

This is the peer reviewed version of the following article: Davidson Patricia et al. 2010, 'A review of the cultural competence view of cardiac rehabilitation', Blackwell Publishing Ltd, vol. 19, pp. 1335-1342. which has been published in final form at <http://dx.doi.org/10.1002/aqc.759> This article may be used for non-commercial purposes in accordance With Wiley Terms and Conditions for self-archiving'

Review Article

A cultural competence view of cardiac rehabilitation

Abstract

Aims and objectives: This paper describes cultural competence issues within the scientific and scholarly discourse surrounding cardiac rehabilitation (CR).

Background: CR is an important secondary prevention strategy, improving health-related outcomes and reducing the risks of subsequent cardiovascular events. Internationally, it is widely accepted as a discrete health service model and is endorsed by government and professional bodies. Over past decades, low participation rates in CR remain a concern, particularly among minority groups and culturally and linguistically diverse populations.

Conclusions: Few studies to date have described cultural competence in CR service design and as a consequence, there are minimal data to assist CR professionals and policy makers in tailoring health service delivery models. The limited scholarly debate and discussion regarding cultural competence in the CR literature limits the development and evaluation of culturally appropriate interventions.

Implications for clinical practice: There needs to be a greater attention to the concept of cultural competence, both in practice and research settings, to ensure access to CR for people from culturally and linguistically diverse backgrounds.

Introduction

Despite improvement in the health of the developed world, many countries are challenged by health inequalities, including disparities in cardiovascular health, particularly coronary heart disease (CHD) (Turrell *et al.* 2006). Cardiac rehabilitation (CR) refers to the strategies implemented, with an organised service model, to assist patients to return to an active and satisfying life and prevent further cardiovascular events (National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand (NHF/CSANZ) 2004). In recent times socioeconomic, gender, and race inequalities in CHD have widened. Further, in areas such as smoking where significant improvements have been achieved, these improvements are less apparent in socially disadvantaged groups (Anand *et al.* 2006). Reasons for treatment disparities are multifaceted and encompass social, political and economic factors. Lower socioeconomic status, discrimination in delivery of health services and the failure of health care organizations and programs to provide culturally competent health care to diverse racial, ethnic and cultural populations are contributing factors to health inequalities (Anand *et al.* 2006, Davidson *et al.* 2003; Newman 2004). This inequity is exacerbated among ethnic, racial, and cultural groups where language barriers are not accommodated for within mainstream services.

Cardiovascular disease is a major contributor to both morbidity and mortality in ethnic minority populations (Mosca *et al.* 1997, Shahwan-Akl 2001, Sheth *et al.* 1999). However, the prevalence and magnitude of the associated risk factors varies across different cultural, ethnic, and racial groups (Chyun *et al.* 2003, Mosca *et al.* 2004). The risk of CVD is influenced by genetics and age, as well as environmental, social, and economic factors (Anand *et al.* 2006). Although widely studied in Caucasian populations, models to prevent CHD in racial and ethnic minority populations are limited. This is likely a consequence of methodological challenges in research, the complex and multifaceted dimensions of addressing health inequity and the increased costs due to the need for

interpreters and translated material in cross cultural research (Malhotra & Agarwal 1996, Rust & Cooper 2007). In spite of these challenges, significant research has been undertaken in diabetes and mental health which provide us with important strategies and directions for CR model development (Banzer *et al.* 2004).

Disparities in use of cardiac rehabilitation programs among minorities and diverse cultural groups

In many countries such as the United Kingdom (UK) and Australia, CR services are well-established service models available free of charge and endorsed by health care policy.

(NHF/CSANZ 2004) In spite of these benefits, CR is underused, particularly by ethnic minorities and culturally diverse populations. Health disparities are commonly encountered both in referral to and uptake of CR services (Cooper *et al.* 1999, Scott, *et al.* 2003). The sparse literature in this area shows that even when patients are referred to CR, lower percentages of patients from ethnic minorities and diverse cultures attend and complete the programs (Jolly *et al.* 2004). This disparity is even more striking among women (Jolly *et al.* 2004, Moore 1996).

Addressing modifiable risk factors is central to the prevention and control of diabetes, hypertension, and hyperlipidaemia (Chyun *et al.* 2003). Culture undoubtedly impacts, both positively and negatively, on an individual's health and health-seeking behaviours (Towle & Arslanoglu 2003). The perception of risk and management of CVD risk factors including attitudes toward diet, exercise, and obesity are entrenched in cultural beliefs and practices (Davidson *et al.* 2004). For example, the term '*cardiac rehabilitation*' may be potentially foreign and alienating. In some cultures a diagnosis of heart disease has a treatment regimen of enforced rest rather than promotion of physical activity (Webster *et al.* 2003). A belief in fatalism existing among some cultures, shapes attitudes and consequent health-seeking behaviors. Fatalistic attitudes may also impede a direct confrontation with the consequences of an unhealthy behavior, such as smoking (Manson 1988). On the other hand, using the strengths of cultures, such as the role of families in supporting

an ill member and incorporating caregiving kin in programs, may improve outcomes (Webster *et al.* 2003).

As mentioned above, achieving behavior change to improve the CVD risk profile is a critical element in CR programs (Gordon 2002, Newman 2004). Indisputably, the receptivity and the capacity to moderate behaviors are influenced by an individual's beliefs and culture. Based on their culture, people make choices to change their unhealthy lifestyles which may affect their risk of CVD (Brisbane *et al.* 1998, Gordon 2002). As a consequence, in order to address these issues, health professionals need to be attuned to the cultural beliefs of their clients. The extent to which the individual attributes known risk factors to CVD influences how the potential threat is perceived and what action is taken to engage in and maintain behavior change (Cooper *et al.* 1999, Weinstein 1999, Zerwic *et al.* 1997). Therefore, considering the individual's beliefs and health-seeking behaviors is becoming increasingly important in communicating the future risk of CVD events.

Effectively and efficiently communicating risk of future events, within a framework of cultural competence, renders significant challenges to health care professionals in multicultural countries. Health professionals need to appreciate their clients' diverse perspectives that can impact upon self-care behaviors. Cultural competency refers not merely to language proficiency, but rather includes a broader appreciation of cultural values, health seeking beliefs and practices as well as genetic and biological characteristics (Davidson *et al.* 2004, Zerwic *et al.* 1997) Cultural competence is defined as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enable system, agency, or professionals to work effectively in cross-cultural situations"(Brisbane *et al.* 1998). This review article seeks to explore the extent to which the notion of cultural competence has been embraced within the scientific and scholarly discourse of CR.

Cultural Competency

The terms culture and ethnicity together refer to socioeconomic, religious, and political traits, including language and regional identity (Lee *et al.* 2001). Competence implies having the capacity to function effectively (Brisbane *et al.* 1998). Proctor & Davis (1994) suggest four criteria for practitioners to become culturally competent. Firstly, the practitioner needs to be aware of his or her own beliefs and attitudes about racial and ethnic minorities in order not to impose these feelings on his or her patient. Secondly, practitioners need to understand and be aware of the world views of the patient without judging them. Thirdly, the practitioner needs to be aware of how race, culture, and ethnicity affect personality and personal choices, as well as life experiences. Fourthly, the practitioner must be able to use culturally competent skills when interacting with people from racial or ethnic minority groups. These factors impact upon four key target areas including: administration and leadership; policymaking and governing boards; clinical standards and guidelines; and organizational vision and mission (Proctor & Davis 1994). Goode & Harrison (2000) suggest that a culturally competent health system acknowledges:

...beliefs, values, traditions and practices of individuals and families within their cultural context; culturally-defined strengths and needs related to health of individuals, families and communities; culturally-based belief systems of the etiology of illness and disease and those related to health, healing and well-being; and attitudes toward seeking help from primary care providers.

Anderson *et al.* (2005) have describe five strategies to improve cultural competence in healthcare systems: (1) programs to recruit and retain a workforce reflective of the cultural diversity of the community served; (2) the use of interpreter services or bilingual health care workers; (3) cultural competency training for healthcare workers; (4) the use of linguistically and culturally appropriate health education materials; and (5) programs conducted in culturally acceptable and accessible settings.

Imperative for Cultural Competence

The lack of appreciation of cultural differences may result in misunderstanding and distrust.

Further, the absence of discussion regarding these issues in the CR literature limits the development and evaluation of culturally appropriate interventions. Cultural and linguistic barriers have long been problems in establishing an effective therapeutic alliance between patients and therapists from different cultural, ethnic, and racial backgrounds. The Minnesota study reported that the lack of trust and comfort that American Indians felt with medical providers was a barrier to receiving health services (Minnesota Department of Health 2004). In another study, language was identified as the key barrier to accessing health services by South Asians (Farooqi *et al.* 2000). Effective communication with people from different cultures requires sensitivity to diversity and unique perspectives. Learning about patients' beliefs and finding out what is meaningful to them may facilitate a positive and trustable therapeutic relationship. The probability of achieving optimal outcomes will be greater when a health care plan is based on cultural competency. Although there is limited empirical data evaluating the success of cultural competence interventions on improving outcomes, the existence of health disparities and the failing of the health care system to provide adequate care to patients from a different cultural background may strengthen the link between increasing cultural competence and health outcomes.

We have undertaken an appraisal of the literature and discourse relating to cultural competence in planning and delivering CR programs. Although there are many interventions that address cultural diversity in cardiovascular risk reduction, the purpose of this discussion is to focus specifically on cultural competence within the CR setting. The rationale for this decision is that in many practice settings this service model is often funded or reimbursable, therefore We undertook a literature search on all available citations using Medline, Cumulative Index of Nursing and Allied Health Literature [CINAHL], EMBASE, Psychlit databases and reference lists of the retrieved reports. The

World Wide Web was also searched using the Google Search Engine. The key search terms used were 'cardiac rehabilitation', 'cardiovascular disease', 'heart disease', 'cultural sensitivity', and 'cultural competency'. Only documents published in English which included cultural consideration in management of CVD, both in primary and secondary levels, were included in this review.

Table 1 provides an illustration of the limited discourse and discussion of issues related to cultural diversity in the CR literature. This data shows that although there is significant discussion in published studies, a striking finding is the limited discussion, debate and evaluation of cultural competence issues in the CR setting, reflected by the low number of articles retrieved using this search strategy. For example, the Medline search retrieved 5,994 citations for *cultural diversity* and 1,985 for the term *cardiac rehabilitation*, yet no citations for these terms when combined.

This evidence of limited discussion and debate is of concern in promoting practice, policy and research in respect of culture and diversity in CR. To date, the majority of studies in this area is descriptive and although commonly cited as policy recommendations, examined literature relating to culturally targeted interventions using searches of the Medline and CINAHL databases. They found that culturally relevant interventions improve health outcomes in conditions such as diabetes and drug addiction, although no specific reference was made to cardiac rehabilitation. These authors concluded that culturally relevant interventions do not require specific knowledge of discrete groups, but rather the adopting of principles relating to cultural competence (Kehoe *et al.* 2003).

Insert Table 1 approximately here

Cultural competency in service delivery

In spite of the absence of evidence for CR services, enabling health services to achieve the best fit to diverse population groups has been the subject of debate and discussion in recent years. Some studies have shown that culturally and linguistically competent primary care increases patient satisfaction, health outcomes, and higher levels of preventive care (Lee *et al.* 2002). Further, an integrative review study of 14 randomized controlled and uncontrolled studies with a pre-test post-test design concluded that culturally relevant interventions significantly improve health outcomes for diabetes, drug addiction, and sexually transmitted disease (Kehoe *et al.* 2003).

Increasingly the role of culture and ethnicity in the development, progression and interpretation of symptoms in heart disease is being recognized. In 1997, Chaturvedi *et al.* (1997) reported the impact of culture in the expression and interpretation of symptoms of heart disease. They also found culture to be a significant contributor to the delay in South Asians receiving appropriate treatment for heart disease. These researchers identified a need for a systematic analysis of health seeking behaviors and identification of barriers in order to formulate meaningful strategies for patients from diverse cultures.

Webster *et al.* (2002; 2003) determined that needs and experiences of the Gujarati Hindu patients after a cardiac event were different from those of non-Asians. They also reported that an individual's adjustment after a heart attack was influenced by their culture. For example, a sense of resignation among the survivors of myocardial infarction as to their fate was reported. The study population was passive in interfacing with secondary prevention initiatives, waiting to be called and apparently not feeling comfortable actively pursuing these services. These feelings were shaped by the large numbers within their community with heart disease and the cultural and spiritual attribution of disease. Their studies underscored the critical influence that culture may have in determining health seeking behaviors and response to traditional risk factor modification strategies. The authors suggested that understanding these key concepts could assist health professionals in

recognizing potential barriers in order to tailor interventions to best suit patients' needs and improve health outcomes.

A need for cultural competency in service delivery to patients with heart failure has also been emphasized by Davidson *et al.* (2004). The Discover study sought to explore the health patterns, information needs and health seeking behaviors in culturally diverse individuals with heart failure. A need for tailoring of existing models of heart care to ensure acceptability by varying cultural and ethnic groups was identified in this study and implementation of cultural competency in management of heart failure, particularly among women, was recommended.

Despite widespread acknowledgement of the need for cultural competency in health systems, there are few empirical studies investigating this matter in delivering CR services to culturally and linguistically diverse patients. The limitation of the search strategy used for this study retrieving literature only published in English is recognized. In spite of this, countries such as the United States of America, Australia, and the UK are characterized by their cultural diversity and have mandated consideration of these issues in CR design, implementation, and evaluation. Although many innovations are likely occurring at the practice level, these are not readily accessible in the peer-reviewed literature as evidenced by this review. This limits the evidence base to inform quality interventions. Methodological challenges in instrumentation, study design and increased costs related to translation, interpretation and community engagement likely contribute to the minimal data available in the English language (Jolly *et al.* 2005). To date, health systems fall short of empirical data documenting what cultural competency techniques are effective or when and how to implement them properly within structured care settings, such as CR (Chaturvedi *et al.* 1997, Kehoe *et al.* 2003). As a result, there are a lack of guidelines and standards to assist providers in delivering appropriate services to culturally and linguistically diverse patients.

Culture is a critical element in the recognizing and managing CVD risk. From a perspective of culture, there is a shortage of information on culturally and linguistically diverse populations in the CR setting. Under-representation of minorities and cultural groups in studies results in designing intervention strategies based on information from non-ethnic, racial, and cultural populations. As a consequence, it is likely that these programs do not meet the needs of the diverse cultural populations. In ethnic/racial communities, developing culturally and linguistically appropriate health promotion priorities, interventions, and goals requires active participation of the target community members in the design, implementation, and evaluation of the intervention. This approach can be facilitated via ethnography and related qualitative research procedures (Farooqi *et al.* 2000, Jolly *et al.* 2005, Webster *et al.* 2002). These processes of involvement and engagement are recognized as being critical in indigenous populations (Pe-Pua 1989, Struthers & Peden-McAlpine 2005).

Further, current heart health promotion strategies are not reaching as wide an audience as needed and this is particularly critical for socially isolated groups and people whose first language is not English. Of concern, many of the people in greatest need have the greatest challenge in accessing mainstream services. For example, health education materials are often written at an inappropriate reading level, especially for minority groups in which English may be a second language (Manson 1988). The language barrier may partially explain why peers were reported as a major source of information about health and health programs, particularly, among minorities. These important issues must be addressed if significant and meaningful changes in heart risk behavior are expected to occur. Organizing heart health workshops in the languages of the communities and development of a strategy to transmit culturally appropriate heart health information via ethnic media may be beneficial measures. Learning from experiences in other practice settings may also assist in tailoring CR services (Chyun *et al.* 2003).

As illustrated in Figure 1, in order to increase the focus on cultural diversity and promote cultural competence in CR, we propose a need to consider dimensions relating to policy, practice, research and education of health professionals. Key issues related to these dimensions are discussed below.

Policy

In spite of the increasing focus on cultural diversity and the importance of focusing on the needs of people from culturally diverse backgrounds, the translational aspects of this advocacy are less clear, possibly due to lack of funding, resources and expertise to enable a positive response. In order to successfully implement these policies, sufficient resources and skills need to be provided to clinicians to enable culturally competent care.

Increasing access

From the available literature, key strategies in increasing access of marginalized groups to services are: (1) increasing participation of health professionals and health workers from target populations; (2) undertaking interventions within a context of reciprocity and respect; (3) implementing strategies to promote engagement and participation in service development by local communities; (4) providing culturally appropriate resources and support to local services; (5) using a whole of person approach, recognizing cultural, psychological and spiritual issues, rather than a disease-specific approach; and (6) acknowledging the impact of historical, social and economic circumstances on adverse health outcomes in marginalized populations. These strategies are particularly important in indigenous populations where the burden of cardiovascular disease is overrepresented.

Education for CR professionals

Cultural competence training is a potentially beneficial strategy for improving the knowledge, attitudes, and skills of health professionals. Beach *et al.* (2005) report a positive relationship between cultural competence training and health outcomes. They suggest that further research on

cultural competence training should focus on the medium and style of training and how this impacts on health-related outcomes (Beach *et al.* 2005). Cultural competence should be a key component of not only formal education programs in the university sector, but also of workplace training and development. Not only do we need to focus on cultural competence in the practice setting, but we need to consider this within the research domain.

Research

Increasing the evidence base for embracing a cultural competence approach in CR is needed, particularly regarding health-related outcomes. Undertaking strategies to increase the participation of minority groups in CR research and focusing on their unique needs is an important way forward. In addition, we need to recognize that in some cultures, widely accepted instrumentation may be not valid. For example, Lee *et al.* (2002) identified a variation in responses to Likert scales in Chinese, Japanese and Americans recruited to a study to investigate social coherence.

Papadopoulos & Lees (2002) claim that cultural awareness, cultural knowledge, cultural sensitivity and cultural competence should be key attributes of researchers and that a culturally competent researcher should be able to apply these concepts in project design, data collection, analysis, report writing and dissemination.

Conclusion

Disparities exist both in the prevalence of risk factors for CVD and the ways in which care is delivered. CR is an evidence-based strategy to improve cardiovascular outcomes and is increasingly important in ensuring risk factor reduction and recovery from an acute event. It is critical that the CR community increases the focus on the tailoring of CR programs to meet the needs of people from culturally and linguistically diverse populations, and assesses the effectiveness of such adjustments in utilization, concordance, health outcomes and satisfaction of these people. Increasing the debate and discourse regarding cultural diversity in the CR literature should increase the awareness and stimulate research in striving for culturally appropriate and acceptable interventions

and also promoting the development of interventions to increase cultural competence among health professionals.

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Table 1**Examples of searching of electronic data bases using MESH terms**

	Medline 1950- April 2007 Search term (n)	CINAHL 1982- April 2007 Search term (n)	EMBASE 1998- April 07 Search term (n)	Psychinfo1998- April 07 Search term (n)
1	Cultural diversity (5,994)	Cultural diversity (2,761)	Cultural diversity (9,091)	Culture (Anthropological) (42,008)
2	Cultural competence (504)	Cultural competence (2,214)	Cultural competence (3,25)	Cultural competence (680)
3	Cardiac rehabilitation (1,985)	Cardiac rehabilitation (1,985)	Cardiac rehabilitation (1,851)	Cardiac rehabilitation (386)
4	Combine 1 &3 (2)	Combine 1 &3 (0)	Combine 1 &3 (0)	Combine 1 &3 (6)
5	Combine 2&3 (0)	Combine 2&3 (1)	Combine 2&3 (0)	Combine 2&3 (0)