appears to be unacceptable for the rest. As we saw, many participants in this study reported that they have modified their cooking methods followed by the onset of a health condition of an older family member. This also suggests a strong influence of family expectations in food preparation and consumption (see also Ludwig *et al.*, 2011).

Ritzer (2000) classified social theories to summarise the diverse theoretical perspectives to examine decision making. Social behavior assumes a 'rationalist' perspective that refers to the idea that individuals make decisions with complete information about the features of the change, and that decisions are made to increase benefits and minimize costs (Ritzer, 2000; Glanz *et al.,* 1998). A 'social facts' perspective holds to the belief that social institutions and environmental factors shape individual's decisions. Social norms and values constitute constraints upon potential decisions, a 'structuralist' perspective assumes that macrolevel factors determine individual level decisions. The 'social definition' perspective takes a constructionist stance that focusses on subjective thoughts and experiences taking both individual and collective perspectives about how food choice decisions are constructed (Ritzer, 2000; Bourdieu, 1984).

The first generation appeared to reach a turning point and make a healthy decision to bring a positive change to their health condition, whilst younger participants were more likely to make those health decisions early. Many young participants argued that timely decisions and a timely change in lifestyle could minimise the risks of future health problems. They communicated that taking timely robust measures could reduce the likelihood of future serious health consequences. They also communicated that they did not want to reach the stage of their lives where it would be too late to make healthy lifestyle decisions. An urge to learn more about how to bring a change in their lives in terms of health and wellbeing was demonstrated by the younger participants as a learned lesson from their first generation family members. With regards to this study, it can be argued that food decisions are embedded within personal preferences and are contextual with respect to past cultural experiences (long established eating habits), present situations (onset of disease) and future expectations (gaining health and avoiding the health conditions getting worse), food related decisions can be understood with a careful consideration of past events and current influences (Sobal *et al.,* 2009).

In summary, this thesis has identified barriers and facilitators to a healthy lifestyle that are specific to South Asians indicating that culturally appropriate support is needed to improve the adoption of healthy lifestyles in this group, or to support them to maintain healthy behaviours that they engaged with in their country of origin. However, South Asian people are not a homogenous group and factors such as age, migrant generation, and gender need to be taken into consideration when developing support.

Chapter 6: Conclusion and recommendations

The current study presents a substantive grounded theory of UK South Asians attitudes towards health behavior, and the impact of intergenerational differences has emerged through interpretive renderings, thematic analysis and interactions with the study data. The study presents novel insights into what constitutes health behaviour among two generations of South Asians living in the UK through its delineation of key interpretive processes that South Asian participants draw on to understand health and a healthy lifestyle, and the factors involved in shaping their health behaviour. Constructive sensibilities of grounded theory enabled the researcher to interpret nuances of the meanings and action while becoming increasingly aware of the emerging nature of the study data (Charmaz, 2006). The study findings hold a pragmatic foundation that encourage a researcher to construct an interpretive rendering of the area of study rather than reporting of events and statements externally (Charmaz, 2006).

This section focuses on the outcome of the study and delineates the theoretical accounts of the findings and its future implications. It will also provide findings as a result of the study and how those findings are relevant to the central research aims. It will further focus on how these findings contribute to new knowledge and where the further inquiry might take place. Firstly, the quality of the study is evaluated, secondly the major contribution of the study is presented and lastly recommendations are given in the context of the main findings.

6.1 Criteria for the grounded theory study

Charmaz (2006) states that grounded theory methods have great flexibility and potential. “The quality of the study was discussed using the specific criteria of credibility, originality, resonance and usefulness outlined” by Charmaz (2006, p182). However, “it is the reader who can provide an ultimate judgement of the usefulness of the study” (Charmaz, 2006, p182). Charmaz defined criteria for evaluation of constructionist grounded theory as: “Credibility” to ensure familiarity with the data and that the data collected is sufficient to make a theoretical claim grounded in data; “Resonance” to ensure saturation of categories, and checking meanings with participants to ensure that theory grounded in data reflects lived

experiences; “Originality” to produce new insights; and “Usefulness” to contribute to further knowledge and form a new world.

6.1.1 Credibility

According to Charmaz (2006) the credibility of a study is established by sufficient familiarity with the data collected, it provides rationale to the insights of the participants experiences, course of actions or beliefs. To ensure the achievement of a transparent account of theoretical rendering, it is important to make the participant’s view-point explicit with the researcher’s presence maintained throughout comparative analysis. This thesis has explored the impact of inter-generational differences on health behaviour among UK South Asians utilizing a sample of 27 participants from ranging from 19 to 85 years old. A transparent account of analytical methods used in the study was provided in the methodology chapter to maintain credibility of the study. A detailed demographic list of the participants was provided in Chapter 3 under sampling section (see Table 1, Chapter four, page 84-85) that provided a context to the South Asian participant’s perspectives with regard to their age group and their basic nationalities.

References have been made to indicate where the data have been lifted from to establish that the findings are firmly grounded in the data. The process of audio recordings, the careful listening of audio recordings and the reading and re-reading of interview transcripts warranted confidence in its overall credibility. The major purpose of establishing credibility is so that the reader is able to independently assess the claims made and agree with those. To achieve this purpose detailed and sufficient evidence was provided in the form of excerpts from the interviews (Charmaz, 2006). Credibility was further enhanced when saturation of concepts and the theoretical categories were achieved. Following the constructionist grounded theory method ensured that the findings of the study were grounded in the data (Morrow, 2007”). Analysis was linked back to the excerpts of the interviews to ensure that those observations remained grounded in the participants experiences and beliefs. Reflexivity enabled the reduction of bias and ensured transparency (Finlay, 2002). In line with the constructionist grounded theory approach, it is acknowledged that the findings are a

result of mediation between the data and the researchers own interpretation and understandings.

6.1.2 Resonance

Resonance refers to the fullness of the studied experiences and how it is demonstrated in the research. It also describes the researcher's actions to convey the lived experiences of those within the phenomenon whilst delineating those social processes attributable to those actions (Charmaz, 2006). Data collection and analysis occurred concurrently until no new insights were gained, which was an indication of theoretical sufficiency (Dey, 1999). The categories developed in the analysis represented the health beliefs and attitudes reported by the South Asian participants as leading to their health behaviour. Links have been made between the health beliefs of the participants and the wider literature relating to South Asian migrants across the UK. In the current chapter the differences in health beliefs among two generations of UK South Asians have been considered in terms of their impact on health behavior, which was identified as a gap in the literature (Chapter 3), and the main aim of the study. Explicating the difference in health beliefs between the first and second generations of UK South Asians was essential to gain their narratives, which have the potential to provide new insights for health promotion programmes. Understanding health perspectives of South Asians has a potential to inform the development of approaches that can help mitigate ethnic health disparities. The theory under construction was discussed with four participants who acknowledged that the interpretation reflected their responses.

6.1.3 Originality

Grounded theory is valued due to its potential to produce analytical insights within a substantive area, hence those unprecedented ideas could be considerable for further research and practice (Charmaz, 2006). There is a scarcity of qualitative literature focusing on the health attitudes and beliefs of ethnic minority groups in the UK to provide cultural sensitivity for the improvement of health promotion programmes. Considering the paucity of the evidence in this area, it can be argued that the study findings are particularly important.

The current study adds to the emerging body of work in this area and provides a novel focus on the health perceptions of two generations of South Asians in the UK and its impact on their health behaviour. Other studies have explored South Asians health perspectives within certain age groups, whereas this study interprets inter-generational health attitudes and their impact on health behaviour. These concepts developed in the work offer new insights and a deeper understanding of the health beliefs and practices of South Asians from their perspectives. The study also offers support to already existing literature and adds more to enhance the credibility of already established concepts.

6.1.4 Usefulness

Usefulness of the study relates to the extent that the findings of the research can be used in the everyday world. Charmaz (2014) outlines usefulness as "*When born from reasoned reflections and principled convictions, a grounded theory that conceptualizes and conveys what is meaningful about a substantive area can make a value able contribution*" (Charmaz, 2014, p338). The usefulness of the study relates in particular to the extent to which the theoretical renderings of the study trigger further inquiry. The findings of the study offer new insights and contribute to further knowledge that may have implications for theory development for future research and also the development of health programmes. The increased understanding of health-related perspectives of South Asian groups have the possibility of influencing the health service provision to this community. The analysis of the impact of generational differences on health behaviour among South Asian participants provided suggestions and recommendations for developing health programmes designed for this particular ethnic group. Understanding individual and socio-cultural factors associated with health behaviour change in UK South Asians could be useful for health professionals to improve the way they engage with South Asian groups to promote healthy behaviours.

6.2: Recommendations

The findings from this thesis suggest the need for culturally sensitive health education programmes tailored according to the needs, preferences and attitudes of the South Asian ethnic minority group, which should include dietary education and detailed programmes of

physical activity. Dietary habits are a manifestation of cultural symbolism, thus a potential dietary education intervention should consider ways of retaining culinary traditionalism, such as the substitution of ingredients in traditional recipes which can preserve the long held culinary traditionalism as well as increase health benefits. A physical activity programme for South Asian ethnic groups should be age and gender specific and able to address the cultural and religious issues. For example, to reduce the nervousness of women, disapproval of going to gyms and to address the time limitations, women only spaces dedicated to the cultural and religious needs of the South Asian community should be widely available. Moreover, an informational approach is needed to motivate the younger generation such as physical activity messages targeting community sites (mosques, community centres, leisure centres) to increase their activity levels such as active transport practices. Team sports and walking groups should be introduced and recommended in leisure/community centres with flexible timings. To accommodate lack of time and commitment due to domestic responsibilities being a barrier for South Asian women, the women only gym opening hours should be flexible rather than set timings.

6.3 Strengths and Limitations

The study was initially set in a single location 'Khidmat-e-Khalq' to recruit first generation participants, which may affect generalisability. However, "generalisability is not a concern in qualitative research as it provides important insights and knowledge rather than a single interpretive truth" (Denzin and Lincoln, 2005, p7-8). This study provides valuable insights and knowledge of UK South Asians for those who are involved in the provision of health programmes and policy making for this particular ethnic group to reflect on, appraise and challenge their experiences and practices. In giving voice to a marginalised group, that is South Asian ethnic minorities, changes in health promotion programmes can be informed through an increased understanding of their health perspectives (Creswell, 2009, p9). To reduce participant burden some of the interviews were conducted over the phone, which may have reduced the ability to gain additional in-depth information and develop a meaningful interaction between researcher and interviewee. Because the interviewer can miss the social cues and body language that cannot be used as a source of extra information (Opdenakker, 2006).

Due to limited resources, all interviews in 'Urdu' or 'Punjabi' language were translated and transcribed by the researcher, I think it is a strength of the study as (Temple and Young, 2004) stated, a researcher's language fluency, of the community he/she is working with, provides more opportunities in terms of research methods unlike other researchers in cross language research, and it also offers a check to the validity of interpretations.

During the interviews, a high level of facilitation was provided to the participants and tailored according to the linguistic requirements of the participants. This was essential to enhance the level of their confidence and to overcome the communication issues such as being not very good at speaking English or Urdu/Hindi (the National language of Pakistan and India), among participants; hence interviews were mainly conducted in Punjabi language which is native language in both India and Pakistan. The subjectivity of the researcher is not dismissed but acknowledged in this study through reflexivity that makes the position more transparent and explicit.

6.4 Conclusion

The study revealed that age and generation are influential factors determining the extent to which diets are changed and physical activity is taken up. Knowledge and awareness of health, and the importance of a healthy diet and physical activity for a healthy life was required. Older participants believed that lack of knowledge and information was a significant barrier towards adopting a healthy lifestyle. The second generation claimed to be more informed and knowledgeable about healthy lifestyles and appeared to be more willing to bring about change compared to the first generation.

A change in lifestyle behaviour appeared to be more acceptable in terms of diet and physical activity, although a range of intrinsic and extrinsic barriers were indicated. With regard to the perception of healthy lifestyle, it can be argued that the participants of this study expressed the belief of having a good knowledge about a healthy life, although the integration of this knowledge into their daily practices appeared to be challenging. Second generation participants appeared to be more motivated towards healthy lifestyle changes, whilst the first

generation participants tended to bring about change when it was necessary due to ill health. In terms of practices and healthy lifestyle experiences it can be suggested that dietary change faces challenges as it is not widely accepted by all, although some changes have been made. Young South Asian participants' inclination towards other cuisines does not seem to be affecting regular consumption of traditional food, hence it can be argued that eating habits could be a reflection of parental behaviours (Birch,1998).

Despite a good knowledge of the health benefits of physical activity, older South Asian participants did not appear to be active due to weather conditions, health conditions, advanced age, lack of time, lack of motivation and apprehension of any disease getting worse. Physical activity was given low preference in day-to-day life consequently reducing the chances to engage in leisure activities and less active spare time. Physical activity appeared to be the least important among first generation participants due to household responsibilities and child care. Gender specific responsibilities in South Asian culture hinder the participation in physical activities, safety appeared to be a concern for older women. However, younger participants did not note security risks associated with going out for any kind of physical activity. Online activities and lack of time were consistent barriers indicated by young participants. A nervousness was shown for going to the gym due to cultural inappropriateness and inaccessibility involving cost and inconvenient opening hours. Young participants had inconsistent/irregular patterns of physical activity. Walking and peer supported exercise was more acceptable and socially approved, socializing appeared to be a significant motivational factor for participating in physical activities. Healthy dietary changes and the uptake of physical activity appeared to be measures taken to counter a disease or health issue rather than adopting it as a lifestyle practice.

Absence of disease appeared to be an indication of 'health'. "A person with no health issues does not need to change their lifestyle" appeared to be an influential factor determining lifestyle practices among first generation participants. Societal and cultural norms, economic factors, and inequality in gender roles act as barriers restricting the chances of starting physical activities. Low level importance given to healthy lifestyle changes was a cross cutting theme throughout the thematic analysis, a belief that appeared to be influential in determining health behavior.

Serious chronic health issues and fear of risk or progression of disease can have an influential impact on lifestyle behavior change among first generation older participants, whereas the younger participants were inclined to bring about change due to not wanting to face the health related challenges that their parents or other family members had experienced. The first generation, older participants were less keen to change their lifestyle before the onset of a health condition. Younger participants of both generations are inclined to bring timely changes in their behaviour as a result of the lesson learnt from their older family members. However, first generation younger participants' efforts towards regular and consistent engagement with healthy practices are often crippled by factors related to socio-economic financial and migration status.

At this stage, further research is needed to relate the findings to a broader picture of health beliefs. This study has uncovered some important issues such as South Asians making healthy decisions upon onset of disease and younger participants showing they are keen to adopt a healthy lifestyle before then. To generalise to a wider population, this could be scaled up to a survey to see if those findings represent a wider picture. The health belief concept of 'a person having no disease' not needing to adopt a healthy lifestyle should also be followed up by a survey to achieve a wider perspective of this group. More research needs to be carried out to strengthen the findings of this study so as to help in the development of targeted interventions and culturally appropriate and sensitive health promotion programmes for this particular group to work on the barriers to uptake of healthy lifestyles.

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Appendix A: Consent Form

Department of health and Sciences

A critical analysis of the impact of inter-generational differences on the attitudes towards lifestyle behavioural change among South Asian migrant population in the UK

Consent form for research study

Please initial each box

1	I confirm that I have read and understand the information sheet for the above study	☐
2	I understand that my participation is voluntary and that I am free to withdraw within two weeks' time without giving any reason.	☐
3	I understand that I have the right to decline to answer any question if I feel uncomfortable in any way during the interview session.	☐
4	I am willing for the interviews to be audio-recorded	☐
5	I understand that anonymised quotes from the interviews may be used in publications and conference presentations	☐

Name of participant Date Signature

Name of researcher Date Signature

Appendix B: Information Sheet

Attitudes towards health and lifestyle among different generations of South Asians in the UK

بین نسل برطانیہ میں جنوبی ایشیائی تارکین وطن آبادی میں طرز زندگی کے رویے میں تبدیلی کی طرف رویوں پر اختلافات کے اثرات کا ایک اہم تجزیہ

What are we studying

We are trying to understand more about the different ways that people think about health behaviours such as exercise and eating healthy food. We are particularly interested in the opinions of people of different ages in South Asian migrant groups. We would like to find out whether South Asian cultural beliefs change how people think about their health. We would also like to find out how likely you might be to make changes to your lifestyle to become healthier.

مطالعہ کا مقصد

ہم لوگوں جیسے ورزش اور صحت مند خوراک کھانے سے صحت مندانہ رویوں کے بارے میں سوچنے سے مختلف طریقوں کے بارے میں مزید سمجھنے کی کوشش کر رہے ہیں. ہم جنوبی ایشیا کے تارکین وطن گروپوں میں مختلف عمر کے لوگوں کی رائے میں خاص طور پر دلچسپی رکھتے ہیں. ہم جنوبی ایشیا کے ثقافتی عقائد کے لوگوں کو ان کی صحت کے بارے میں سوچنے کے لئے کس طرح تبدیل یا بابر تلاش کرنے کے لئے چاہوں گا. ہم نے بھی آپ کو آپ کے طرز زندگی میں تبدیلیاں صحت مند بننے کے لئے بنانے کے لئے ہو سکتا ہے کہ کس طرح کا امکان بابر تلاش کرنے کے لئے چاہوں گا.

Why have I been chosen?

میں کیوں منتخب کیا گیا ہے؟

You have been invited to take part because you are a South Asian migrant and represent first generation who migrated from the South Asian region to the UK.

آپ کو حصہ لینے کے لئے مدعو کیا گیا ہے کیونکہ آپ جنوبی ایشیائی تارکین وطن ہیں اور وہ لوگ جو برطانیہ میں جنوبی ایشیا کے علاقے سے ہجرت پہلی نسل کی نمائندگی کرتے ہیں.

What will I be asked to do if I take part?

اگر میں حصہ لیں تو ایسا کرنے کو کہا جائے گا؟

You will be asked to take part in a one-to-one discussion with the researcher to talk about your views on a healthy lifestyle. In the discussion you will be asked questions which will enable you to discuss your knowledge and perception of healthy lifestyle. It will give you the opportunity to express your views about any cultural or religious issues in relation to adopting healthy lifestyle.

Interviews will be held by Faiza Gul (Research student at University of West of England). You can talk as much or as little as you like depending on your personal views or experiences. The interview will last 40-60 minutes depending on discussion.
I will tape record the discussion and write notes up and then analyse it.

آپ کو ایک صحت مند طرز زندگی پر اپنے خیالات کے بارے میں بات کرنے کے محقق کے ساتھ ایک ایک سے ایک بحث میں حصہ لینے کے لئے کہا جائے گا. انٹرویوز میں آپ کے سوالات جو آپ کو آپ کے علم اور صحت مند طرز زندگی کے تصور پر بات چیت کرنے کے قابل بنائے گی کہا جائے گا. یہ آپ کو صحت مند طرز زندگی اپنانے کے سلسلے میں کسی بھی ثقافتی یا مذہبی مسائل کے بارے میں اپنے خیالات کا اظہار کرنے کا موقع دے گا.
انٹرویوز فائزہ گل (انگلینڈ کے مغرب کی یونیورسٹی میں تحقیق کے طالب علم) کی طرف سے منعقد کی جائے گی. آپ کو آپ کے ذاتی خیالات یا تجربات کی بنیاد پر کی طرح آپ کے طور پر زیادہ یا کم بات کر سکتے ہیں. انٹرویو بحث کی بنیاد پر 40-60 منٹ تک رہے گا.
میں نے ٹیپ بحث کو ریکارڈ اور اپ نوٹ لکھ اور پھر اس کا تجزیہ کرے گا.

Do I have to take part?

میں حصہ لینے کی کیا ضرورت ہے؟

No, taking part is voluntary. It is entirely up to you to decide whether or not to take part in the study. If you decided to take part then I will ask you to sign a consent form and give you a copy to keep. You have the right to withdraw any time and you do not have to give any reason.

نہیں، حصہ لینے رضاکارانہ ہے. اس تحقیق میں حصہ لینے کا فیصلہ یا نہیں کے لئے مکمل طور پر آپ پر منحصر ہے. آپ تو حصہ لینے کا فیصلہ تو آپ کو ایک منظوری فارم پر دستخط کریں اور آپ کو رکھنے کے لئے ایک کاپی دینے کے لئے کہا جائے گا. آپ کسی بھی وقت واپس لینے کا حق حاصل ہے اور آپ کو کسی بھی وجہ سے دینے کی ضرورت نہیں ہے.

What are my responsibilities?

میری ذمہ داریاں کیا ہیں؟

I would be grateful if you would be available for one interview if you decided to take part. You will also be asked to complete a consent form before our interview.
آپ کو حصہ لینے کا فیصلہ کیا ہے تو میں شکر گزار ہوں گے. میں نے آپ کو ڈیٹا جمع کرنے سے پہلے ایک منظوری فارم کو مکمل کرنے کے لئے چاہوں گا.

Will my taking part in this study be kept confidential?

اس تحقیق میں میرا حصہ لینے خفیہ رکھا جائے گا؟

Yes. When the tape is typed up your name will be replaced with a code or pseudonym. No-one will be able to identify you from the typed discussion. My report will include quotations from our interview, but I will not use your name. The tapes will be kept securely for six years and then destroyed in accordance with good practice guidelines.

The analysis of the transcripts will be led by researcher Faiza Gul in the University of the West of England, Bristol.

جی ہاں. ٹیپ ٹائپ کیا جاتا ہے تو آپ کے نام ایک کوڈ یا تخلص کے ساتھ تبدیل کیا جائے گا. نہیں، ایک ٹائپ بحث سے آپ کی شناخت کرنے کے قابل ہو جائے گا. میری رپورٹ ہمارے انٹرویو کے اقتباسات بھی شامل ہوں گے، لیکن میں نے تیرے نام کو استعمال نہیں کرے گا. ٹیپ چھ سال کے لئے محفوظ طریقے سے رکھا اور پھر اچھی پریکٹس ہدایات کے مطابق میں تباہ ہو جائیں گے.

ٹرانسکرپٹس کا تجزیہ انگلینڈ، برسٹل کے مغربی یونیورسٹی میں محقق فائزہ گل کی قیادت میں کیا جائے گا.

What will happen to the result of the research study?

تحقیقی مطالعہ کا نتیجہ کیا ہو گا؟

The results will be reported in professional publications and conferences and the researcher's doctoral thesis. The results will help to keep policy makers informed.

نتائج پیشہ ورانہ مطبوعات اور کانفرنسوں میں اطلاع دی جائے گی. نتائج پالیسی سازوں کو باخبر رکھیں گے.

Appendix C: MEETING THE POTENTIAL PARTICIPANTS

MEETING THE POTENTIAL PARTICIPANTS

Dear Faiza

As promised please see below confirmation of the 2 visits I have booked for you to meet with both the Men's and Women's groups.

Women's Group Monday 23 Jan 2017 11am

Men's Group Wednesday 15 February 2017 12pm (for max. 15 minutes only)

Please arrive at our office, see below, and request for x-y-z who will take you to the group and introduce you.

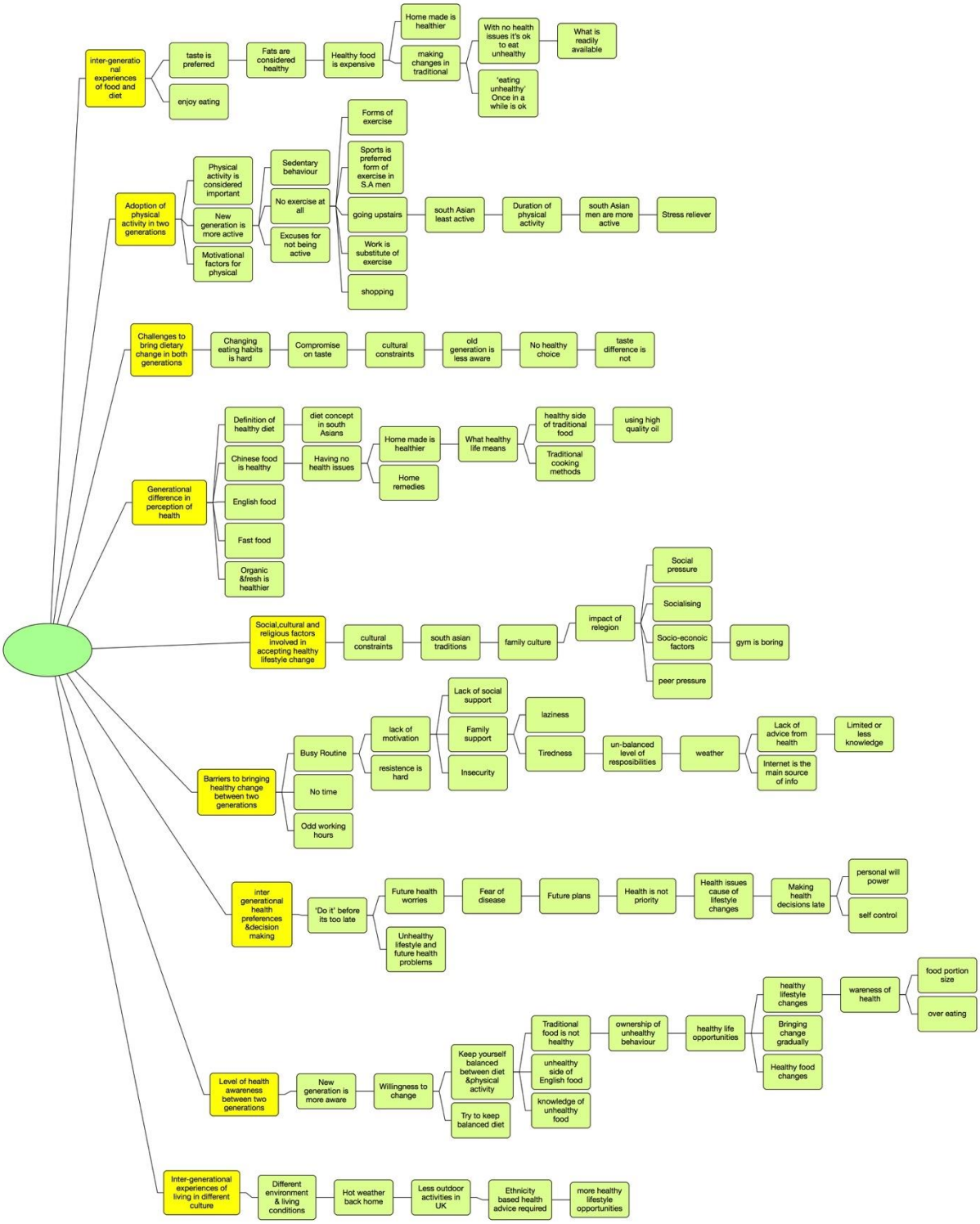
Look forward to seeing you.

Kind regards

X-y-z

Appendix D.

MIND MAPS



Appendix E.

Topic Guide

- How do you interpret general health?
- What do you think about healthy lifestyle?
- Do you believe in healthy lifestyle change?
- What is a healthy diet
- In terms of healthy lifestyle do you think healthy diet is important? How
- Where do you find information about a healthy diet?
- Do you think Asian food Asian food healthy? Why
- Food shopping
- What is like to be in different culture?
- What do you think is good being in a different society?
- What do you think is downside about it?
- How do you think your lifestyle was changed after migration?
- What has been changed in your life since you migrated?
- What do you think about health services you receive?
- What are your thoughts about lifestyle behaviour change interventions?
- How well do you understand health care programmes?
- What do you think is important to include in health care programmes?
- Do you think men and women respond differently towards these interventions?
- What difficulties do you face adopting healthy lifestyle in a different society and culture?
- Do you think culture and religion influence your attitude towards health?(if so how?)
- Do you think socio economic factors are involved in adopting healthy lifestyle?(if so how)?
- Do you make most of the health services provided in the UK? (if not why?)

Appendix F.

Memos

Memo

Per the discussions held with the participants on the subject of health. It was apparent that the participants tend to construct the definitions of health upon their 'good' or 'bad' self experiences and from the experiences of other family members. Positive and adverse health experiences or observations were the key features in the beliefs the participants formed. Personal or close family member's 'good' or 'adverse' health experiences were a source of information for the participants. Rashid clarified this when he explained that his aunts were obese and were having health problems due to them being overweight.

Memo

Mrs Neelofur mentioned that she was not brought up in the UK and migrated due to her marriage. She stated that the way she was brought up in a developing country having no proper information about healthy practices creates a huge difference in health awareness between her and her children. She added that she had no knowledge of healthy eating before as these concepts recently came up. She never thought it before to change the traditional lifestyle because that is how she was brought up and making change was hard. The next generation is more knowledgeable and it would be easier for them to bring about change she added.

Memo

When talking to Mrs Neelofur, I realised that she showed a great approbation for organic food and believed that it was good for her health and for her family. She expressed her knowledge about healthy eating and food with reduced fats and organic food which obviously is a healthy choice due to reduced/no use of chemicals and fertilisers however she mentioned that 'being healthy' could be very 'expensive', especially when you have a big family. 'Healthy choices' would result in increased food budget. To conclude, although she believed organic food options are healthy options, having a big family of five children