

Perceptions of healthcare staff in relation to referral for cardiac rehabilitation

ALI YALFANI, ABEBAW M YOHANNES, PATRICK DOHERTY, JEAN BRETT, CHRISTINE BUNDY

Abstract

Referral to cardiac rehabilitation (CR) is often incomplete. Those most likely to benefit are less likely to be offered the service and there has been little systematic exploration of the reasons for this situation in the UK. The purpose of this study was to investigate CR staff perceptions in relation to aspects of referral to CR programmes. In a prospective cross-sectional study, a 24-item questionnaire regarding perceptions of referrals was mailed to 115 referring staff of 23 CR out-patient programmes in the North West of England. The response rate was 85 (74%). The most common factors cited for low referrals were: funding limitation 57 (67%), limited facilities 56 (66%), shortage of trained staff 51 (60%) and patients' poor physical ability 50 (59%). Fifty-three (62%) respondents suggested participation would increase if CR were offered by a medical practitioner. Sixty-one (72%) respondents felt they provided CR according to recommended guidelines. Seventy-nine (93%) of the respondents agreed CR was necessary or appropriate for most cardiac patients and 76 (89%) reported CR offered more to patients than secondary prevention. The study concludes that CR programmes should be audited better and physicians need to be more actively involved in recruiting patients to programmes. Better funding is required to increase facilities and staff training to improve referral of patients.

Key words: coronary heart disease (CHD), cardiac rehabilitation (CR), referral.

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Introduction

Coronary heart disease (CHD) is the leading cause of morbidity and mortality in the UK.¹ Cardiac rehabilitation (CR) is a multi-dimensional programme which aims to improve physical activity, psychological well-being and quality of life in patients with cardiac problems.²

The National Service Framework for CHD in England and Wales³ recommends that 85% of people discharged from hospital with a primary diagnosis of myocardial infarction (MI) or after coronary revascularisation, should be offered CR.³ Despite the documented evidence of the benefits of CR,^{4,7} including improved exercise tolerance, reduced cardiovascular risk factors and improvement in psychological functioning,⁸ CR services do not consistently employ this evidence in the UK,^{6,9} and a significant proportion of eligible patients are unlikely to be offered CR. Access to the service and recruitment practices to CR further affect the poor uptake rate. Several factors have been reported for low referrals: older age and female gender;¹⁰⁻¹³ the lack of physician's involvement in referral;¹⁴ and belonging to a lower socio-economic group.¹⁰ There has been little attention to staff perceptions in relation to CR referrals.

The purpose of this study was to investigate CR staff perceptions in relation to CR referral.

Methods

Participants and study design

We conducted a prospective cross-sectional survey. A master list of all existing CR programmes in the North West of England was obtained from the Manchester Heart Centre, from which 23 CR programmes were identified. We mailed five questionnaires per centre to the CR co-ordinator (n=23 centres, 115 participants) with a request to distribute the questionnaires to those currently involved in referral of patients with cardiac problems to phase III out-patient CR programmes. In order to enhance a response rate, a self-stamped addressed envelope was enclosed.

All questionnaires were coded for easy identification and so those centres that did not respond to the survey could be contacted again. Reminders were sent after two weeks.

Questionnaire design

We designed a questionnaire to obtain the perceptions and current practice of healthcare professionals' referral patterns of CHD

University of Manchester, Oxford Road, Manchester, M13 9PL.
Ali Yalfani, Researcher
Christine Bundy, Senior Lecturer in Psychological Medicine

Department of Physiotherapy, Manchester Metropolitan University,
Elizabeth Gaskell Campus, Hattersage Road, Manchester, M13 0JA.
Abeba Mengistu Yohannes, Senior Lecturer

School of Professional Health Studies, York St John University College,
Lord Mayor's Walk, York, YO31 7EX.
Patrick Doherty, Professor of Rehabilitation

Central Manchester and Manchester Children's University Hospital NHS
Trust, Specialist Cardiac Services, Manchester Heart Centre, Oxford
Road, Manchester, M13 9WL.

Jean Brett, Cardiac Rehabilitation Co-ordinator

Correspondence to: Dr AM Yohannes
(email: A.yohannes@mmu.ac.uk)

Table 1. Participants' views of cardiac rehabilitation (CR) efficacy

	Strongly agree	Agree disagree	I don't know	Disagree	Strongly
CR is most effective if patients with a specific condition are grouped together	21 (25%)	24 (28%)	27 (32%)	10 (12%)	3 (3%)
CR is more effective if a doctor is present at the session	1 (1%)	5 (6%)	15 (18%)	48 (56%)	16 (19%)
Participation would be increased if CR were offered by a medical practitioner	5 (6%)	48 (56%)	14 (16%)	16 (19%)	2 (2%)
We provide CR according to recommended guidelines	40 (47%)	21 (25%)	10 (12%)	13 (15%)	1 (1%)

Table 2. Participants' views of referral to cardiac rehabilitation (CR)

	Strongly agree	Agree	I don't know	Disagree	Strongly disagree
Development of trained staff is crucial to increase referral and quality of programme	51 (60%)	34 (4%)	-	-	-
We have an appropriate cardiac rehabilitation referral strategy in our hospital	34 (40%)	32 (38%)	10 (12%)	8 (9%)	1 (1%)
CR offers more than secondary prevention	46 (54%)	30 (35%)	8 (9%)	1 (1%)	-
CR is unnecessary for most cardiac patients	-	5 (6%)	1 (1%)	17 (20%)	62 (73%)

patients to CR programmes. It consisted of 24 items divided into four sub-sections to: i) investigate participants' perception about CR efficacy; ii) the patient's condition and referral to CR; iii) referral patterns and staff training; and iv) background information of participants in the survey. Most of the question responses were designed on a 5-point Likert scale format from 'strongly agree' (=5), to 'strongly disagree' (=1). A few questions asked the participants with a list of choices to select those that were applicable to them.

We conducted a pilot study to test the questionnaire's clarity and ambiguity with five CR referral participants in one centre. All participants responded (n=5) positively and there was a little feedback to improve the questionnaire which we incorporated into the main study. The pilot participants were not included in the data analysis.

The study was approved by the local ethics committee.

Data analysis

Descriptive statistics were used to describe the sample. We collapsed 'strongly agree' and 'agree' to obtain an aggregate 'agree' score and 'disagree' and 'strongly disagree' to form the 'disagree' score in order to improve clarity and presentation of data.

Results

Eighty-five (74%) participants from a total of 115 in 23 CR programmes returned fully completed questionnaires. Of these, 36 (42%) were physiotherapists, 36 (42%) were specialist nurses and 13 (16%) were physicians/cardiologists; 13 (15%) were male and 72 (85%) were female. The mean (SD) age of participants was 39 (7.2) years and the mean (SD) number of years working with cardiac patients was 12 (5.5) years.

Participants were asked to determine which factors might have effected their CR referrals. The most common factors cited for low referrals were related to service provision or lack of appropriate service provision. They included: funding limitation 57 (67%); limited facilities 56 (66%); and shortage of trained staff 51 (60%). Poor physical ability of patients was reported by 50 (59%) and co-morbidities 42 (50%) amongst participants. Other patient factors such as age, gender, length of hospital stay, poor family and social support and severity of disease minimally affected referrals to CR.

Participants' views of CR efficacy are summarised in table 1. Forty-five (53%) felt that it was most effective if patients with a similar condition were grouped together. Sixty-four (75%) said CR was no more effective if a doctor was present at the session while 53 (62%) of the participants thought participation rates would increase if medical practitioners were more actively involved in referring patients. Sixty-one (72%) of the respondents reported that they provided CR according to recommended guidelines.

Table 2 shows, 66 (78%) of the participants felt their hospital operated an appropriate CR referral strategy and 76 (89%) of respondents agreed that CR offered more to the patient than secondary prevention. All participants endorsed that the development of trained staff was crucial to increase referral and improve quality of CR programmes.

Discussion

Utilisation of CR is low^{6,11} and differences in referral patterns or recruitment of patients seemed to have an effect on programme utilisation levels. We found the perception amongst healthcare professionals for low referral rates to be related to funding limi-



Key messages

- Most survey participants believed that limitations in funding, staff and facilities are responsible for patchy referral practice
- National audit is required to measure to what extent we are meeting National Service Framework guidelines for cardiac rehabilitation
- Better funding is required to improve facilities and staff training
- Physicians need to be more actively involved in recruiting patients to cardiac rehabilitation programmes

tation, limited facilities and shortage of CR trained staff. This may reflect, in part, inadequately equipped CR services in the UK.

Our study showed that if healthcare professionals perceived poor physical ability, this affected referral patterns. We argue that professionals misconceive that those with severe physical disability will not benefit from CR programmes. Whilst it may be the case that there are inadequate support staff to tailor individual exercise programmes and lack of proper changing facilities and privacy, especially those with wheelchair-bound patients, evidence shows that those with the most limited capacity are likely to derive most benefit from CR. We know that these patients are less likely to be invited for CR.¹⁵ Since 72% of participants in this study reported that they provided CR according to recommended guidelines, it is not clear why patients with less physical ability are not referred for CR as NSF guidelines suggest they should be.² Regular auditing of practice and updating of evidence through staff training are crucial to improve the service.

Patient-based studies have reported that women and older patients are less likely to be referred to a CR programme.^{5,16} Like other studies,^{17,18} we also found that age and gender do not overtly affect referral patterns.

Most of the respondents emphasised that development of trained staff is crucial to increase referrals and the quality of the programme.¹⁶ The results also indicate that staff training is a key element for successful implementation strategies since this can empower staff with the necessary knowledge and skills to integrate research findings into practice.¹⁹

The results of this study add strength to previous research findings showing the importance of the referring physician's attitude. This affects CR referrals and consequently CR participation rate.^{14,20,21} To meet National Service Framework standards for CR, improving the quality of this service is desirable. In practical terms, it is necessary to find out how to increase physicians' involvement in the delivery of this service. Access strategies must be evaluated as evidence grows for an uneven uptake of CR across the cardiac population. There is the usual issue of increasing funding to ensure an equitable service is delivered and to ensure that staff training needs are met.

Caution is required in the interpretation of our findings as not all UK cardiac rehabilitation centres were included in the study. We do not know how many centres provide CR programmes according to recommended guidelines, although we believe our sample is representative of CR programmes in the UK. To conduct a more reliable audit, a larger study is required.

Conflict of interest

None declared.

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