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ORIGINAL ARTICLE

A Contemporary Phone-Based Cardiac Coaching Program: Evolution and Cross Cultural Utility

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Background The Hospital Admission Risk Program (HARP) Cardiac Coach Program at Royal Melbourne Hospital has evolved to include a Greek and Italian service, developed in response to the diverse local community and supported by evidence that Culturally and Linguistically Diverse (CALD) groups both perceive health and respond to health care services and information, differently. This paper aims to evaluate if a phone-based cardiac coaching program can be adapted to the Greek and Italian populations using the English cohort as a comparator.

Methods We retrospectively analysed cardiovascular risk profiles at recruitment into and at discharge from the program. Patients (n = 383) were recruited after an acute coronary event or intervention between June 2011 and June 2013. Recruitment was into the English (n = 301 patients (79%)) Greek (40 (10%)) or Italian (42 (11%)) model. Data was collected on demographic information and risk factor status at entry and discharge from the program: waist circumference, weight, height, lipid profile, HbA1C, smoking status and physical activity. A comparison of the proportion of patients meeting the defined targets across the English, Italian and Greek cohorts was performed, with multivariate logistic regression analysis applied to adjust for differences in baseline variables.

Results There were baseline differences in age, smoking history, total cholesterol and cholesterol fractions, diastolic blood pressure, weight and physical activity between the cohorts. At discharge, the proportion of patients meeting targets within each cohort were similar.

Conclusion A phone-based integrated disease management program can be adapted to CALD patients, achieving comparable outcomes as compared with an English-speaking cohort. Health services need to respond to their local needs and be flexible in program delivery in order to benefit as many patients as possible.

Keywords Ethnicity • Diverse populations • Cardiovascular disease risk factors • Secondary prevention • Access to care

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Introduction

Cardiovascular disease affects more than 1.1 million Australians (5% of population, two years or older) [1] and in an increasing and ageing population, with economic pressure for later retirement [2], it is critical that people attain and maintain 'best health' after a significant cardiac event [3]. The concept of phone coaching for secondary prevention is accepted and utilised in many Australian hospitals, as it has been shown to improve control of modifiable cardiac risk factors [4] such as high blood pressure, high cholesterol, being overweight, smoking status, and physical inactivity [5]. However, evidence [6–10] suggests that culturally and linguistically diverse (CALD) groups perceive health issues and respond to health care services and information, differently.

Health literacy, as measured by the Adult Literacy and Life Skills survey (ALLS), is described as the knowledge and skills needed to understand and use information relating to health including disease prevention, medication use, treatment decisions and staying healthy [11]. The ALLS survey categorises people into five levels of health literacy where 5 is the highest attainable result. Level 3 is regarded as the minimum required for coping with the demands of complex work, life and health issues [11]. An Australian ALLS survey 2006 demonstrated significant issues with health literacy nationally, with 59% of Australians found to be at Level 1 (19%) or Level 2 (40%) [11].

In comparison, health literacy in people whose first language is not English is lower, with 25% achieving a minimum of Level 3 on the ALLS survey as compared to 44% of people in whom English is a first language [11]. This may mean that people from non-English speaking backgrounds are less likely to access services and understand issues related to their health [12]. Recognising this challenge is vital as lower levels of health literacy are associated with higher use of health services, lower levels of knowledge and poorer health outcomes [13].

Additionally, evidence from the UK demonstrates that CALD groups experience disproportionate levels of morbidity and mortality associated with cardiovascular disease [14,15]. A large investigation by the National Institute for Health Research in the UK highlighted the lack of evidence for the adaptation of health promoting interventions in different CALD groups compared to White Europeans, though noting improvements in acceptability, uptake, trust and retention of the interventions where the intervention was language specific [16]. Furthermore, a recent meta-analysis and literature review by Neubeck et al. (2012) identified language as a main barrier to participation in a cardiac rehabilitation secondary prevention program and that a language specific or remote flexible model had been shown to increase uptake and participation [17]. This highlights the importance of a culturally sensitive and holistic (whole person) approach.

The Hospital Admission Risk Program (HARP) Cardiac Coach Program at the Royal Melbourne Hospital (RMH) commenced in 2003 and is based on the Coaching On Achieving Cardiovascular Health (COACH) Program, which was developed in St Vincent's Hospital, Melbourne in 1995 [4]. At the RMH, the model has developed and evolved over time in response to the Health Independence Program (HIP) Guidelines [18] and patient need. As well as risk factor modification, it now incorporates holistic assessment and identification of other needs, including referral to appropriate community services. This evolved model includes pain and wound management post coronary artery bypass grafting (CABG), glyceryl trinitrate (GTN) use and angina management advice, mood screening for depression, smoking cessation intervention and, most recently, recognition of the proportion of patients from a CALD background who attend our hospital.

Objectives and Aim

In response to the diversity demonstrated within our local health system, we investigated and established that, other than English, Greek and Italian were the two most commonly spoken languages, (27% and 25% respectively), in our geographical catchment. Consequently, the Greek HARP Cardiac Coach pilot was established in 2008, with further expansion of the program to include an Italian HARP Cardiac Coach in 2011. Australia wide, 1.5% of the population speaks Italian and 1.2% speaks Greek at home [2]. This evolution in our HARP Cardiac Coach program recognises the disadvantage faced by non-English speaking patients in accessing cardiac rehabilitation programs and also sought to address specific cultural needs.

Culturally and linguistically diverse groups may share some characteristics, however, different CALD groups have their own distinctive language and may, additionally, have specific values, religion, customs and attitudes [19,20]. This highlights the importance of devising strategies and programs to address specific cultural and language factors among different ethnic groups. The fact that local health system or cultural factors can affect the delivery and outcomes of culturally specific programs underpins why trials with similar programs are currently being run overseas [10] and why we wanted to respond to a demonstrated need and simultaneously explore the adaption of the program to the Greek and subsequently Italian population at our hospital.

Methods

Design

We retrospectively analysed cardiovascular risk profiles at recruitment and discharge in 383 patients recruited into the HARP Cardiac Coach program between 23 June 2011 (commencement of the Italian Cardiac Coach pilot) to 24 June 2013. During this period, 301 patients (79%) were cared for under the English model, 40 (10%) under the Greek model and 42 (11%) under the Italian model (Figure 1). During this period, there were three staff working as HARP Cardiac

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