A Report into patterns of diet and exercise in the Pakistani Community of Nottingham City

Ian Shaw & Basharat Hussein

University of Nottingham

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Key findings and recommendations

This qualitative investigation considers dietary and exercise patterns of the Pakistani community residing in Nottingham. This is an important area of inquiry as the evidence suggests that these patterns cause higher rates of CHD among the members of community. This section reports the key findings and the ways of influencing the dietary and exercise patterns of the community.

Key Findings

The lifestyle choices of the respondents predominately follow the socio-economic and cultural patterns of their home country. In particular, the following three cultural patterns might have been contributing to the increased prevalence of CHD among this community.

a. ***Consumption***
Culture of consuming fatty and energy dense food

b. Decision-Making
Complexity in joint decision among family members related to lifestyle factors

c. ***Motivation***
Lack of motivation and cultural support for healthy physical activities

The analysis suggests that all three patterns- consumption, decision-making and motivation- not only symbolise the cultural value system of a particular rural region of Pakistan, they also constitute jointly a lifestyle that is damaging to health. The respondents report that it would be challenging to significantly influence this lifestyle within a short period as it is founded on a particular cultural belief system. Nonetheless, the respondents themselves believe that the following social and cultural interventions may help create the foundations of longer term lifestyle change.

Recommendations

- ***Raising Awareness***

  Providing and disseminating information related to unhealthy and healthy dietary and health-related physical activities by using culturally and socially appropriate medium and language

- ***Organising Community***

  Strengthening the network of community organisations and helping them to develop and implement health projects;

- **Sensitising through religion**

  Using religious discourse and involving religious leaders to sensitise members of this community on adopting healthy lifestyle

- **Focusing on whole-family**

  Adopting culturally appropriate ways of involving whole family in working towards sustainable change in lifestyle choices of the family members.

- **Skilling women for healthy cooking**

  Developing culturally appropriate process of stronger engagement with women and helping them to develop skills and knowledge of healthy cooking

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Section -1 Background

Around 1.3 % of the UK population is of Pakistani origin. They mainly originate from rural part of district Mirpur and Kotli of Azad Jamun and Kashmir (AJK) region which is situated in the north of Pakistan. There are people from other region of Pakistan including Punjab , Sindh, KPK and few from Baluchistan as well. They are mainly settled in London, Midlands and North of England areas. In Nottingham, there are around 10,000 Pakistani people which is around 3.6% of Nottingham population(Office for National Statistics, 2004) . This is a culturally and linguistically diverse population group. The main migration flow of people from Pakistan to the UK started early 1960s and it is still continued.

Netto et al. (2007) noted that CHD is higher among Pakistanis in the UK in terms of mortality, and prevalence incidence than the Indigenous population. Also modification of lifestyle is identified as an important intervention for reducing the prevalence of chronic diseases (Kousar et al 2008).

The aim of the research which produced this report was to explore and understand current dietary and exercise pattern and to identify any cultural resistance to change among the Pakistani ethnic group living in Nottingham. It was hoped that this understanding would result in the design and implementation of more culturally relevant health promotion interventions.

Section: 2 A brief outline of the Literature Review

There is evidence to suggest that culturally appropriate diet and lifestyle intervention can be successful in treating risk factors for cardiovascular and type 2 diabetes among migrants from a Pakistani origin (Kousar et al., 2008). The literature emphasises that as women have the prime responsibility for food preparation in the Pakistani cultural, change here can bring about better outcomes for the entire family. However, this is not straightforward as traditionally the family heads are male and making changes in the way food is prepared without their involvement may not be sustainable.

A study conducted among South Asian immigrants in USA found that the respondents used a biomedical model for explaining coronary heart diseases but also that their explanatory model included psychosocial and spiritual risk factors (Tirodkar et al., 2010).This research argued that understanding the explanatory frameworks of the patient are an important precursor to successful health promotion efforts.

A study conducted among South Asian including Pakistani-Muslims living in the UK found that the respondents attributed the cause of their coronary heart disease to their diet pattern (Stefler et al., 2012). However, there were also a significant number of respondents who also attributed their cause of coronary diseases with their religious beliefs and it was thought that God and not the individual is responsible for their health. This study also found that making dietary changes was difficult among South Asian respondents. Similar results are found by Netto et al (2012). They argued that in order to make persistent lifestyle changes, the fundamental changes that address the cultural, social, historical, environmental and psychological forces that influence health behaviour first need to be addressed. Similarly Mellin-Olsen (2005) suggested that dietary advice alone may not be successful. Rather the strategy should also focus on a variety of factors causing dietary change among immigrants. These factors include health beliefs, child preferences, work schedules, social relations, stress, traditional beliefs, climate, season and access of foods. Research has found the prevalence of resistance to slimness arising from South Asian's health beliefs and perceptions of beauty (Bush et al., 2001)

Bush et al (1998) found that traditional family hospitality also plays an important role in the life of South Asian. They argued that in the context of the UK, where energy dense food is available, this may result in high energy intake and increased coronary risk. The previous literature has also identified that there is lack of understanding about heart diseases and diabetes among South Asian population (Gany et al., 2012).

These are the key studies that informed this study.

Section: 3 Methodology

The current study started in mid-December 2011 with the designing of data collection tools and making initial contact with Nottingham's Pakistani community. The data was collected in three stages.

1. Individual semi-structure interviews with community leaders
2. Separate focus group discussions with male and female community members
3. Individual semi-structure interviews with male and female community members

The data was collected by Mr.Basharat Hussain who has MA Sociology, MA Research Methods and currently 2nd year PhD Health Studies Student at the University of Nottingham. Mr. Basharat Hussain is of Pakistani origins, is fluent in Punjabi, Mirpuri, Urdu and English. He has done community development work in Pakistan and voluntary work with a BME organisation in the UK, and has undertaken previous lifestyle research in the Pakistani community. He was therefore familiar with the cultural sensitivity required to undertake the research. Regular meetings were held with Professor Ian Shaw to explore the themes emerging from the data, which helped to develop subsequent interviews in a process of analytic induction (Robinson 1951; Shaw 2000).

The project obtained ethical clearance from the University of Nottingham and conformed fully to the guidance for ethical practice of the British Sociological Society (http://www.britsoc.co.uk/media/27107/StatementofEthicalPractice.pdf) Written informed consent was taken from each respondent prior to the start of the individual and group interviews. Each participant was shared a study information sheet (written in the languages used by the community). Separate sheets were developed for each type of data collection tool. The data was digitally recorded and analysed using Cognitive Mapping Technique (Jones, 1985).

3.1 Interviews with the community leaders

At the start of the project, in-depth individual interviews were conducted with the 5 key community leaders in order to provide some contextualise for the study but also to facilitate access for the rest of the project. These community leaders were selected through their previous and current involvement with the community issues and were identified from recommendation and through `snowball techniques'. An effort was made to diversify the sample in terms of regional background and generational status. The anonymised profile of the community leaders is given in the appendix.

The community leaders provided information around migration patterns, areas of concentration of Pakistani population in Nottingham, issues of phenomenon of `population churning' (a known issue for some areas of Nottingham where 1/5 of the community were reported to change in a 3 year period (Packham 2011)), regional background of the population, main occupations, relationship between caste , religion and food. Although these were in-depth interviews, an aide-memoire was used, though issues identified by the respondents were of course

given preference. The interview was conducted in the prefer language of the each participant. These include: Urdu, Punjabi, Mirpuri and English. Mr Hussain, who undertook the fieldwork, is fluent in all of these languages, so a translator was not required.

The data collected through the community leaders was used to develop the focus group guide and select the participant for focus group discussion and semi-structure interviews.

The main findings from the interviews of the community leaders are summarised here:

- People of Pakistani origin started to coming in Nottingham in the early 1950s. The largest group is from Mirpur region and then Punjab, Sindh, KPK. Therefore Mirpuri is the most used language of the community.
- Current population of Pakistani origins is around 12-15k
- Initially their population concentration was only in city areas like Seneinton, Seneinton Dale, Meadows, Forest Field & Hyson green. But now significant numbers of people also live in Wollaton, Beeston, Aspley, Sherwood, Westbridgeford. The community tends to settle around mosques and ethnic shops.
- The modal occupation for men is working as Taxi drivers and small businessmen or working for other small businessmen, such as shop owners within the community. A small percentage, from the second generation, has professional jobs.
- There are four main castes within the City - Rajppot, Arian, Jatt, & Gujjar
- With regards the Islamic sect, most of them are Bralvi
- No significant variation in food choices with reference to regional background and sect and caste affiliations were known.

3.2 Focus group discussion

Two Focus group discussions were held – one for male and one female. These were conducted to explore the factors effecting the relationship food choices and exercise patterns. 20 participants participated (10 in each group). The participants profile is given in the appendix.

The participants were asked to discuss the issues around following topics:

- Type of food being eaten
- Income, regional background, caste, religious sect, family visitors, social and religious events and food choices
- Food choices in general, workplace and among kids
- Exercise pattern
- Any barriers to exercise

The main findings from the focus group are summarise as :

- In general it is known that the foods consumed are full of fats and calories

- Income, regional background, caste & sect does not seem to influence food choice
- There are variations in food choices among 1st and 2nd generation, with the 2nd generation including more of `UK fast foods' in particular.
- Less exercise among all population groups within Pakistani ethnic group
- Barriers to exercise include: lack of motivation, cost, cultural and religious reasons (particularly for women), time available.

3.3 Individual Interviews

Previous studies have indicated difficulties in the recruitment of participants from ethnic minority groups (Kousar et al.) This was not found to be the case in this study, though it was difficult (given the limited size of the research) to have a representative diverse group in terms of regional background, 1st, 2nd and 3rd generation migrants, language, young and aged and people of diverse educational and occupational background. The study was advertised through the words of mouth to the general public and the community leaders and snow balling technique' was also used to recruit respondents. A link worker from The Carer Federation was particularly helpful in accessing female participants. A total of 40 adults aged over 16 years participated in the project. A profile of the participants is provided in the appendix together with the semi-structured interview guide.

Section : 4 Date Analysis

Data was analysed using cognitive mapping technique. This technique is extensively used in policy and health related research. Following main themes are identified:

4.1 Food consumption pattern

4.1.1. Defining typical Pakistani food

The respondents were all of the view that typical Pakistani food is fatty, spice and rich in calories. This food used to be, and still is, eaten in those geographical areas of Pakistan from where these people have originally migrated. Historically, people in those geographical areas were involved in farming and manual labour. It may be the case that fatty and rich calories food was necessity to perform the hard tasks there, but that diet has not changed with a more sedentary lifestyle in the UK.

All the respondents were fully exposed to traditional foods from childhood and they developed a certain taste for it. As they grew up; they said that they "kept on eating the same food". When people migrated to the UK, they found that their original food items and ingredients were readily available and so they continue eating the same diets here as well. On arrival in the UK most of the respondents reported that they were initially again involved in manual jobs.

The women of the house were socialised in cooking specific kind of foods and dishes from a young age. This also lead to cooking and consumption of same typical food among the 2nd generation children. They also started developing the same taste in their childhood but they were also influenced by outside environment in schools and peer. That is chiefly why they started eating other foods as well. This variation in food choices among generation is more elaborated in another theme below.

The research found that majority of the respondent's conceptualised typical Pakistani food in terms of its composition and constituents parts. The two main things for a basic Pakistani meal are Rotti (Chappati) and Salin (Curry/soup). Occassionally rotti is replaced or joined by some kind of rice dish. Both rotti and/or rice are eaten with some type of Salin which is made of vegetable, lentils or meat. The rotti is made of largely wheat flour and occasionally with maize flour as well and baked on fire in tandoor or Tawa. This is linked to the Pakistani cultural context from where most of the respondents originate i.e Mirpur and Punjab region. It is notable that this type of food is also eaten in India which is neighbouring country and before 1947 both Indian and Pakistan was one and commonly known as sub-continent. Few respondents did refer to this as well.

> "Typically Pakistani Food is "Rooti Salin"(Chappati and Curry) … It is chicken Salin,gosht (mutton), Daals (beans), fried eggs, and… like I mean. Biryani (rice with meat) etc….In terms of Pakistani food, so when it comes to typically Pakistani food it is roti salin really. I think it is more of sub-continent thing, Indian, it is not really, I do not know if you call it Pakistani or Indian- Pakistani.Rice, chapatti, that sort of thing. Predominately it is roti. With everything it is roti." (M15)

> "I would class as chapatti, may be some curries, either lamb curry or... chicken curry, rice, Lentils, daals as you call them, so these are and Asian sweets as well Mithai , so that are Asian foods as well. Biryani, rice and chicken and things like that (5M)

In normal circumstances, these two basic food elements (rooti/rice and salin) used to be, and are still, eaten in those areas back in Pakistan. Both wheat and maize are cultivated in Mirpur and rice in Punjab region. The easy availability of wheat/maize and rice might be a reason for inclusion of these two as main or basic food items. Some of the participants also included additional food items such as traditional sweet dishes (Kheer , Zarda) samosay, pakoray and Asian sweets such as Mithai and Jalibi.

Few participants also defined typical Pakistani food in terms of its look, taste and nutritional characteristics such as oily, spice, chilli and rich in calories etc.

> "Typical Pakistani food is rich, very tasty, fried most of the time and very full of calories" (F2)

> "Anything with spices is Pakistani food" (M6)

There were also instances where respondents do not seem to agree with the common perception that Pakistani food is overly oily and spice and they justified cooking it by making comparisons with the British food.

> "I do not think that our community uses too much oil. British people put 1 spoon and it is cooked for 2 people and if we use one lid, it is cooked for a family of 6-7 people. Also this may be used for two times or two days". (F1)

> "When sometime we eat British food like jacket potato, you realise that there is not spice at all compare it to your own food… then you realise that it is too spice.…when British people eat our food… He will say it that your food is spice" (M7)

As previously mentioned all the respondents categorised typical Pakistani food un-healthy given their UK lifestyles. They were of the view that although the contents of the food are healthy but the way it is cooked makes it uh-healthy. They raised their concerns on traditional Pakistani way of cooking. They were of the view that in the traditional way of food preparation, excessive oil is used, and certain food items are deep fried instead of steaming, that there is too much use of spices and that chilli is used and food is over-cooked. Use of excessive oil and spices, it was thought, make the food fatty and hard to digest.

> "I think certain parts, it is healthy. I mean meat. It is the way it is cooked I think is the problem. The way it is cooked is not healthy. That is the amount of salt and spices put in or the oil used. I think that is quite excessive and makes it unhealthy or letting meat cooked such a long time that a lot of sort of nutrients in the meat are sort of evaporated. I think that is the problem. I think in terms of the contents put in, the vegetables, tomatoes, it is healthy food. It is the way it is cooked is not best" (M15).

> "Typical Pakistani food is healthy but it depends how you cook it. If you put too much butter in, too much spices in, too much un-necessary ingredients then it is not. But it is healthy, because lot of people like Asian food, whether curry, chapattis, or rice. It just depend how you make it"

> [Typical Pakistani food is] "Completely un-healthy, completely un-healthy. Because for most of the people if they cannot see layer of oil, women get blamed , oh…she does not know how to cook properly…even the vegetable is over cooked" (F7).

> "It is not light food. It is always heavy food… [Heavy food means] rich in flavor and made with strong ingredients…. [Such as] chili powder, oil, concentrated herbs [Which] makes heavy for digestion" (F6).

> "We need to have measured approach. How much spices we need to put, how much oil we are going to put and how much we are going to cook. In many families this is not the approach" (F5)

Use of excessive oil is linked to the perception that Salin gives food a good look and become presentable/acceptable and tasty to the community/family members. Similarly spices and chilli is used to make the food tasty. As they started eating this kind of food in their childhood and now over the years their tastes have developed accordingly. Changing this taste and eating less spice or chilli is now difficult and they do not enjoy food without these. The other concern is over-cooking of food because it destroys food nutrients. The participants were of the view that it is difficult for them to reduce cooking, because if food is not cooked in the ways expected then it will not be acceptable among the family/community members.

> "Problem with our Asian community is we put too much oil and butter, the perception among our community is the more you put in, the better is the taste" (F3)

4.1.2 High meat Consumption- a social phenomenon

The other things which respondents thought made typical Pakistani food unhealthy are consumption of meat and fried food like samosas, pakoras and mithai etc.

With few exceptions, all the participants were of the opinion that level of meat consumption is very high among the Pakistani community. Interestingly, meat consumption was related to social class, family visitors, social events (weddings etc.), gender, taste, affordability and convenience.

> "It [Meat consumption] is very high in the Pakistani community" (M15)

> "Meat consumption is high. Pakistani and vegetarian, it is difficult to think of it" (M16)

> "In this country if meat is not cooked in family, people considered that family as poor family" (M12)

Meat dishes are considered as high class dishes within this community. Meat consumption is related to signs of high social status and respect. This leads women to cook or offer meat dishes to family visitors and social events, and this is also expected by the men. Offering only vegetable or lentil dishes to the visitors or social events is identified as something which will not be acceptable to the fellow community members and the guests will feel insulted and not well looked after.

> "It [meat] is a dish that is premium dish compare to daal (lentil) something. You know if someone comes, you do not make daal, you make gosht (meat). If some guests come to your house you are not going to give them daal or it is going to be gosht .It is like classy dish compare to… There is that sort of understanding … I mean this is top level dish. And some people I think now because they can afford it, they want top level dish every day. And it is normally gosht or, choosa (chicken) premium dishes. And it tastes good. It does taste good. And there is also that sort of element" (M15)

A finding of the research is that meat consumption is a masculine phenomenon in this community. The women participants were of the view that male family members tend to like more meat than females. They linked this with masculine strength. There was however some indication that meat consumption is decreasing in 2nd and 3rd generations.

> "Pakistani and also Muslim, is meat eater… We eat lot of meat. Male eat lot more [because] it gives strength to his muscles and bones …muscle become stronger" (F15)

> "Male like meat in Pakistani families. They will eat lentil but they eat more meat… because they were working very hard in the factories initially". 13F

> '"If you give option to a Pakistani man of meat or vegetable , he will eat meat. I am talking about typical man. [Because] probably they were brought up like this… But there is a difference in men among second generation. First generation was more meat oriented". (F3)

There was also a perception that meat and fast foods are more affordable and easy to cook compared to vegetables. As the majority of the respondents came from poor background in Pakistan and meat is quite expensive there, then this might be a reason that when it has become affordable, they eat it more. Something which they were unable to have in past, "when it is available and affordable, its consumption has increased in this community" (F5). Cooking chicken is bit easier than vegetable. Because, for vegetable, you need to cut it and then cook. Whereas when you buy chicken, it is ready for cooking. People do not have to do much effort in cooking chicken as compared to vegetable. So, this sort of convenience may also be a reason for higher consumption of meat.

> "Pakistani community living in England eat lot of meat. And the part of the reason is chicken is cheaper than vegetable. It is easier to cook as well" (M3)

4.1. 3 Food cooking and deciding menu is a feminine role

In Pakistan, food preparation and cooking at the house hold level is traditionally a women's task. Men do cooking but for commercial purposes in the restaurants and food outlets. This trend is generally prevalent in all parts of the country and there is not much difference in terms of socio-economic status, urban/rural, educated/un-educated etc. Cooking food for the family members is also part of caring role for women for the family members. This is supported by Kousar et al (2008)

> "In Pakistani community, most of the time food is prepared by the women of the house, either she is a mother, or wife or elder sister" (F2)

Girls and boys are socialised in gender specific social roles. Girls are more orientated towards household chores and boys get socialised about external matters. The research found that similar kind of approach is prevalent among the community in the UK.

> "Asian men tend to think that kitchen is women's duty…that is how our men are" (F8)

In a Pakistani community, predominately people still live in joint and extended family system. It is a common understanding that the families where mother-in-law and daughter-in-law live in the same house, it is mother-in-law who holds more power and it is daughter-in-law who performs most of the household tasks such as cooking.

> "In my house, it is mainly my wife and my mother. Initially it was my mother but now since I have been married, my wife does cooking" (M15)

The only one exception where it was identified that men do occasional cooking as well are exemplified here. This trend may be generally more relevant to those household where both husband and wife are educated and working. This respondents is educated and teacher in school. This also indicates that cooking by men is not part of the Pakistani traditions rather it is perceived to be an aspect of British culture.

> "[My] wife cooks .This is traditionally. But occasionally men do now as well. This is the good thing we are picking from British culture" (M3)

The process and the final decision regarding the menu in the household have important bearing on dietary pattern of the family members. It also signifies the population group to target if change in dietary patterns is required. For example, if the menu is decided by only women, then focus of change is likely to be on them. However, if it is decided in consultation with other family members then all family members need to involve in the change process and whole family approach can be more effective in this community.

The current research found that in majority of the instances, menu is decided in consultation with other family members but final decision is made by woman (wife/mother) herself. The role of parents-in-law is also identified.

> "[The menu is decided by] the Lady of the house…There is [consultation]...She does some times…she does sometime. At the breakfast time she will ask …Generally she will ask the people of the house, what you would like to eat today. But most of the time she makes up her own mind (2F)"

> "There is intake, there is question what to make for tonight in the morning, then after getting responses it is finally decided by mum" (M2)

> "My parents in-law decide what to cook" (F17)

This consultation seems to be an effort from women to increase acceptability of what is cooked among all the family members.

> "I set the menu in consultation with kids and husband. [Because] I cannot make anything which they do not like… But my decision is final" (F4)

"I will ask kids and husband if they say something I will cook that" (F3)

"Setting menu is difficult choice to make every day. I ask them what they want; if there is no response I will cook what is available" (F11)

Few respondents also said that menu selection is a woman's decision because they do the shopping. As evident from above the timing for this decision is normally at the breakfast time.

4.1.4 Food and ethnic identity

Majority of the respondents associated their ethnic identity with typical Pakistani food. The association of food with ethnic identity is related to in many ways. For example the way food is cooked and presented, type of dishes cooked and the origin of these dishes. These are specific to specific ethnic groups and their place of origin.

"I think there is identity association. Some of the ingredients used are Pakistani" (M2)

"Wife would make what she knows. You become used to it .it is part of our identity this way" (M14)

"Yes, it is obvious , for example me, who is here for 40 years , instead of this long time, I will continue my food , whatever, it is curry and chappati. I am not going to change that into fish and chips and burger. As a Pakistani, I would like traditional food. Although, I am suffering from heart problem, but still, I would eat my food, it may be bit light food, cooked in my own way. Asian Food is our identity. You ask it identity, taste, or traditional thing, we will continue to eat." (M9)

"There is identity relationship. It is the culture you are born and you follow it. it is the way I am brought up and food is part of it". (F4)

"If you make some English food, people [guests] will talk…they will say you are losing identity ...We have to prepare Pakistani food for them" (F5)

"Food gives us our identity in a sense, where we have come from, what kind of culture we have…. our food defines who we are." (F19)

"Every culture has food as identity…we are bit aggressive nation …because I think the spices …like ...they are into us…we cannot get away without them…very aggressive, very emotional. Any food represents their nation. Everything you eat…it represent you …it does have effect on your behavior" (F17)

There were four participants that didn't see any link between the food choices they make and their identity.

> "I have never thought really like that. I never thought of eating Pakistani food because of Pakistani. I just , I think I have just always grown up with eating it and see it as normal...I think it is normal for me to eat. It is the taste. I like the taste.Ummm… I do not associate my identity with the food. I just eat what I like to eat and Pakistani foods and whether it is Jacket Potato, whatever, I never thought of it like that" (M15)

> "No identity relationship. If you go to a restaurant you will see that there are 80 per cent White [British] and 20 % other. It does not mean that they are eating Pakistani food so they are Pakistani…it is just taste which you have developed over time" (M13)

> "It is just, you will eat what is best for you. You will not eat because you are Pakistani. You eat whatever is best for you and whatever you like obviously" (M20)

> "I can eat fish and chips but I'm still Pakistani. It is the way we are brought up. But I cannot eat fish and chips every day. I cannot eat English food every day. But I cannot get tired eating chapattis every day…we are used to food with our salin and rotti"(F12)

Respondents did mention that with few exceptions, taking typical Pakistani food dishes to their workplace is not a problem for them. However, it seems that people are conscious of their surroundings in the workplace and would try to fit in with majority. The respondents also mentioned that at the workplace their colleagues like Pakistani food and they happily share with them. The strong smell of the food especially onion used in cooking the food is stated to be the reason for feeling embarrassed in taking Pakistani food workplace in general and schools in particular.

Following quotes are in response to the question which asked whether they feel embarrassed in taking Pakistani food to their work place.

> "Not at all. Not at all… I do not bring in Roti salan in the office but I do not think there is ever a problem if I was to bring rotti salin in the office.[Because] I think sometimes it is quite a lot of effort to bring in…I am just bit of lazy in bringing food in but I do not think it is problem brining in. One thing there is sometime some of the dishes have quite a strong in its smells, so you don't want to sort of have that smell in the whole office. Its people are working, if anything that make them uncomfortable.[For example]… certain curries do have really strong spice smell in them. In the place of work, you do not want to offend others if they are not .I do not think there is any problem, but everyone in my office love curries. Emmmm…Sometimes you know you do not want to be smelling of curies.If you are in professional meeting or some kind... I know some time…I think you need to have keep in mind not to offend others". M15

Another participant explained it as:

> "I do not immediately see that as a major problem… I think for… British Pakistani, I think there is tendency where we feel may be some sort of embarrassment, or maybe you know this we haven't come… to use to it … we go to work , we have expectations of try to fit in work ,and one way we fit in is perhaps not having huge curry… people do tend to bring in their own food and is not a big problem, and I have seen people who have brought in their curry" (M5)

In case of children at School, it seems that there is greater feeling of embarrassment in taking typical Pakistani food to schools for lunch. With one exception, all the participants were of the view that kids do not like to take typical Pakistani food to school for lunch. Although convenience is also stated a reason but fear of being labelled and feeling of embarrassment was main reason behind this practice.

> "Children do not like to take Pakistani food to schools .They think…They are going to be called names...they are going to picked on by the English children that you are eating curry , you are Paki…and they do [White English children]" (F4)

> "No…they are bit… they don't like it eating in school… [because] I don't think the Mums will offer the chapatti and Curry I don't know. Who will warm it up?"(F2)

> "Kids will not take [typical Pakistani Food]… because they are minority… because it smells… although English people like it and sometime teacher will say that smells nice... but they still feel shy to take their food because of the smells and attention it attracts"(F11)

There was only one case of disagreement:

> "They [kids] do not feel embarrassed; they feel proud in introducing their traditional food to " (M12)

4.1.5 Food variations among the generations

The research found that food choices within Pakistani community are changing among generations. The people who are born and brought up in Pakistan are more oriented towards their traditional diets while the 2nd and 3rd generations born and brought up in the UK eat traditional Pakistani food but also foods from other cultures. 2nd and 3rd generation also have tendency to eat more food from Takeaways , restaurants and popular food chains like Macdonald, KFC, Subway etc.

> "Obviously very much difference... The generation which have come from Pakistan, they like traditional food. The kids who were born here they like burger, chips , things like quick snack like White [British] people they can eat quickly." (M9)

"For the first generation, there were simplicity in choices of menu and food…but this generation [2nd] there is combination of west and east. They may have similar kind of food to the west but adding spices to flavor it `. [Such as]. …may be in my case personally …eating outside ...pasta dishes and then add spices to eat." (F6)

"The 1st generation would love to have roti and daal and may be one vegetable that is the best they can …The new generation, they will have lot of ...chips are very very very much...very much in fashion now a days , fish & chips… pizzas, burgers , eemmmm...pasta…pasta is the…some children do like pasta a lot." (F2)

The study found many reasons for this variation in food choices among generations. Amongst the main reasons include influence of outside social environment (schools, peers, and media), convenience, eating something different for change, availability and taste. When 2nd generation children go to school, they are given school lunches which are not from typical Pakistani food. So there they start developing taste of other foods. As they grow up and frequency of contact with other cultures increases, they tend to start making food choices different from Pakistani food. Participants perceive that eating typical Pakistani is not a convenient option for children outside the home. Pakistani foods take time in preparation and cooking and it also need to be warm before eating and "then of course there is the washing the pots!" Because of all these factors, people from the 2nd and 3rd generations are more likely to eat fast food and takeaways. It also seems that 2nd and 3rd generation also eat different foods as a change from eating traditional Pakistani curries. Many participants identified the availability of takeaways as an important reason for change in the food choices of 2nd and 3rd generation.

"I think there are lot more food choices in the second generation, my mum she never worked, she always were at home , she hardly went out ,she did not integrate with other people…from different communities . Now a days you have people coming from different parts of world into England , we go at work and meet different people, so we get to know about different food culture and things like that .whereas I think our parents , you know even back home they were brought up with traditional kind of food. They carried that forward" (F19)

"If you do not have in childhood it is difficult to change taste …back in Pakistan we have little variety"(M3)

"The reasons are, this British food is light, quick snack, you can eat while walking. For our chapattis, you need to sit down to eat, you need curry. For kids, if thy are out, they gone to library, they will go to Macdonald, they will buy chips, he/she eat it while walking and then start reading again in the library. For curry and chapptti, he has to definitely come back and tell mother that I want to eat this. It is also matter of time. Currently, time is value rather then anything else. Everybody rather educated or uneducated, everybody is busy here". (M9)

> "When they are younger, you can feed them but when they are grown up, they are moving away , then they start going out and making choices " (F18)

Although there are well identified variation in 2nd and 3rd generation's food choices, but few participants also raised concerns over the unhealthy side of the food and not ethnic identity.

> "Younger people would prefer quicker... Fries and pizza and burger … it is concerning because children are getting fatter… they are not healthy". (F11)

> "I still think their [1st generation] diet was better than ours… because when I was younger, we never have takeaways … I did not know that I can have takeaway till I was about 16/17 years old. Children now … this generation wants… they think it is necessity to take out" (F4)

It was also observed that there are more variations in 3rd generation community members as compared to 2nd. Most of 2nd generation is in early 40s and 30s and late 20s, the 3rd generation is in early 20s, teens and kids age .

There was exception where respondents said that there are not variations in the food choices among generations and the variation. This was linked to the fact that parents did not introduced foods from takeaways and restaurants to their 2nd and 3rd generation.

> "There is not much difference between us and them in what they will eat… It depends how your house hold is. How you culturally bring up your children. If the diet consists of English food from birth, obviously they will not eat Pakistani food. At school they will eat English food that will become the norm for them, so they will only eat English food. If you eat a range of food at home, sometimes English sometimes, Pakistani then those children will eat a mix range of food" (M18)

Regarding the food choices of the children, the majority of the respondents were of the view that their children like fast foods.

> "If they have choice they will go for fast food and takeaways" (F3)

> "They [kids] love it [fast food]. They like it every day if let them" (F1)

> "Kids love fast food" (M3)

4.1.6 Food and income relationship

The research found that making healthy or unhealthy food choices are not significantly linked to affluence in this community.

"I do not think that you change your diet pattern with the money. I know lot of families; they have lot of money but eat the same. I think it is because of awareness" (F18)

"[In]Pakistani community, I think if they are rich , they just eat more, they just eat, more sort of premium dishes, gosht(meat),choosa (chicken) all the time , I think …it might look bad them eating daal as status thing" (M15)

4.1.7 Family visitors and food choices

There was consistency in the response among all participants that family visitors do influence on food choices. For visitors multiple dishes are cooked and meat is important part of these dishes. However, it was found that number and type of dishes will be influenced by income level of the family , nature of relationship with the visitors , age and emigrants generational status.

"It is traditional to make meat dishes when you have guest… It is traditional to make variety of couple of dishes... I think it is our culture" (F1)

"It is difficult to cook vegetable for guest … cooking meat is cultural thing … it is in your conscious… if you cook meat then that guest will feel that he/she has been respected." M13

"We Pakistanis are very hospitable. When there is guest I would not feel comfortable offering one dish. It is a custom and we tend to follow it without knowing it" (F8)

"It does influence. When you get guests … it becomes little bit of show off. Cooking of really nice food… Looking after your guest… those sort of items becomes…exclusive items. Like samosas, pakoras …Chicken dish or biryani ...Sweets… Pakistani traditional sweets. These sort of things that come out …This sort of things becomes premium dishes" (M15)

4.1.8 Food choices on social and religious events

There was a very dominant view that social and religious events like weddings, Khatam (on death) and Ramadan influence food choices. Typically these events have set menus but also relate to income level of the person. There will be typical menu but if someone have money and want to spend he/she will add certain other dishes to typical menu. It is customary to make meat and rice dishes on these events. In Ramadan , particularly consumption of fried food increases many folds.

Common menu for wedding will consist of two curries , chapattis and rice with one/two/three sweet dishes. The number and choice of the sweet dishes will depend on how much one is rich and willing to spend. The sweet dishes include

Zarda, Kajar da Halwa, Rus Malai, Kajrala.Some time there are two/three starter like roast chicken legs, kebab, fish etc.

> "On no wedding you will see that they have just given you fruits" (F2)

> "People will not accept vegetable and chapattis at the wedding …There have to be meat present and variety of things to get accepted…if you offer only vegetable …they will eat it but talk about it (laugh") (F11)

A commonly reported menu at Khatm will be two curries, chappati and rice and fry food like samosay, pakoray , along with yogurt. Set menu for Ramadan is Pakoray, samosay, kebab , fruit for Ifftari and after that Chappati, rice, two/three curries / cold drink like juices/fizzy drinks.

> "I think Ramadan is worst month. Samosa, pakorays , there is perception that we need to have it on the daily basis" (F3)

> "[In Ramadan] we eat fry food every day… Without this we think there is nothing on the table. We are used to it". (F8)

> "[In Ramadan] we like more oily things. They are very tasty and we also use them more." (M8)

> "In Ramadan… in my house …When you come to ifftar …there is so many dishes on the table , so many dishes like , if you eat them , it is totally full for taraveeh(night prayer)" (M15)

> "In Ramadan, some extra things are like pakoras and samosas and dates. People think it is compulsory items for ifftari, people think without these, there is no good ifftari".(M12)

> "[In Ramadan] it [eating fry food] is culture thing. They go mad [in eating these things]." (F19)

4.1.9 Calorie consciousness in eating out

Overwhelmingly majority of respondents reported that they do not check calories amount when they are eating out at restaurants or other houses

> "If I buy food from out, there is less attention to check the level of calories, but for Muslim they definitely see whether it is Halal" (M12)

> "I never checked calories level. Just see whether it is Halal" (M14)

> "Lot of people are not bothered ...they just say ,so what , never mind… if we have to die, we have to die, why not to eat and die'"(F7)

4.1.10 Understanding about diet and CHD linkages

All of the participants had awareness that there is a relationship between the diet people eat and the risk of CHD. They expressed this in terms of cholesterol level, thickness of blood /excessive fats cause narrowing of arteries/ effect on circulation of blood etc.

> "I think… the level of fat we eat as of it and …all internal sort of organs , heart arties, circulation of blood...you narrow down of, arteries with cholesterol things like that… definitely have effect on our heart" (M15)

> "[salt] absorbed water from the blood. Obviously, the blood becomes thicker. Blood cannot pass from small narrow passages of arteries" (F12)

4.2 Exercise pattern - a historical and cultural phenomenon

The study found the exercise pattern in this community is also embedded in the original cultural context. The majority of respondents reported that they do not do any kind of regular physical exercise and this was especially the case for women. There were many reasons stated for this like understanding that they need it, lack of time, cost, age. However, the reason which most resonated were lack of motivation and a "culture of laziness in the community" (M13). It was observed that exercise is not a priority in the daily routines of members of this community. They do not see immediate value in sparing sometime out from their work or social activities and doing regular exercise.

> "I do not do any exercise… I have not got those calories to burn. I got kids looking after them is good exercise" (F17)

> "It is laziness, people do not exercise. Motivation is lacking …if you are overweight, they will not feel bad…even wife do not say anything …Women who come from Pakistan are worse in terms of exercise ...after marriage women do not take exercise serious" (M13)

> "There is nothing like a barrier, but there is laziness. Laziness is there… laziness in the sense… we people would keep on sitting for hours chatting but we do not make time table… we would keep on chatting…you are in the house just watching TV, different programmes are coming…you are enjoying them , but you need to cut it down and go out for walk". (M9)

> "Home treadmill is already in house ... women do not do exercise because they do not see benefit in that…lot of women think that doing home activities itself is lot of exercise which is not the case" (M2)

"In Pakistan women do not exercise culturally…they are used to that …when they come here …They do not" (M7)

Women tend to be more causal walking in the evening...Gyms are male dominated…religion come there…seeing a women jogging is not a norm…it is cultural barrier… it is generally across the Pakistani community a women running is not a norm (M2)

"There are not many choices available in the local areas. The local gym has one or two sessions available for women only, when sessions are available they might be busy with the children. Timing need to make suitable to cater needs of all women" (F8)

It was found that the occupation of a person may also be a cultural barrier for not doing exercise.

"As Imam if you put trouser on and go out, people from the community will say , look now Imam has also started this, then other things also come, they will say that Imam eat more that is why they are doing exercise to digest and it is part of culture." (M12)

The respondents considered slow walking, offering five times daily prayer and doing household chores enough for exercise. The respondents justified not doing regular exercise in many ways.

"Going to masjid and offering prayer is best exercise. For example in prayer, hand to foot is best exercise. it is best exercise . If someone is five time prayers, he/she is fit. We have seen the people who pray five times they are fit and not overweight." (M10)

The study found that there are many cultural barriers for both men and women of this community for joining gyms or leisure centre and even for doing exercise without joining these. The cultural barriers were more pervasive for the women. The cultural barrier includes not willing to join mixed gender gyms, wearing track dress, and the pressures from caring roles within household.

"A lot of Asian women are looking after their elderly… Sometime families do not like to go out2 (F11)

"Our Pakistani women do not go for swimming. It is cultural thing" (F5)

"Swimming centers have women only session but they have male guard, we complain many times but they have not changed it . There is no point of having women swimming center and having male guard on the pool side. I do not go." (F8)

A participant from seneinton mentioned that although there is new leisure center but people from Pakistani community, especially women are not using it.

"I think they need to make it more culturally appropriate for the Asian women…..more privacy and also the changing rooms are downstairs, I do

not know what the practicalities are. if you have to walk through the reception….you have to go downstairs ….that is not practical. Is not it?" (F19)

The participants unanimously agreed that exercising for women is not Anti-Islamic as indeed Islam encourages keeping fit and healthy. They expressed that women can exercise within the limits of religious teaching which requires them to be segregated from men and wearing proper dress which covers their body.

"Exercise for women is not anti-Islamic. If it is in a safe environment" (F12)

"Doing exercise for women is not anti-religion…The first thing religion tell you is taking care of your body…it is a gift from God. You need to take care of it… Hair, skin …….all needs to be looked after. These are all gift from God." (F17)

"There is nothing Anti-religion in doing exercise for women with in boundaries... in Purdah. Islam encourages you to look after body."(M12)

"Not anti-Islamic ...if it is segregated area. Restriction is on clothing and the place" (M3)

"Exercising for women is not anti-Islamic. Everybody have to keep fit and healthy. There are certain exercises which are against Islam , as long you know that the exercises you are doing are not for example ….may be swimming , I am not sure …..but it may be one of the sport. Apart from that I cannot see anything else . Within limits it is allowed".M20

Regarding after school activities of the children, the majority of the respondents were of the view that children like to do physical activities. This may be due the fact that these kids are given PT lessons in the schools and they are motivated towards more physical sports than computer games. But there was a condition attached to it that if weather is fine then kids will play in the garden or go to park otherwise they will stay inside and play with computer games etc.

Three of the participants were of the view that they do not permit their children to go out and play or do exercise because they feel unsecure about involvement of children in "immoral activities outside". This seems more relevant for girls.

People linked the need for exercise with the type of food they eat and weather conditions within the UK.

"In countries like Pakistan and India, I suppose , you can get away by eating more fatty diet because of the weather and the some of the work people have to do that. As result people are burning calories. In this environment [UK weather], people do not do that. Because first the environment and then mineral in the water is great. As result digestive

system need s to work harder, here exercise become essential. If you have heavy fatty diet then you need exercise to balance that."(M6)

"We have changed country. Weather has also changed, but our food is same. The body is also same .The ability which God has given to a body is according to weather. Weather helps it then water and climate also help … We should select food according to weather of this country." (M12)

"Genetically our body is related to hot weather… Because of cold weather [in the UK], there is no sweating… body do not digest properly" (M11)

There were also responses to the effect that there are no cultural barriers to exercise, but rather that women were using culture are a reason for being sedentary:

"In this country no barrier at all…it is laziness. For example I run a project, first I started lady exercise, and got lady instructor…she was white, but used to teach our women very nicely, I requested to all… my wife went to all our women in this area to come. She was very happy that with routine exercise they are feeling light but our women did not come out from their houses for exercise. I do not know what kind of laziness is …that run for six months but when the women were not going , I excused Broxtowe borough council to stop it…The women have to pay 2 pounds as contribution…They can sit for two days on singing (geet) but not exercise." (M9)

"There is no cultural barrier for women to do exercise. sometime it is mentality out there, if you say swimming they will just think, naked women and swimming but they do not know that it is safe place same with the gym……they will say…a gym which is full of men." (F17)

"Women go for shopping, why they cannot go for gym classes, they go for picking up their children…why not gym classes… it is laziness…with no offence, a lot of women that come from Pakistan, do not work …and they are not motivated to work… they are not motivated to do anything… where women here... a lot of us have to work, even if we do not want to work because the life style we want to live, it costs. So we make time, because you are working you have to… wear appropriate cloth… you have to look good in the profession you are in and that motivate a lot… You do not want to be overweight… you do not want to have grey hair… you do not want to do all that" (F1)

"Culture is not a barrier; they [women] are just, making it up. Excuses after excuses … This attitude is pervasive in both types of women… If they are from here, it depend what kind of family they are living , but if they are from Pakistan, then even it is harder for them to come… Even harder for them" (F12)

4.3 Awareness about interventions of Public Health

The majority of respondents said that there are not aware of the role of public health locally.

> "Not in Sneinton… I got leaflet about how many takeaways are in Sneinton but not anything else. Laugh" (F19)

Some said they know but not sure whether these were from Public health specifically or are from the NHS or Local Authority

> "Have seen leaflet to come to leisure centre… time is also set for women. Many times I have seen leaflet. I read leaflet… NHS mainly do bilingual…leafleting. There are advertisement on Radio and TV." (M11)

> "O yeah a lot… we set up an organization and got some funding for women only session for three hours a week in the gym… This was just for Pakistani Asian… We did some cooking sessions. We did health matter sessions" (F12)

> "I found leaflet in the surgeries about healthy eating program" (F17)

> "Things have changed lot. Even I can see leaflet in Urdu and English, lot of effort has been put into all these". (F20)

> "There are lot public health going on in city area not county area" (F3)

> "I have seen leaflet around. NHS eat five a day leaflet. I do not remember Public Health Department…There are programme on TV…They are not all relevant because of language…They usually talk about their own food not Pakistanis…I have not come across any programme for this" (F8)

One important comment about the culturally appropriateness of existing gyms and leisure facilities was:

> "They have spent 9 million on the leisure center but the thing is they have not built it to the needs of the Asian community… there is a majority of the community in the Seneinton is Asian and I do not think, they built it according to that … I mean basically… they should have done a survey, before they built it, which had not done. The changing rooms for the female. I think they are downstairs and facilities … for the ladies are upstairs. I do not know why they done that and also the swimming session last about an hour yes, 45 minutes. Even then there is not lot of privacy for the males. So that kind of put you off. You do not want to go; you do not want to access the facility" (F19)

4.4 Mutuality in health's responsibility

All the respondents viewed responsibility of health as mutual function of God and individual lifestyle factors. They viewed God as 'health giver' and individual as 'health maintainer'. This means that God plays role in genetic and physical makeup of the body and the individual does not have any control in the initial makeup of the body. There might be certain ill genes or physical disability in the body which are inherited from parents at birth. However, if someone is born without these ill genes and physical disability then it is the individual lifestyle factors which become responsible for causation of certain illnesses. One of the relevant examples is of obesity. Obesity may be the function of genetic makeup or the individual lifestyle.

> "I think it is both. God gives you health. But equally it is up to the individual to look after health" (F19).
>
> "Health is God given but you need to take care of it… God is not going to come down. He has given you brain to look after your self" (F12).
>
> "God has given you life, it does not mean that you jump in the canal." (M11)
>
> "It is bit of both. Genetically you may be obese but basically it is your responsibility." (M3)
>
> "Health is bit of both. Obviously God gives you health but then it is up to you to take care of it. If you neglect, you cannot blame God." (F20)

This view that God plays an important role in genetic and physical makeup of the body is derived from the basic Islamic belief system which teaches that everything in this world including the human being is created and controlled by God. All the respondents of both genders, regardless of generation or educational level, expressed this.

> "Being Muslim this is our belief that good health is God given , it is a gift from God" (M12)
>
> "Health is a gift from God … human cannot do anything himself… our all life is God given… everything is God given…even doctor and nurses will care you when God will say them...this whole world is made by God ".(F15)
>
> "Everything is from God, You cannot do anything without God's will" (F12)

This also raises an important point that if everything is created and controlled by God then when and how an individual can exercise his/her choice in health. The answer to this is given by number of respondents and is exemplified as:

> "When you are born, you are born without any…kind of diseases, or …you know you are kind of pure, are not you." (F19)
>
> "Initially Health is God given but then you need to main it" (M2).
>
> "If you are born healthy baby then you have to maintain yourself. Maintenance is yours." (M7)

As all the respondents were Muslims, this may be the reason for seeing the responsibility of health in this particular way.

For bringing change and promoting healthy life style this belief does seem to play some role in creating confusion among the people - ie if God is the ultimate creator and controller then they do not have to take any kind of responsibility for their health. As this thinking is originating from the religious belief system, there is need to bring clarity in the mind of common person in Pakistani community about the exact role of God and individual in health.

4.5 Promotion of healthy eating & exercise

4.5.1 Sense of pessimism for change

The research found that there is a sense of pessimism for change among community members. These views are expressed by respondents who have previous experience of working on community projects. They also observed that a 'cant be bothered attitude' is pervasive in the community.

However, the respondents themselves suggested various strategies for brining change.

4.5.2 Raising awareness

The need to increase awareness among Pakistani community about the role of diet and exercise is identified a first step towards brining change. Organisation of well planned and professionally delivered talks in community centres and mosques, cooking classes, taster sessions, organised walks are important elements. Use of appropriate communication messages and channels is also identified important for brining change. Local community Radios (Radio Dawn , Radio Faza), leafleting, face to face sessions are considered key for bringing change.

It is apparent from the data that leafleting should not be done in conventional way of just putting them into door letter box. The respondents suggested that face to face sessions can be more useful for this community. Many women and men of an older generation may be illiterate. They will not be able to read leaflet and booklet. They might need someone else to read these for them which add another barrier. Face to face sessions can also be helpful because the participants can ask questions. However, the presenter should be professional , having command on various regional languages which are spoken in this

community (Urdu, Mirpuri , Punjabi, Sindhi, Pashtu) . The participants identified Urdu , Mirpuri and Punjabi as main languages being spoken in the Pakistani community living in Nottingham.

4.5.3 Consistency in change efforts

Participants suggested that consistent efforts would be required and people will not change by just giving them leaflets and few face to face sessions. A team of dedicated people with relevant professional qualifications and experience may be useful.

4.5.4 Role of religion and Imams

The role of religion and religious figures like the Imam is a crucial element of any change strategy. People can be sensitised effectively about health issues by linking these issues with religious teaching. Development of communication material for leaflets and Radio programmes can also be more effectively with this community if it is linked with religion.

It was suggested that Imams can play important role in this change strategy. Members of the community attend the mosque five times a day but there is a larger congregation on every Friday prayer. Almost from every household men and from some houses even women will attend Friday prayer. This is the opportunity to make people aware and the Imam can relate to religious teaching about healthy eating and keeping fit.

4.5.5 Bait for change

The change strategy also need to be incentivised. If there is incentive for the people to change they are more likely. For example the respondents mentioned that if there is some kind of visible incentive for women/men to attend health talks they will. These incentive may be free food (taster sessions), voucher etc. Similarly, for getting people into habit of doing exercise , they need to be incentivised through making gym membership free or reducing cost to very minimal.

4.5.6 Role of authority figure

The research found that role of people who have authority in terms of their profession such as doctor may be useful for brining changes in lifestyle of people from Pakistani community. Many respondents were of the view that people listen to the doctor as much as to the Imams or community development worker or community leader. It was also suggested that as GPs have a status in the community for helping the people, involvement of GPs can be very useful for brining desired changes.

4.5.7 Increased Local Level community Projects and Recruitment of Asian staff

Many respondents were of the view that due to purdah and other logistics reasons, women are more likely to attend local level gyms and other health

related sessions if these sessions are conducted in complete segregation from men. Recruitment of Asian female staff was also suggested by many respondents to increase the uptake of existing exercise and gym facilities.

Section : 5 Summary of Findings and Discussion

- People have understanding that it is mainly individual who is responsible for taking care of healthy
- Typical Pakistani food is known to be rich, fatty and spice
- There is recognition in the community that their diets are not healthy
- Cooking food is related to gender roles.
- There are variations in the food choices of 1st and 2nd generation. This predominately is due to influence of socialization on them.

Section : 6 Recommendations

- Knowing the community in terms of its demographic and social and cultural characteristics is an essential pre-requisite to intervention.
- Design of the interventions and literature should be informed by the principles of cultural competence. This will facilitate health promotion in this culturally and linguistically diverse community.
- Engaging the community through community cultural leaders.
- Identifying well reputed community organization and community leaders from the Pakistani ethnic group.
- Employment of bilingual staff
- Using existing informal networks within the communities and holding these programmes nearer to this community as much as possible.
- Training modules should be based on the area identified in the study- how body functions? What is the role of fats and spice in illnesses? Disadvantages of eating out and junk food? Alternate to salt and fats ? how much physical activities is needed for a person? What older people can do ? How husbands can encourage better family health? how wives can encourage better family health ?
- As the food preparation is primarily women's responsibility, focusing on women can be very useful for entire family. However, efforts should be made to take whole family approach as suggested from the data
- 'Incorporate' idea of exercise among Pakistanis through walking clubs and gender segregated exercise opportunities

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Glossary of terms

Chapatti : (in Pakistani cookery) a thin pancake of unleavened wholemeal bread cooked on a griddle

Curry : a dish of meat, vegetables, etc., cooked in an Pakistani style sauce of strong spices

Kheer: rice budding

Mithai: Different kinds of sweets made with heavy amount of oil and sugar

Jalibi: a kind of sweet heavy in sugar and oil

Samosa: a triangular savoury pastry fried in ghee or oil, containing spiced vegetables or meat.

Pakora: (in Pakistani cookery) a piece of vegetable or meat, coated in seasoned batter and deep-fried.

Ghee : clarified butter made from the milk of a buffalo or cow, used in Pakistani style cooking

APPENDICIES

Community Leaders Profile:

	Age	Education	Generation	Language	Role
1	60	BA	1st	Mirpur	Community dev.
2	40	BA	2nd	Punjab	Local & national Politics in the UK
3	68	5th grade	1st	Mirpur	Community dev.
4	42	BA	2nd	Mirpur	Community dev.
5	82	BA	1st	Mirpur	Local Councillor

Profile of Male Participants of Focus Group Discussion:

1	40	Bachelor	1st	Punjab	Taxi Driver
2	45	10th Grade	1st	Mirpur	Taxi Driver
3	45	10th	1st	Mirpur	Taxi Driver
4	49	LLB	1ST	Mirpur	Taxi Driver
5	36	12th	1st	Punjab	Taxi driver
6	38	10th	2nd	Mirpur	Taxi Driver
7	42	10th	2nd	Mirpur	Business man
8	40	10th	1st	Mirpur	Self employed
9	30	12th	1st	Mirpur	Self employed
10	30	12th	1st	Mirpur	Self employed

Profile of Male Interview Participants:

P .ID	Age	Edu.	1st/2nd gen.	Address
1	41	GCSE	2nd	Wollaton
2	20	A level	2nd	Wollaton
3	34	LLB	1st	Radford
4	20	A level	2nd	Beeston
5	34	PhD	2nd	Bobber Mills
6	45	Graduate	2nd	Beeston
7	32	BA	1st	Aspley
8	31	A level	2nd	Mapperly
9	62	10th	1st	Beeston
10	30	10th	1st	Bobber Mills
11	39	10th	2nd	Forestfield
12	34	MS.C	1st	City Centre
13	47	BA	1st	Sherwood
14	52	10th	1st	Wollaton
15	29	MA	2nd	Hyson Green
16	71	10th	1st	Westbridge ford
17	69	10th	1st	Sherwood
18	64	MBA	1st	Forest field
19	42	LLB	1st	Forest field
20	31	GCSE	2nd	Meadow

Profile of Female Focus Group Participants:

Participant ID	Age	Education	Generational Status	Regional background	Occupation
1	40	GCSE	2nd	Mirpur	Support worker
2	79	None	1st	Mirpur	Pensioner /housewife
3	33	GCSE	2nd	Mirpur	Housewife
4	45	None	1st	Mirpur	House wife
5	47	5th	1st	Punjab	House wife
6	74	None	1st	Mirpur	Pensioner
7	58	10th	1st	Punjab	Housewife
8	40	5th	1st	Mirpur	Housewife
9	35	GCSE	2nd	Mirpur	Housewife
10	46	5th	2nd	Mirpur	Housewife

Profile of Female Interview Participants:

P .ID	Age	Edu.	1st/2nd gen.	Address
1	39	GCSE	2nd	Wollaton
2	63	Midwife	1st	QMC
3	39	BSC	2nd	Beeston
4	37	A level	2nd	Wollaton
5	29	10th	1st	Wollaton
6	39	A-Level	2nd	Beeston
7	54	MBBS Doctor	1st	Wollaton
8	40	A level	2nd	Forestfiled
9	38	PGCE	2nd	Bramcote
10	34	Degree	2nd	Mapperly
11	51	Support worker	2nd	Wollaton
12	52	Health Teacher	2nd	Meadow
13	43	GCSE	2nd	Beeston
14	57	GCSE	2nd	Wollaton
15	57	GCSE	1st	Aspley
16	45	O-level	2nd	Hyson Green
17	30	O-level	2nd	Meadow
18	30	GCSE	2nd	Wollaton
19	35	A level	2nd	Sneinton
20	40	BA	2nd	Wollaton