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## Perceived barriers to initiating and maintaining physical activity among South Asian and White British adults in their 60s living in the United Kingdom: a qualitative study.

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**Objective.** To explore the barriers to initiating and maintaining regular physical activity (PA) among UK Indian, Pakistani and White British adults in their 60s.

**Design.** An exploratory qualitative approach was utilised using 15 focus groups and 40 in-depth interviews. Purposive sampling was used to recruit participants with different experiences of participation or non-participation in PA.

**Results.** Misunderstandings about the value of exercise in later life, particularly for those with ongoing healthcare problems, were identified in UK South Asian and White British older adults' accounts of their experience of the barriers to initiating and maintaining regular PA. Both groups and genders said that PA could exacerbate pre-existing health problems and result in physical harm. Although most beliefs were similar to those of the White British, ethnic-specific factors, such as language barriers, religious beliefs and cultural practices could act as additional barriers to undertaking and maintaining PA among UK South Asian older adults.

**Conclusions and implications.** Understanding the multiple levels of influence on older adults' PA behaviour can provide the basis for developing comprehensive approaches to health promotion initiatives aimed at increasing PA levels. Healthcare providers need to understand the characteristics and specific barriers faced by these groups of older adults; work with older people from these groups to develop culturally appropriate PA programmes and address the misunderstandings and misconceptions about the value of exercise in later-life, particularly in those with ongoing health problems.

**Keywords:** barriers; exercise; physical activity; older adults; ethnicity; South Asian

### Introduction and background

Increasing physical activity (PA) remains an international public health priority (World Health Organisation (WHO) 2010) with evidence suggesting that regular PA promotes health, well-being and health-related quality-of-life, whilst reducing functional disability and risks of premature death from heart disease, stroke and Type two-diabetes (Department of Health (DH) 2009, 2011; WHO 2008).

Recommendations advise older adults aged 65+ to accumulate up to at least 150 minutes of moderate intensity activity in 10 minutes bouts or more, or 75 minutes of

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vigorous intensity activity over-the-week or a combination of both (DH 2011; WHO 2010). However, levels of PA decline with age (DH 2011). The percentage of those aged 65+ who are inactive globally is high (WHO 2009). For example, in England 19% of people aged 65–74 meet the recommended levels of PA for health (National Health Service (NHS) Information Centre 2008); whilst in the USA 24–34% of adults aged 65–74yrs are inactive (Agency for Healthcare Research and Quality 2002). Even when exercise is initiated, dropout rates from structured programmes are high (Jancey et al. 2007). Sedentary behaviour is common among South Asian (SA) (those originating from the countries of India, Pakistan, Bangladesh and Sri Lanka) older people in the UK, with only 11% of SA men and 8% of SA women aged 55+ undertaking recommended levels of PA (Sproston and Mindell 2006). Similarly, levels of physical inactivity are increasing in India as a result of economic changes and urbanisation (Sullivan et al. 2011). This is associated with a greater incidence of coronary heart disease, stroke, non-insulin dependant diabetes, and mental health problems (Sproston and Mindell 2006). Similarly, high prevalence rates of inactivity are seen among minority groups in Australia (Armstrong, Bauman, and Davies 2000), Canada (Liu et al. 2010), New Zealand (Sport and Recreation New Zealand 2003) and USA (Evenson, Buchner, and Morland 2012).

As populations globally age (United Nations 2002), keeping physically active can be an important means of preventing disease or ameliorating a condition's progress when onset has occurred (WHO 2008). However, the mechanisms underlying sedentary behaviour among older adults are complex. Several studies highlight factors, such as poor health, declining physical abilities, low motivation and poor knowledge levels, as well as social factors, such as lack of social support, cultural expectations and norms, and gender differences in PA perceptions as barriers to undertaking PA among older adults (Lawton et al. 2006; Sport England 2006; Sriskantharajah and Kai 2007; Horne and Tierney 2012). Cultural variables and language barriers are related to some negative late-life experiences affecting both adoption and maintenance of PA (Lim et al. 2007). Additionally, environmental factors and aspects of the built environment act as contributory barriers to the uptake and maintenance of PA (Bird et al. 2009).

The mediators of change among older adults in their 60s are not well understood. Few studies focus on factors associated with adoption and maintenance of PA among older adults in their 60s (Stewart et al. 2001a, 2001b; Sport England 2006) and even less have considered SA people's beliefs in this area (Lawton et al. 2006; Sport England 2006; Sriskantharajah and Kai 2007). This age period is an important transitional time when it is possible to promote a more active lifestyle to improve physical health and psychological well-being in old age (Slingerland et al. 2007).

## **Definitions and terms**

### ***Physical activity***

Health enhancing PA is taken to mean any form of PA benefiting health and functional capacity that does not cause undue harm or risk (Foster 2000). PA constitutes any bodily movement produced by the skeletal muscles resulting in energy expenditure, for example organised activity, such as dance, sport, deliberate exercise

or informal activity, such as walking, swimming and gardening (Caspersen et al. 1985). Sport generally involves some element of competition (Cavill, Kahlmeier, and Racioppi 2006); exercise is considered a subset of PA, purposely taken to improve some aspect of physical fitness, for example muscle strength and endurance or to improve health (Caspersen et al. 1985).

### ***Culture and ethnicity***

Culture, in this paper, refers to shared meanings and ideas, acquired through a process of language acquisition and socialisation (Kagawa Singer 2012). Hence, cultural groups tend to hold similar values and beliefs about acceptable behaviour. However, culture is a dynamic and ever-changing process, influenced by social, historical and geographical factors (Kagawa Singer 2012). Therefore, factors such as migration shape intragroup variations in behaviour and lifestyle (Hunt et al. 2004).

Ethnicity is a ‘contested concept’ (Anthias and Yuval-Davis 1992) with essentialist discourse emphasising how ethnic groups are constructed as cultural groups that are distinguished by common cultural heritage, homogeneity and distinctiveness from other ethnic groups (Rattansi 1992). This notion separates the population into distinct groups, which can potentially lead to stereotyping, fails to account for variation in experience among minority groups and does not acknowledge the fluid aspects of identity and membership (Modood et al. 1994). Therefore, caution is required when denoting categories in such immutable terms.

The SA population is heterogeneous in terms of nationality, religion and language and incorporates individuals from a diverse range of socioeconomic and cultural backgrounds. Although we may expect there to be differences in the experience of barriers to uptake and adherence of PA between SA and White British older adults, it is important to avoid stereotyping of older adults by their ethnic grouping (Modood et al. 1994).

The terms used to describe the UK SA and White British older people in this study were initially based on how participants identified themselves at the time of focus groups and interviews, for example, if people identified themselves as Indian or Pakistani, they were designated under the generic term ‘South Asian’; those who identified themselves as English or Welsh, were designated under the generic term ‘White British’. We then defined those people who originated from the Indian subcontinent as ‘South Asian’ and those people of White British descent as ‘White British’. These terms are consistent with those used in the harmonised ethnic group output classifications (ONS 2011).

Given that the populations of many developed countries are becoming more diverse and acknowledging the importance of understanding and reducing health disparities, identifying the factors that may hinder PA uptake and adherence, and understanding the differences, are important steps to developing appropriate, feasible and effective PA interventions. The aim of this study was to explore the reported barriers to PA uptake and adherence among the UK SA and White British older people in their 60s.

## Method

### *Design*

We used an exploratory qualitative approach, underpinned by naturalistic inquiry, to explore older adults' beliefs related to PA initiation and adherence. This approach seeks to study individuals within their natural settings and recognises that reality is not fixed, but is an individual's perception (Lincoln and Guba 1985). This paradigm provides a constructive approach to accessing individual experiences; builds on participants' perspectives and understanding of their own social world and the cultural factors, rules or norms which affect their lives, and ultimately their health (Lincoln and Guba 1985).

Ethical approval for the study was obtained from the relevant NHS research ethics committee; informed consent was secured from all the participants. All consent forms and study information sheets were translated as relevant for SA participants and local interpreters were used during focus groups and interviews.

Local interpreters were used for linguistic accuracy and fluency, as linguistic diversity can exist within communities, and dialects can vary between areas (Chiu and Knight 1999). Three local interpreters were used to interpret, translate and assist with the facilitation of group and individual interviews. Interpreters were used for all five SA focus groups and for 15 out of the 17 interviews.

### *Participants and recruitment*

Older adults were initially purposively sampled from a period of fieldwork observation to identify participants with different experiences of PA. Fieldwork observation was undertaken in a variety of groups run by statutory authorities (e.g. Local Authority leisure centres), voluntary organisations (e.g. Age UK), as well as informal social groups (e.g. working men's, women's and walking groups).

Purposive sampling was useful in ensuring variation and diversity of the sample in terms of having different experiences of participation or non-participation in PA (categorised as (1) active, (2) less-active or (3) sedentary based on self-reported PA using DH guidelines (DH 2004, 2009)) – Table 1; ethnicity and gender to acquire a full range of attitudes and beliefs about PA uptake and adherence.

Subsequent sampling was driven by the emerging themes. The sample size was determined by theoretical data saturation that is, when no new information emerges from the data, or there is redundancy in the themes or patterns in the data (Morgan 1996).

Initially, older adults were recruited to focus groups to assess the variations of attitudes and beliefs held about PA and to highlight consensus and dissent on these

Table 1. Categorisation of activity levels\*.

Activity levels	
Active	Undertaking 30 minutes of moderate intensity PA five or more times per week
Less active	Undertaking more than 30 minutes of moderate intensity PA a week but less than 30 minutes of moderate intensity PA five times per week
Sedentary	Undertaking less than 30 minutes of moderate intensity PA a week

\*Based on self-reported PA using DH guidelines (DH 2004, 2009, 2011).

issues. In-depth interviews were subsequently conducted to accommodate older adults who were not necessarily a part of formal exercise and/or PA groups, or those who did not feel happy to speak in a group collective.

### ***Data collection and procedure***

#### *(i) Focus groups*

Participants were allocated to focus groups based on differing experiences of participation or non-participation in PA and on geographical location. Each focus group included 3–12 participants and was facilitated by a single moderator (MH), except the SA focus groups, where an interpreter was also present. In order to respect cultural preferences, participants were offered and chose their preferred group or individual interview. Hence, the SA focus groups were divided into male and female groups. The White British focus groups were generally mixed gender.

The discussion guide was developed by the primary researcher (MH) to explore factors influencing PA uptake and adherence. Focus groups were conducted in a manner consistent with recommendations by Krueger and Casey (2000). The facilitator/interviewer clarified the meaning of exercise and PA using Caspersen, Powell, and Christensen et al's (1985) definition at the start of the group discussion. Typical key questions for focus groups asked participants to talk about their own personal meaning of exercise and PA, how they differ and the facilitators and hindering factors, to undertaking and maintaining exercise and PA. Focus groups were conducted until the data reached a point of theoretical saturation.

#### *(ii) Interviews*

Whilst focus groups provided some insights into the social and cultural processes involved, it is known that participants may exaggerate, minimise or even withhold experiences depending on the social context of the focus group (Hollander 2004), for example, where less-active participants were among a largely active group. Therefore, a more individual, in-depth approach to understanding these issues was required, as well as being able to accommodate older adults, who were not a part of formal PA groups or those who did not feel happy to speak in a group collective. **Hence, in-depth** individual interviews lasting between 60–90 minutes were conducted until a point, where theoretical saturation was reached.

At the beginning of the interviews, the facilitator/interviewer clarified the meaning of exercise and PA using Caspersen, Powell, and Christensen et al's (1985) definition. Typical questions for individual interviews varied little from the focus group discussion guide, but included questions exploring individuals' beliefs about ageing, exercise and PA. Individual interviews were used to check emerging ideas and themes as they developed throughout the course of the study. This form of ongoing or emerging design is a key characteristic and well described inductive research process (Gbrich 1999).

With participants' consent audio-recorded focus groups and interviews were transcribed verbatim; focus groups and interviews that were conducted in Gujarati, Punjabi or Urdu were translated and transcribed into English by the interpreter. The audio-recording and transcription were then given to another native speaker

(a multilingual link-worker), to assess the accuracy of transcription provided by the original interpreter and agree on a 'correct' version of the text to ensure the validity of 'correct' interpretations before any data analysis could take place (Esposito 2001).

### ***Data analysis***

Data analysis used Framework (Ritchie et al. 2003) – a systematic approach, which summarises data into thematic charts. Framework analysis is suited to applied qualitative research studies, particularly in health care, that has specific questions and a priori objectives, such as identifying perceived barriers to initiating PA (Srivastava and Thomson 2009). Data analysis and collection were undertaken contemporaneously. ATLAS/ti was used to assist data coding, cross-referencing, storage and retrieval.

Framework analysis has five stages: familiarisation – becoming immersed in the data; developing a thematic framework – identification of key themes; indexing – systematically tagging key issues; charting – devising a series of thematic charts based on the data; mapping and interpretation – looking for patterns and explanations. During analysis, group and individual interview recordings were repeatedly listened to and transcripts read thoroughly to achieve immersion in the data (familiarisation). Initial recordings made by the first author during the observation period were placed into broad descriptive categories relating to the group and types of people involved, places and activities; analysis focused on attitudes and beliefs relating to initiating and maintaining activity. This process formed the start of developing a thematic framework, where key themes and sub-themes were identified. The first author then met with other members of the team, who had also coded these data independently. Through discussion, an indexing scheme was developed together. During the second stage, key themes were identified by indexing at the side of the transcripts of each group or interview transcript. Themes were subsequently compared and contrasted within and across the data. As no systematic differences were observed between the views expressed in focus groups and interviews, the data were pooled in the final analysis. The framework was then systematically applied to all the data (indexing), concurrently modifying and refining the framework to maximise the grounding of the framework in the data. Key themes were drawn across for same group respondents from focus groups and interviews; for example, SA participants themes were analysed together. This was accomplished by using the constant comparative method and then cross referencing. The process of constant comparison is considered necessary in the development of trustworthy analysis of the data and retaining an analytic stance when processing data (Denzin and Lincoln 2000). Practically, this was performed by making margin notes on the transcripts, which drew attention to both similarities and differences in the data and enhanced sensitivity to findings in the study. Thematic charts were then devised with indexed data entered into appropriate cells (charting) to establish connections across themes and to develop a coherent understanding of the data. Charts were shared and discussed with the research team to identify, explore and interpret the data and to enable comparisons and development of explanations grounded in the data (mapping). Attention was paid to the identification and exploration of any differences between samples from the UK SA and White British participants at this stage.

Respondent validation was conducted with some of the focus group and interview participants, where possible, as a means of validating the analysis by



asking those studied to judge the adequacy of the researcher's analysis to ensure that it was believable, trustworthy and credible (Lincoln and Guba 1985). However, methodological critiques suggest that this is not necessarily an appropriate means of validation (Murphy et al. 1998). Hence, where respondent validation was possible, it was useful to assess levels of agreement on the analysis, but not imperative. Pragmatically, the focus group could essentially be seen as having integrated membership checking, and the decision to move on to another method (in-depth interviews) has elements of member checking/validation.

### ***Methodological credibility***

Credibility denotes the extent to which the researcher's conclusions are supported by the people involved in the research (Denzin and Lincoln 2000), or through the presentation of trustworthy accounts of 'the others' experience (Gbrich 1999). In this study, this was achieved through informal conversations with participants and interpreters during observation, group discussions and interviews, ensuring that the researcher was led and not leading the process of investigation. Regular meetings with the research team were held throughout fieldwork and analysis, which assisted in this process. During these meetings, the context of the data collection was discussed and the team jointly reviewed a number of transcripts to enhance theoretical sensitivity, uncover any biases and assumptions, and clarify interpretation of the data. The coding of the data was also reviewed by the research team on a regular basis. This type of peer-debriefing enhances the credibility and dependability of the analysis, whilst also preventing the researcher from identifying too closely with older people's perspectives and losing sight of other perspectives. Hence, alternative explanations were explored and negative cases identified, and analysed in an attempt to examine the reasons for the differences that emerged.

### **Results**

Fifteen focus groups and 40 interviews were conducted. Tables 2 and 3 provide the demographic characteristics of focus group and interview participants respectively. SA participants were all first generation migrants to the UK and had lived in the UK between 8 and 45yrs.

Analysis revealed three themes: intrapersonal factors, interpersonal factors, institutional and community factors. An exploration of these dimensions is provided below. The quotations used were selected from focus groups and interviews for their descriptive relevance and representativeness. Quotations are presented with participants' unique identifier, with 'I' indicating interview; 'FG' indicating focus group; ethnicity; age; gender and activity level.

#### ***Intrapersonal factors***

Unlike active participants, who were achieving and maintaining recommended PA levels, sedentary and less-active respondents, from both ethnic groups, described a range of personal medical conditions affecting their health. These medical problems reportedly had considerable impact on their ability to perform PA, resulting in activity restriction for fear of increasing their symptoms. Despite believing that PA

Table 2. Participant characteristics from focus groups.

	Gender n (%)				Born in UK	Religion	Educational background	Self-reported falls in last year n (%)	** Self-reported medical history n (%)	Age (years)	
	n	M	F	*Level of activity n (%)						Mean	Range
European	58	15 (24)	44 (76)	Active = 24 (41.4) Less active = 26 (44.8) Sedentary = 8 (13.8)	58	58 Christian	NF 0 SE 58 TE	7 (12.1)	27 (46.6)	65.41	60–70
South Asian	29	16 (55.2)	13 (44.8)	Active = 14 (48.3) Less active = 12 (41.4) Sedentary = 3 (10.3)	0	7 Hindi 22 Muslim	NF 18 SE 10 TE 1	2 (6.9)	19 (65.5)	66.1	60–70
Indian	7	4	3	Active = 4 (13.8) Less active = 3 (10.3) Sedentary = 0 (0)	0		NF 8 SE 6 TE 1	0 (0)	3 (43)	66.9	60–70
Pakistani	22	12	10	Active = 10 (45.5) Less active = 9 (40.9) Sedentary = 3 (13.6)	0		NF 10 SE 4 TE 0	2 (9.1)	16 (72.7)	65.8	60–70

\*Using DH guidelines of regular activity (DH 2004) and adding a less active category.

\*\*Those reporting a history of MI, angina, osteoarthritis, rheumatoid arthritis, hypertension, asthma.

Educational background: NF – No formal education; SE – Secondary education; TE – Tertiary education.

Table 3. Participant characteristics from interviews.

	Gender <i>n</i> (%)			*Level of activity <i>n</i> (%)	Born in UK	Religion	Educational background	Self-reported falls in last year <i>n</i> (%)	** Self-reported medical history <i>n</i> (%)	Age (Years)	
	<i>n</i>	M	F							Mean	Range
European	23	9 (39.1)	14 (60.9)	Active = 10 (43.5) Less active = 9 (39.1) Sedentary = 4 (17.4)	23	23 Christian	N 0 SE 20 TE 3	4 (17)	9 (39)	64.83	60–70
South Asian	17	7 (41.2)	10 (58.8)	Active = 8 (47.1%)  Less active = 4 (23.5) Sedentary = 5 (29.4)	0	4 Hindi 12 Muslim 1 Sikh	NF 11  SE 6 TE 0	1 (5.8)	15 (88.2)	65.2	60–70
Indian	6	2	4	Active = 4 (23.5) Less active = 2 (11.8) Sedentary = 0 (0)	0		NF 3 SE 2 TE 1	0 (0)	4 (66.6)	64.8	60–70
Pakistani	11	5	6	Active = 4 (23.5) Less active = 2 (11.8) Sedentary = 5 (29.4)	0		NF 8 SE 3 TE 0	1 (9.1)	11 (100)	65.5	60–70

\*Using DH guidelines of regular activity (DH 2004) and adding a less active category.

\*\*Those reporting a history of MI, angina, osteoarthritis, rheumatoid arthritis, hypertension, asthma.

Educational background: NF – No formal education; SE – Secondary education; TE – Tertiary education.

could bring potential physical benefits, participants with actual and perceived medical conditions reported a reluctance to take part in PA. Furthermore, anxiety and the fear of '*what may happen*' to them inhibited PA even if they had reportedly been previously active adults:

I know that I should keep myself fit by walking, brisk walking and everything but I can't do it. If I tried to walk with my blood pressure I get dizzy (I30: SA female, 67yrs: Less-active).

I just take my time because I'm frightened of my back or my knees going and you are aware that you have to be careful, it's not that I don't want to do it. (I23: White British female, 63yrs: Sedentary)

Hence, despite reporting positive beliefs about the potential health benefits of remaining active, undertaking PA became less important. Similarly, pain was a frequently reported limiting factor resulting in reluctance to exercise and restricting activity. Participants reported intrapersonal conflicts when the desire to exercise competed with perceived restrictions, contributing to low mood and frustration:

I feel angry. Frustrated because I can't do it [PA]... If I would be healthy and fit I would walk more then what I'm doing but it's too much pain. (I35: SA male, 68yrs: Less-active)

Less-active and sedentary participants made links between poor health, a loss of self-confidence and a lack of belief in their own physical ability to complete PA routines. Their lack of self-confidence was reportedly related to fluctuations in their physical state, which could lead to feelings of frustration, anger and disappointment:

My views haven't changed but I have changed. I just can't do it [PA] like I did before... I think retirement is the time to do things that you couldn't do when you were working... that is what has annoyed me, because now I have finished work, I can't do what I wanted to do. (I23: White British female, 63yrs: Sedentary)

Hence, progressive worsening of general health and functional mobility reportedly placed further restrictions on undertaking PA and led to a more sedentary lifestyle. However, other less-active and sedentary participants were unaware and/or lacked knowledge of the potential benefits of exercise for chronic and degenerative illness. Even among more active older adults, there was a lack of understanding about the frequency (how often), duration (how long) and intensity of activity required to maintain and improve their health:

Do I need to do more exercise? This is what I ask myself.... I do all the housework every day. (FG9: White British male, 65 years: Active)

Misunderstanding about the benefits, frequency, duration and intensity of PA required is clearly a barrier to achieving health benefits. The UK SA older adults' beliefs were not dissimilar to those of White British participants, and perceptions were similar between men and women in this area.

Some participants, from both ethnic groups, believed they were too old to benefit from exercise and were, therefore, not motivated to undertake PA. 'Slowing down'

can be seen as a natural part of ageing (Tierney et al. 2011), consequently older adults may be unmotivated to exercise. Whilst others failed to increase their activity levels despite believing that people were never too old to exercise. In these instances, it was the perceived belief about their health status in being capable of performing PA, and not age, that was the limiting factor.

The fear of falling was reported less often as a barrier to regular PA among both ethnic groups. For those who had fallen previously, the fear of falling reportedly made them feel anxious about how much PA they could undertake safely:

By falling it has frightened me and that prevented me going to do exercise because I think I might fall again. (I31: South Asian female, 62yrs: Sedentary)

For others, the fear of falling appeared to be connected to the pain they experienced when performing simple PA, such as walking. In many cases this reinforced their reluctance to undertake PA:

I do feel uncomfortable. I feel like I might fall with my aches and pains. I have to stop and walk slowly . . . If I try to walk fast or anything I feel that I might fall down. I might lose my balance . . . (I35: SA male, 68yrs: Less-active)

The fear of falling was linked to a lack of confidence in their balance, a lack of strength and gait problems. However, some managed to accommodate this fear by using aids and performing seated exercises:

. . . if I was stood up doing exercises I would be frightened of falling over. If I had hold of a chair I would be alright . . . It's just I feel so vulnerable without anything to hold on to. (I23: White British female, 63yrs: Sedentary)

It is evident from these quotations that the fear of falling can be a barrier to initiating and/or maintaining PA. Frail older adults, and those who have fallen previously, believed that PA would increase their likelihood of falling, which resulted in activity avoidance and lead to more sedentary behaviour.

A lack of motivation was reported to be a major barrier to initiating PA among some sedentary and less-active participants. This appeared to be more apparent among women:

I haven't got any will power. That's the biggest thing. (I31: SA female, 62yrs: Sedentary)

I would just rather sit and chat to my husband and watch television . . . I just can't be bothered. It just never enters my head . . . (I14: White British female, 61yrs: Less-active)

Although undertaking regular PA can reduce functional decline, improve health and well-being, and alleviate and control the symptoms of chronic diseases (Phillips et al. 2010), it is clear that simply being aware of the importance of PA is not enough to motivate older adults to either uptake or maintain regular PA. Whilst these intrapersonal factors are important in understanding the barriers to the uptake and adherence of PA, they are mediated by interpersonal factors.

***Interpersonal factors***

Support from family, peers and healthcare professionals was considered essential in maintaining a physically active lifestyle. Peer and professional support helped some older adults to take-up PA whilst a lack of support was a barrier to initiating and/or maintaining PA:

I would never go on my own . . . I would never set off and say I'm going to do an exercise class. I would always need somebody to go with. (I10: White British female, 62yrs: Less-active)

This demonstrates the importance of social support as a facilitator to increasing PA. However, the 'wrong' type of support could also have a de-motivating effect and discourage older adults from initiating PA as the following quotation implies:

. . . some people try to push you into it without going into why you don't want to do it. If it's explained why . . . straight away I could see that it was going to make me better. (I1: White British male, 65yrs: Active)

For those with limited functional ability, instrumental support in terms of transport was also discussed as a limiting factor to undertaking PA:

Sometimes I don't have the strength because of the pain in my legs. If I could get transport it would help. (I35 SA male, 68yrs: Sedentary)

Absence from formal or informal group activities for a short period of time resulted in a loss of momentum and routine in undertaking exercise. Subsequently, participants reported difficulty in recommencing PA regimes:

. . . because we go away a lot, and when I get back I can't get back into the swing of things. (I7: White British female, 69yrs: Less-active)

Likewise, the practicalities of being a grandparent or caring for a family member had a direct impact on ability to maintain PA. This was particularly apparent among women:

. . . this is the only day that I get to do something for myself. I always really try, but I have missed [exercise class]. I did miss because mum was sick . . . I had to go live with her so like I couldn't come here. (FG1: White British female, 60yrs: Less-active)

Hence, the lack of both formal (professional) and informal (peer) social support deterred some participants from engaging in and maintaining their activity levels. Lack of functional social support (for example transport) became an additional barrier. Personal responsibilities (such as family caring duties/responsibilities) were another barrier to maintaining regular PA, particularly where the exercise required formal sessions or timings. This was predominantly seen as a barrier among women.

Prior to migration, many SA participants in this study came from agrarian background, which had an impact on their knowledge, attitudes to PA and beliefs during older age. On settling in the UK, work, supporting the family and other family responsibilities took priority, leaving little or no time to perform PA:

Participant 7 (SA male, 70yrs: Active): ...these people are mainly from farming clan in India and there they have a lot to do such as bending, carrying, cropping etc. It is the environment and the culture that you don't really have time or know about exercise. There is too much to do. (P3: yeah)

Participant 5 (SA male, 70yrs: Active): And then I worked in a factory when I came to this country and had family responsibilities, such as wife and children. I had no time to exercise. (P1: yeah)

Participant 4 (SA male, 68yrs: Less-active): Yeah, I have a lot of family responsibilities and to look after my wife and everything...no time for exercise.

Consequently, PA routines were never developed or thought about in terms of improving health and functional capacity among these SA participants. Additionally, lack of fluency in English acted as a further barrier to knowing about and locating accessible opportunities and following instruction in group exercises:

I had to ask about the walking group and mobility because I had heard about it from friends. I don't speak English well and therefore the language was a barrier until the Cultural Community Centre was developed. (FG15: SA female, 60yrs: Less-active)

These interpersonal factors are important in understanding the barriers experienced by older adults in taking-up and increasing their PA levels. However, institutional and community factors can act as contributory barriers.

### ***Institutional and community factors***

Institutional and community factors could shape activity levels. For example, the preferred types of exercise were not available at suitable times and locations:

One day I don't think is any good [at the gym]. It should be a continuous thing all week round...I will get the benefit out of it...You go one day, what is the benefit? You are sat at home six days a week. (I35: SA male, 68yrs: Less-active)

Well half of it was going round on the weights, which I hated and the other part was sort of on the machines...I didn't mind that but I hated all the weights and things. (I10: White British female, 62yrs: Less-active)

Obviously, self-motivation is important in performing activity of any kind, and travel distance is just one consideration in a list of possible reasons (or excuses) why older adults may not perform PA on a regular basis:

...once a week we did chair aerobics...and I loved it...But we had to stop it for something to do with insurance...So once that stopped, it stopped. It was here, on the premises, it was easy to get to and I really enjoyed it, and again the laziness comes in, if it's put in front of me I'll do it. (I5: White British female, 67yrs: Less-active)

Even when access to facilities was relatively easy, minor changes in the location sometimes became a barrier to attending group-based sessions:

The ladies gym has moved upstairs now and I can't manage the stairs. There is a lift but I am scared of them. (I31: SA female, 62yrs: Sedentary)

The design, distance and location of activities within leisure facilities, as well as the type and perceived lack of variety and choice of activity, were often reported as barriers to participation in planned exercise, particularly among women. In addition, once contact had been established, a lack of specific individual advice and support from service providers could act as a further barrier.

The observance of prayer can conflict with scheduled timing of activities. Furthermore, the religious practices of some groups, such as fasting, could be a barrier to PA, particularly at times of religious festivals. For example, during the month of Ramadan, it was more difficult, particularly for women, to maintain activity levels, as most people fast and do not drink during daylight. To do any PA, particularly exercise, during Ramadan was considered dangerous. In addition, the religious practices of participants requires leisure care providers to have insight into these issues as some SA women reported difficulty resuming exercise after the end of religious festivals:

Participant 1 (SA female, 61yrs: Less-active): Religious festivals make it difficult as we tend to fast (P2 and 3: yeah). We feel weak and we can't drink, so it's no good to exercise

Participant 4 (SA female, 64yrs: Less-active): That's right and its Ramadan soon (P2: yeah).

Participant 3 (SA female, 60yrs: Active): Ramadan, is now for the next 4 weeks. It will be difficult to start again [exercise].

This demonstrates the significance of leisure care providers having an understanding of the importance of timing of PA sessions around religious events to enhance and encourage attendance. Although there are no cultural or religious restrictions prohibiting PA, for Muslim women, religious beliefs about gender segregation and concerns about modesty presented a barrier to attending PA groups. Gender segregation was possible at most locations, although there were variations in facilities offered and a lack of understanding about the need for culturally sensitive facilities:

I was given "Fitness for Life" by the Doctor... I asked a friend... She said it was a mixed session and told me about X [Ageing Well Co-ordinator] because I didn't want to exercise in mixed sessions. (FG15: SA female, 60yrs: Less-active)

Whilst gender segregated groups for SA women is a potential facilitator to initiate and maintain activity, the absence of culturally sensitive facilities could become a barrier if planning was not thought through.

It has been widely assumed by community services that SA women live with extended families or have family members nearby (Carroll et al. 2002). However, some SA women were not living in traditional forms of extended families nor did members of the family live nearby. A minority of these women were living alone and they liked the idea of attending group activity, mainly as a means of socialising:

I feel better going there because you do exercise and meet people, talk to them. Feel better... both health and meeting people because it's a lot of worries, you know, go out of mind when you meet people and talk to them. (I40: SA female, 62yrs: Sedentary)



Although 'exercise on prescription' (EOP) initiated some older adults to take up exercise, the short-term nature of the prescription did not promote exercise in the long-term:

I mean quite a few years ago I got a referral from the doctors to go to Fitness for Life, and they stop it. They give you so long and then they stop it. Now perhaps if that had carried on, I might have carried on. (I10: White British female, 62yrs: Less-active)

Exercise on prescription schemes may not encourage long-term adherence to an exercise programme, unless there is support given to transition into other services. This finding replicates those of Harrison et al. (2005) and Lamb et al. (2002). Additionally, EOP schemes do not appear to be sensitive to minority group needs (Carroll et al. 2002).

Safety concerns regarding the physical environment also influenced decisions about performing PA on a regular basis, as well as the type of activity people wished to do:

Interviewer: What doesn't help you to continue to exercise or take regular PA?

Participant 6 (White British female, 63yrs: Less-active): ... the safety because I'd love to walk along the canal bank but I daren't (fear of crime) (P3: yeah).

Participant 2: (White British male, 70yrs: Active): Yeah and I like cycling, but the traffic on the roads puts me off ... it's not safe ... and I am quite fit and I enjoy it, but not on the roads.

Participant 8 (White British female, 60yrs: Less-active): ... No, it isn't safe is it? (P3 and 8: yeah)

This excerpt from a focus group discussion demonstrates how the context in which PA occurs needs to be taken into account when planning activities and services for older adults.

## Discussion

Essentialist discourse infers unchanging characteristics to ethnic group members, exaggerating differences and underestimating similarities between groups. This study has found that there are shared characteristics and cultural practices across these ethnic groups. There were also similarities in the perceived barriers to uptake and adherence given by the UK SA and White British participants, which serve to limit essentialisation of SA older adults. However, there were some specific issues for SA participants. Acknowledging internal differences that can exist within ethnic groups is important. If these internal differences go unrecognised it may discourage uptake and subsequent adherence of PA programmes for older adults. For example, for SA participants, barriers to PA were reported to be related to lack of fluency in English, which impeded/restricted participation and attendance in PA programmes. In addition migration affected SA participants' knowledge of PA. Religious festivals and practices also affected their ability to maintain regular attendance and participation in PA at key times in the calendar and have been highlighted in previous literature (Rogerson and Emes 2006; Sriskantharajah and Kai 2006).

Therefore, service providers need to recognise that PA programmes may need modification during Religious festivals and look at measures to ensure re-uptake after a period of not doing exercise.

Muslim women were deterred by mixed-gender activities provided at leisure centres due to their own or family concerns over modesty and gendered norms. Furthermore, the religious practices of Muslim participants, such as fasting, could become an added barrier to activity. Other studies reflect similar findings and suggest that Sikh men also have difficulties with mixed gender activities (Johnson 2000). Hence, to ensure participation of ethnic and religious minority groups, suitable facilities congruent with their practices and beliefs need to be developed (Horne et al. 2012).

People's cultural differences might not be a barrier in itself, but how these differences are perceived by healthcare practitioners. Cultural stereotypes can influence the attitudes and behaviours of healthcare professionals, where there is a tendency to treat all minority ethnic groups the same (Owens and Randhawa 2004; Vydelingum 2006). For example, mental healthcare professionals were found to construct cultural difference in terms of fixed and immutable categories with knowledge constructed on western stereotypes of culture (Burr 2002). Such stereotypes can become incorporated as 'fact' and have the potential to lead to ethnocentric practices, misdirect diagnosis, care and treatment (Burr 2002; Vydelingum 2006). Hence, healthcare practitioners need to be aware of the variation of experience within minority ethnic communities and be mindful that culture is complex and not something that is fixed and immutable.

Significant differences have also been found in communication style and behaviour during medical consultations between ethnic minority and White patients (Johnson et al. 2004; van Wieringen, Harmsen, and Bruijnzeels 2002). For example, consultations with non-Western immigrant patients were over two- minutes shorter and there was more exchange of information on lifestyle issues in Western patients (Meeuwesen et al. 2006). Therefore, it is important that healthcare providers recognise and are responsive to differences in attitudes, behaviours and communication style during encounters with diverse ethnic groups (Betancourt et al. 2005). These differences influence how health promotion messages are perceived and interpreted, as well as affecting the ability to provide specific individual advice and support. Hence, healthcare professionals need to recognise the importance of communication and nuanced behavioural differences among diverse ethnic groups to facilitate uptake and adherence to PA.

There are some study limitations. First, we depended on self-reported levels of PA, which could be either under or overestimated (Harada et al. 2001). Second, the study did not take a longitudinal approach to identifying barriers to uptake and adherence of PA over the life course. Hence, we are unable to provide evidence of how events over the life course pattern PA in later life. This is relevant in terms of ethnicity and social position, as the accumulation of disadvantage over the life course (Karlsen and Nazroo 2006) has not been taken into account. Third, many of the reported barriers to uptake and adherence of PA were found to be consistent between these ethnic groups. The similarities seen may be a result of the specific groups who attended focus groups and interviews. The findings nonetheless indicate that healthcare professionals need to be aware of older adults' perceptions about undertaking PA when comorbidities are present, explore with older adults how to overcome the barriers and promote the benefits of undertaking some form of PA, even in the presence of

physical illness. Programme planners need to be aware of the specific cultural barriers and scheduling issues of programmes provided and improve outreach work to establish PA programmes in community settings. This will help to develop culturally sensitive health promotion initiatives that address inequalities in PA.

Future research will need to investigate how to involve older adults from ethnically diverse groups in regular activity, and address the heterogeneity within SA groups who may have may have differing concerns about barriers to increasing their PA levels. However, the findings presented here begin to address this important and under-researched area.

The findings of this study are important, because they draw attention to the similarities between SA and White British older adults, decreasing essentialistic views that ascribe ethnicity as the fundamental causal factor in poor uptake and adherence to PA. However, the findings also highlight some specific considerations that need to be addressed to encourage and promote uptake and subsequent adherence to PA among older adults, as well as acknowledging that there are a number of structural and organisational issues that go beyond language or culture, which can also influence uptake and subsequent adherence to PA.

### Key messages

- (1) The reasons why people in their 60s fail to take up exercise are complicated and multifaceted.
- (2) There are some obvious failings in information giving about the value of exercise particularly for those with ongoing healthcare problems and misconceptions about the value of exercise in later life that needs to be addressed by healthcare providers.
- (3) Family support, instrumental support and the design of sessions needs consideration if services are going to attract people in this age range into exercises facilities.
- (4) Cultural sensitivity is needed when providing services to ethnic minority communities. PA programmes need to address specific expectations and beliefs if they are to be successful. For example, recognising that the programme may need modification during Ramadan and certainly needs measures to ensure re-uptake after a period of not doing exercises whether that be due to Ramadan, Diwali or Christmas.

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