Cultural influences on adherence to cardiac rehabilitation programmes: South Asian healthcare professionals' perspectives

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Abstract

Background

Health disparities concerning uptake of and adherence to cardiac rehabilitation (CR) post-myocardial infarction (MI) have been observed in South Asians. Healthcare professionals from a South Asian background can provide insight into the influential cultural factors affecting CR adherence in South Asians.

Aim

The aim of the study was to explore cultural factors impacting on South Asians' adherence to CR post-MI from the perspective of South Asian healthcare professionals.

Methods

A qualitative thematic approach using semi-structured interviews was employed with 15 participants (8 males and 7 females) recruited from various national primary healthcare settings. The participants were from a range of professions including a general practitioner (GP), nurse, surgeon, physiologist, cardiologist, and pharmacist.

Findings

Four themes were identified from the interviews: (1) familiarity: influence of practitioners' own cultural background, (2) Western vs Eastern medical philosophy: generation and gender influences, (3) engaging with existing services: changing patients' attitudes and perceptions and (4) modifying doctor-patient communication:

encouraging patient responsibility. All themes related to health beliefs South Asian patients were perceived to hold.

Conclusion

Prior work has suggested the need to tailor health services to South Asian patients' needs. However, the focus should simultaneously be on changing these patients' perceptions of their own health and to consider providing outpatients with the support to develop the necessary skills to implement lifestyle changes towards improving CR uptake and adherence. Cultural competency training may be useful for all healthcare professionals involved in CR, including those of allied professions, to support them in providing more effective care to South Asian patients.

Keywords

Cardiac rehabilitation, adherence, culture, South Asian, qualitative

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Conflict of interest statement

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Background

Coronary heart disease (CHD) is the leading cause of death in Europe, accounting for almost more than half of deaths in the continent (Townsend et al. 2022). CHD is the most prevalent form of cardiovascular disease (CVD). Although there are currently no known treatments for CHD, adopting a healthy lifestyle, which includes regular physical activity and a healthy diet, can slow the course of the disease and reduce the risk of future heart-related events (Khera et al. 2016). South Asians who have migrated to North America and Europe have a 50% greater risk of developing CHD than natives of European countries (Bhopal et al. 2002; Tillin et al. 2005; Cainzos-Achirica et al. 2019; Pursnani and Merchant 2020; Wang et al. 2020). South Asians make up the largest ethnic minority group in the United Kingdom (UK), accounting for 7.5% of the total population (Official for National Statistics 2011). In modern definitions, South Asians are typically from countries in Southern Asia, such as India, Pakistan, Bangladesh, Nepal, Maldives, Afghanistan, Bhutan, and Sri Lanka (Southern Asia Population, 2022). However, according to the UK Census, Indians, Pakistanis and Bangladeshis, make up the majority of South Asians in the UK (Sri Lankans are often grouped with Indians in epidemiological studies) (Official for National Statistics 2011).

South Asians experience adverse effects of CHD at an earlier age (< 40 years) (Bhopal et al. 1999) and mortality rates resulting in acute myocardial infarctions (MI) occurring 5-10 years earlier than in Western populations (Ajay and Prabhakaran 2010). This is due to the presence of cardiometabolic risk markers (CRM), such as abdominal obesity and insulin resistance (Gupta et al. 2006; Vanuzzo et al. 2008). A greater tendency for South Asians to suffer from poor health outcomes for CHD can also be explained by lifestyle and socioeconomic factors (Lean et al. 2001; Darr et al. 2008; Beaglehole and Horton 2010; Jain et al. 2017). Patients with CHD are at an increased risk of a future cardiac event due to the insufficient management of risk

factors, and the failure to modify lifestyle choices following MI (Kotseva et al. 2018). Subsequently, identifying the factors contributing to poor management of CHD in South Asians would help develop more effective long-term management strategies.

CHD patients require a multidisciplinary approach in the form of cardiac rehabilitation (CR) involving diet, physical activity, education, psychological support, drug therapy, and counselling to promote healthier lifestyle changes, decreasing readmissions to the hospital and improving quality of life (Doherty et al. 2017). Several randomised and large-scale clinical trials have demonstrated the potential benefits of CR programmes, including a reduction of mortality and cardiac events and positive psychological and social outcomes (Oldridge 1988; O'Connor et al. 1989; Zhang et al. 2018; Mansilla-Chacón et al. 2021; Novaković et al. 2022). The National Institute for Health and Care Excellence (NICE) in England recommends that all MI patients are referred to a CR programme before they are discharged from hospital (Jones et al. 2013). NICE recognises the importance of behaviour modification in managing and treating CVD in these patients. However, some ethnic groups, particularly South Asians, are disproportionately underrepresented and among the least likely to enrol in CR programmes, when they are most likely to benefit from these (Tod et al. 2001; Mochari et al. 2006; Banerjee et al. 2007; Galdas and Kang 2010; Nanayakkara et al. 2021).

CR participation rates among patients from ethnic minority backgrounds have declined by 11% compared to White British; South Asians make up the majority in that group (British Heart Foundation 2021). Studies have indicated that South Asians engage in CR programmes at a lower level, and their attrition rate is higher than that of their White Europeans (Jolly et al. 2004). For example an audit of CR among South Asian cardiac participants revealed that only 33% attended CR, and only 21%

attended all sessions (Tod et al. 2001). In another study, South Asian patients reported difficulties completing the CR programme when compared with their White counterparts resulting in low adherence rates (Banerjee et al. 2007). The CR uptake has also been found to differ by gender, with lower rates of participation reported among South Asian women compared to men, as well as by all White participants (Astin et al. 2008; Visram et al. 2008; Chauhan et al. 2010; Galdas et al. 2018). Given the increased prevalence of CHD among South Asians, the low rates of uptake and adherence in CR programmes is concerning for healthcare providers.

Research suggests that South Asian patients are less likely to participate in CR due to psychosocial cultural barriers and that they may not reap the full benefits of the programme (Darr et al. 2008). A UK study found South Asians lacked awareness of their illness, experienced problems with their healthcare, attached great importance to social networks, and viewed health in a fatalistic manner (Chauhan et al. 2010). Other factors contributing to this disparity include a lack of physician referral, inaccessible transport, and cultural-specific barriers to lifestyle modification preventing South Asians and other ethnic groups from participating in CR programmes (Rees 2005). A randomised controlled trial (RCT), which offered 12 culturally tailored CR sessions for South Asian patients (Kuppuswamy et al. 2009), found including culturally tailored measures significantly improved both adherence and quality of life compared to the control group. Dilla et al. (2020) outlined the need for South Asians post-MI to receive culturally appropriate CR, specifically the difficulties they encounter when balancing their individual needs with their religious and cultural beliefs.

Consequently, efforts to understand cultural barriers towards CR may be enhanced by taking healthcare professionals' views into account (Bhopal et al. 2002). Eliciting the views of different types of healthcare professionals who share an ethnic

minority background with their patients may help make sense of the research around balancing cultural practices and beliefs with medical advice. South Asian healthcare professionals make up 10% of the National Health Service (NHS) workforce (Gov.UK 2021). Hence, they are likely to possess knowledge and experience enabling them to understand the barriers South Asian patients face when accessing CR and could offer fresh insight into a cultural framework for practical guidance on tailoring CR; however, research has yet to explore their views. MI patients are initially referred either through a physician or self-referral for CR, a crucial stage where most patients at risk of CHD are first identified (Grewal et al. 2010). Thus, intervening post-MI but pre-CR is potentially beneficial as this critical time period is when patients are most vulnerable; being in denial over one's health issues and lack of understanding around one's diagnosis appear to play a role (Stenstrom et al. 2005). Therefore, the aim of this study was to explore what South Asian healthcare professionals considered to be influential cultural factors impacting on South Asians' adherence to CR post-MI. For the purposes of this paper, CR is used to refer to outpatient settings post-MI.

Method

Study Design

This exploratory qualitative study, conducted using a thematic framework, employed semi-structured telephone interviews. Given the dearth of research on South Asians' participation in CR, an inductive approach from a subjectivist epistemological viewpoint was adopted as it allowed for the meaning of participants' responses surrounding *their* interpretation of 'culture' to be explored in depth via a 'professional interaction' (Kvale 2007). This approach acknowledges that the researcher's interpretation of the results and the research process may be subjective, but is

appropriate for studying cultural factors affecting adherence to CR programmes in South Asians (Prinjha et al. 2020). Ethics approval was obtained from the Research Ethics Committee at the first author's institution, and all procedures were performed according to institutional guidelines. Written informed consent was obtained electronically.

Sampling Strategy

South Asian healthcare professionals were identified through a semi-purposive sampling method. The inclusion criteria for this study were: being of South Asian ethnicity and working in any capacity with South Asian heart patients. Initially, eight participants were recruited independently using an opportunity sampling method based on existing contacts of the researcher. While this method may be deemed biased and unrepresentative, our study required participants with specific characteristics to obtain valuable data (Allmark 2004). Further participants were recruited by using a snowball sampling technique. This method enhanced sample diversity and allowed the recruitment of hard-to-reach populations resulting in the participants reaching out to their colleagues (Sadler et al. 2010). While there is the potential for inconsistency within the sample using multiple sampling methods, employing semi-purposive sampling methods was convenient due to the time constraints faced by healthcare professionals. Participants from different parts of the UK were included in the sampling strategy and interviewed by telephone to maximize credibility and transferability of the findings.

Participants

A total of 15 participants (seven males and eight females) aged 23 - 80 years (mean age = 38) were recruited. Table 1 shows participants' demographic characteristics. Pseudonyms were used and chosen by the participants themselves to maintain confidentiality, in line with their professional responsibilities and to prevent their views from compromising their role.

Data collection instrument

An interview schedule (Table 2) based on existing literature was used as a guide (Tod et al. 2001; Visram et al. 2008; Galdas and Kang 2010; Yohannes et al. 2010; Jalal et al. 2019). An initial interview schedule was piloted with two South Asian healthcare professionals (not included in the final study) with improvements made to ensure clarity and relevance. The schedule consisted of open-ended questions which focused on balancing medical advice with cultural practices. Five key areas were determined through identifying gaps in current literature: (1) background information, (2) knowledge and experience of working with South Asian patients, (3) personal views on modifying lifestyle and on gender-related issues, (4) participants' opinions on current CR practice, and (5) developing an intervention for future CR implementation.

Data collection method

The study was advertised by small organisation in the field of public health, who shared the study details including the contact information across their social networks and other communication channels. Participants were initially contacted by email with information on the study and invited to take part. An online consent form was sent to inform participants of the confidentiality of their interview data as well as their right to withdraw from the study up until the date stated on the form. The interviews were conducted via telephone and ranged from 14 to 28 minutes' duration. Debriefing was

provided via email. Data collection ceased once saturation had been achieved and no new information emerged from interviews.

Data Analysis

FA conducted the interviews and transcribed the transcripts verbatim. All participants were provided with the opportunity to check their own transcripts before analysis to ensure trustworthiness of the data. A six-stage framework (Braun & Clarke, 2006) was applied to derive themes from the data inductively in a flexible manner and address concerns regarding the interpretive power of the data. The first step was to familiarise oneself with the transcripts. In the second step, codes were generated to identify themes. The third step involved identifying themes and focusing on matters relating to the balance between medical advice and cultural practices. At the fourth stage, the themes were reviewed. The fifth stage involved defining and naming the themes in accordance with the data extracts. The final stage involved writing up the themes. All authors then reviewed the coded extracts to establish consistency. The study was reported according to the Consolidated Criteria for Reporting Qualitative Studies (Tong et al. 2007).

Results

Thematic analysis derived meaning and patterns from participants' responses during interviews and allowed insight into the views expressed by the healthcare professionals. The interviews, based on observations in practice, revealed cultural barriers which healthcare professionals felt related to South Asian health beliefs. Four main themes emerged: (1) familiarity: influence of practitioners' own cultural background; (2) western vs eastern medical philosophy: generation and gender

influences; (3) engaging with existing services: changing patients' attitudes and perceptions; and (4) modifying practitioner-patient communication: encouraging patient responsibility.

Familiarity: influence of practitioners' own cultural background

Familiarity was felt to be rooted in ethnicity concordance, potentially improving patient-doctor communication through commonalities and cultural beliefs. Concordance of ethnicity, also referred to as racial concordance, occurs when a patient's race matches that of the physician. Healthcare professionals believed that South Asian patients felt encouraged to disclose information during consultations due to feeling comfortable in the presence of a practitioner who shared their ethnicity. The rapport between patient and practitioner was stimulated by trust which was built through a shared awareness of similar cultural beliefs:

> *They [patients] like familiarity. They would like chance to be able to relate to someone* (Jasmin, Physician Associate)
>
> *Having other people from that same background - someone they can relate to and share the same experience - could go a long way* (Shabana, Physiotherapist)
>
> *If I speak to them in Urdu they are far more forthcoming in asking more questions* (Colin, Physiologist)

Participants felt patients were more likely to take medical advice from a healthcare professional of the same ethnicity due to the authority and influence a healthcare professional of the same ethnicity is likely to have over a patient's behaviour regarding medical advice, as these patients saw them as a 'role model'. A few participants saw

ethnicity concordance as an advantage from a practitioner's perspective which they believed could potentially facilitate consultations:

> *I think definitely have people of the same ethnicity. I think that is a big thing for us [South Asians]* (Anisha, Student Cardiac Physiologist)
>
> *If you are from the same culture yourself you will be able to relate to the patients and be able to give wider view of what's needed* (Natasha, General Practitioner)

Participants felt they had greater knowledge and understanding of how South Asian patients' background and lifestyle habits may influence the way medical advice was received, due to their familiarity with cultural practices. This in turn was seen to facilitate practitioner-patient consultations, allowing for greater rapport to be built and increasing the likelihood of patients' healthcare needs being met.

Western vs Eastern medical philosophy: generation and gender influences

Healthcare professionals described how they believed intrinsic beliefs held by South Asian patients conflicted with accepting Western medical practice and ideology in relation to gender roles. Both were identified as barriers to CR adherence by healthcare professionals. Participants described concerns over mainly the older generation of South Asian patients' perceived reluctance to modify their cultural lifestyle:

> *You've got the older people saying that they've lived for so many years because of their previous desi diet [cultural food]* (Naeil, General Practitioner)
>
> *They have this distrust of medicine which they - at least the first-generation immigrants believe - is Westernised so not indigenous to them, so [this] influences some of these decisions* (Arjun, Surgeon).

Participants felt that these beliefs were a part of a South Asians' daily practices and mainly stemmed from the first generation who had brought their own health beliefs

with them from their home country and passed them down within their families. However, a major concern, especially among female healthcare professionals, were female patients who were considered the most vulnerable to neglecting their health and wellbeing. Participants felt that South Asian women may be conflicted over their cultural practices which resulted in their downplaying of the severity of their health problems:

> *This is the kind of ideology that our Asians, particularly from back home [in South Asia], have where the wife takes care of the husband* (Jasmin, Physician Associate)
>
> *If you are going to invest somewhere to make change in the future, probably working with the ladies would probably be the way forward to make long-term change* (Colin, Physiologist)

The burden of household and family responsibilities which South Asian women prioritised over own health meant their ability to access health care services was both limited and restricted. Accordingly, this barrier was identified by participants as affecting adherence to CR in South Asian female patients.

Engaging with existing services: changing patients' attitudes and perceptions

The quality of healthcare services was not viewed by participants as a major hindrance to engagement of South Asian patients. Healthcare professionals discussed how they felt current practice guidelines were appropriate for working with South Asian patients, but highlighted that attitudes and perceptions of these patients may need to change:

> *I think most of them do [engage] but some of them you know some of their attitudes are wrong, some of the religious ones* (Davood, Consultant Surgeon)

They might be able to find a solution [to facilitate services for South Asians] that's more appropriate to those policies that are already in place (Ayesha, Health Care Assistant)

Within the [South Asian] community changing perceptions is the way forward rather than saying […] that the whole cardiac rehabilitation programme should change to a smaller demographic [narrowly defined] (Colin, Physiologist)

Participants felt that the South Asian population was not adequately equipped to engage with Western healthcare services due to their cultural health beliefs, acting as a barrier. Healthcare professionals discussed how focusing efforts to work on changing South Asian patients' attitudes towards and perceptions of medical advice and accessing health services, acted as barriers towards CR adherence. One participant felt that the healthcare system should

…dedicate more time and resources to actually work with them in order to get them to engage and in turn increase adherence (Zain, Cardiac Physiologist)

[There should be] more support in place to work with the patient and also the counselling and stuff to give them more confidence in what the treatments and what the benefits are of what we doing (Ali, Cardiac Nurse).

Participants suggested that focusing efforts on psychological interventions within CR to work with South Asian patients may be beneficial. This would allow patients to address any concerns or questions with healthcare professionals, potentially increasing confidence in their own ability to adhere to medical advice and to engage with CR services, according to healthcare professionals.

Modifying practitioner-patient communication: enhancing patient responsibility

The fourth theme reflected suggestions made by participants around modifying practitioner-patient communication styles. These included encouraging South Asian patients to take ownership of the recovery of their own health despite the attitudes and perceptions they were perceived to hold around Western medical practices:

> *Taking ownership of their disease. To actually say to them that, do you know a lot of these things are avoidable?* (Raj, Pharmacist)
>
> *If they [South Asian patients] want to improve their lifestyle they would take the doctor advice seriously* (Ali, Cardiac Nurse)

There was a consensus among the healthcare professionals regarding a need to hand responsibility back to patients, in order for them to take ownership of their own health behaviour and adherence to medical advice given to them. A few participants described where education may be a factor influencing South Asian patients' behaviour regarding making behaviour change:

> *If they don't take responsibility for themselves then there aren't going to be any changes. They need understand the effects of it [health condition] and what it means for them and how it affects their body overall* (Shabana, Physiotherapist)
>
> *Medical professionals can only guide the people* (Davood, consultant surgeon)
>
> *Some parents who are better exposed to the local [ie UK] culture are better exposed to local education, they are more proactive in better accessing and seeking treatment* (Dia, Consultant)

Healthcare professionals described that a lack of understanding of the severity of CHD is a crucial problem for South Asian patients. This in turn may change the dynamics

of practitioner-patient communication within current practice, with an emphasis on the patient for them to change.

Discussion

The present study explored South Asian healthcare professionals' views on the influence of cultural factors on South Asian patients' adherence to CR post-MI. The four themes identified were linked to the different health beliefs South Asians were perceived to hold by practitioners who share the same ethnic background such as; Western medical services and gender roles, as well as patients' ability to engage with healthcare services and take responsibility of their own health.

In the UK, ethnic minority patients often report worse experiences with health services than the general population, especially South Asians (Szczepura 2005; Nazroo et al. 2009; Burt et al. 2016; Evandrou et al. 2016). South Asians tend to seek healthcare services more frequently compared to White patients; also, report greater difficulty accessing primary care and often dislike telephone consultations and after-hours medical care (Scaife 2000). Prior studies have examined health outcomes rather than how consultations take place and what facilitates effective communication in a multi-ethnic society (Talen et al. 2008). This study identified ethnicity concordance between practitioner and patient as a perceived facilitator of effective communication. Research has demonstrated improved patient satisfaction in South Asians that are treated by a practitioner of the same ethnicity as opposed to those treated by a practitioner of another ethnicity (Ahmed et al. 2015). Apart from offering greater cultural sensitivity, cultural competency can help with understanding patients' religious and cultural values, which is an important component of ensuring a knowledgeable and informed consultation from the healthcare professional's perspective (Neal et al.

2006). In our study, familiarity was found to be an important facilitator of patient consultations for healthcare professionals. Prior findings indicate that patients are more likely to engage with their doctors if they have an established sense of trust and a familiarity with their ethnicity or language, thereby strengthening the practitioner-patient relationship (Street et al. 2008).

A significant intersection of South Asian patients' beliefs with their acceptance of the 'Western' way of thinking was described in this study. Accepting Western medical practices whilst compromising cultural social norms and values concerning generational differences and gender roles, played an important role in determining South Asian patients' health outcomes. Differences between generations in the way South Asians manage risk factors for CHD are mostly due to cultural health beliefs that discredit Western health beliefs (Kumar et al. 2016). As such, studies have found that older South Asians are reluctant to change their health habits or adhere to medical advice due to concerns over retaining their ethnic identity (Macaden and Clarke 2006). A study of South Asian patients' perception of Western medical advice indicates that the advice provided often conflicts with religious practices and beliefs (Alhomoud et al. 2015). As an example, South Asians are likely to attribute CHD to causes other than established risk factors (Jalal et al. 2019). Moreover, in a UK study, South Asians believed that their diet had been passed down for generations and that their ancestors did not struggle with CHD (Farooqi 2000). Thus, in Eastern philosophical perspectives traditional diets do not pose a risk to CHD. Consequently, South Asians often encounter conflict between cultural norms and Western concepts of good health.

Furthermore, female healthcare professionals in our study considered female South Asian patients to be the most vulnerable to not engaging in CR and not adhering to medical advice. South Asian women, particularly older generation women, are

influenced by strong family networks, family responsibility, and inadequate social support when adherence to cultural and social norms is prioritised over their own well-being (Kabir et al. 2003; Fikree and Pasha 2004; Visram et al. 2008). A study examining the differences in family support for managing CHD between Caucasian and South Asian CR patients found that food preferences were dictated by the male head of the household (Astin et al. 2008). Moreover, this illustrates a pattern in catering to the health and priority needs of the husband before the needs of the wife. As one of the risk factors for CHD management, this would account for the challenge in modifying dietary behaviours for South Asian women in particular. Similarly, in terms of other risk factors for CHD such as physical activity, South Asian women generally prefer facilities designed specifically for women due to cultural barriers regarding clothing and the appropriateness of exercising around men (Carroll et al. 2002; Babakus and Thompson 2012). Research involving interviews with South Asian women suffering from CHD revealed that committing time to exercise is equivalent to sacrificing family time, cooking, and childcare (Sriskantharajah and Kai 2006). Subsequently, it can be challenging for South Asian women to reconcile health-related recommendations with their culture and customs, particularly in the case of dietary and physical activity changes.

Communicating CHD risks will not be effective unless South Asians' health beliefs and behaviours, which could affect their engagement in current CR programmes are considered (Darr et al. 2008; Lucas et al. 2013). After a cardiac event, changing one's lifestyle can be challenging as patients have both physical and psychological complications, and are vulnerable to psychosocial affects, which may reduce their ability to adjust to lifestyle changes after MI (Joshi et al. 2007). There is evidence suggesting South Asians in the UK experience significantly greater

psychosocial difficulties adapting post-MI when compared to the White population (Williams et al. 2007). Research has found that South Asian patients have limited understanding of CHD resulting from a lack of knowledge and negative experiences of healthcare, along with cultural and practical barriers preventing them from engaging with CR (Chauhan et al. 2010). Consequently they need to be provided with psychosocial support post-MI but before CR begins to address their health beliefs and to change their own perception of managing cardiac disease.

A key element of encouraging South Asians to engage effectively with CR is behaviour change. Healthcare professionals in our study described South Asian patients' lack of ownership of their own health. However, it can be challenging to increase patient responsibility. Doctors often use paternalistic communication styles with South Asian patients during consultations (Ahmed et al. 2015). The majority of patients who are not proficient in English have longer consultations, as practitioners spend much of the consultation asking questions rather than offering information (Neal et al. 2006). South Asians are often embedded in their own cultural beliefs, such attitudes towards and perceptions of their own health can affect their ability to process health information and also to doubt the effectiveness of adhering to medical advice (Ramaswamy et al. 2020). Furthermore, promoting self-management for chronic diseases, a concept seen as useful from a Western perspective, is not appropriate for the South Asian community (Lucas et al. 2013). Thus, establishing trusting, empathetic relationships with healthcare providers, exchanging information, and collaborating on healthcare decisions, South Asian patients can be empowered to make effective lifestyle changes with support.

UK-based studies designed to improve CR programmes for South Asians have demonstrated encouraging results when these programmes are culturally sensitive,

such as *Project Dil* (Farooqi and Bhavsar 2001), the *Birmingham Rehabilitation Uptake Maximisation (BRUM)* study (Jolly et al. 2009), and *Khush Dil* (Mathews et al. 2007). The outcomes of these projects can assist healthcare professionals in planning and implementing culturally sensitive CR programmes. However, reforming the healthcare system presents a complex challenge for healthcare professionals and policymakers in terms of achieving equitable access (Szczepura 2005). Meeting the needs of ethnic minority groups requires sustainable services that are sensitive to cultural practices, however, this would entail dedicated resources and time to support patients such as South Asians (Galdas et al. 2012).

Among the health professionals we interviewed, one was a physiotherapist, while the other participants had a variety of professions, including cardiac nurses, cardiac physiologists, and general practitioners. CR is a multidisciplinary effort involving a variety of healthcare professionals, including allied health professionals such as physiotherapists, working as part of a team. Our findings suggest that cultural competency training may be useful for all healthcare professionals involved in CR to support them in providing more effective care to South Asian patients, as well as to assist healthcare professionals in planning and implementing culturally sensitive CR programmes.

Strengths, Limitations and Future Research

This was an exploratory study and due to the opportunistic nature of the sample, the findings must be interpreted with caution. This study had a limitation in that participants' views on current CR practice may have been influenced and dependent on their location, as services operate proportionately to the Asian demographic. Another limitation concerns potential bias with the main researcher being of South Asian ethnicity. However, preventative measures such as member checking and the

use of semi-structured interviews with open-ended questions enabled the researcher to avoid speculating or generalising. The credibility of the findings is strengthened by participants' varied job roles and locations across England; their views may therefore be more representative of the general South Asian healthcare professionals' population.

It is also essential to exercise caution when interpreting data from this study due to cultural differences and the diversity that exists across South Asian communities. A complex interaction occurs between lifestyles, beliefs, and attitudes which are influenced by socioeconomic background resulting in different health outcomes. Nevertheless, our findings offer valuable insights for healthcare professionals working with South Asian CR patients.

There are two potential areas for future research to concentrate on. Firstly, more attention should be given to focusing on CR interventions with South Asian women as they were considered the least likely to adhere to CR by healthcare professionals in our study. Participants discussed how focusing services and interventions on South Asian women may be beneficial in the long term as women can be influential in changing the health behaviour of their whole family. Second, area-specific research could establish issues relevant to the Asian demographic and CR services situated in that specific area. As the present study was based on participants' personal observations at their workplace, these findings should form the basis for more focused research comparing South Asian patients' views to those of healthcare professionals, helping to ensure consistency when discussing CR programmes, contact time, communication with doctors and service provision.

Conclusion

This study focused on a previously unexplored area by taking an inductive approach to gathering the views of South Asian healthcare professionals on CR adherence in South Asian patients. There was a significant cultural component to all of the findings as they demonstrate how strong the relationships are between culture and the South Asian community from the perspective of South Asian healthcare professionals. According to prior research, it is necessary for the services to be adjusted and tailored to the needs of this group and for CR programmes to be appropriately culturally tailored to this high-risk ethnic population. However, the views expressed by South Asian healthcare professionals, in the present study, suggest that for South Asian patients to engage effectively with CR programmes, the focus should simultaneously be on changing South Asian patients' perceptions of their own health and on supporting patients to develop the necessary skills to engage with CR.

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