A PRELIMINARY SURVEY OF THE PSYCHO-SOCIAL EFFECTS OF MYOCARDIAL INFARCTION OF PATIENTS ATTENDING A CARDIAC REHABILITATION PROGRAMME

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SYNOPSIS

The psycho-social effects of myocardial infarction on 20 post infarction patients attending a cardiac rehabilitation programme were assessed by means of self-administered questionnaires. This sample consisted entirely of men and the majority of them were married and were Indians. More than half the sample were from social classes 1 and 2. Though only half the patients had a realistic picture of their illness nearly all of them had positive attitudes towards recovery of their physical fitness. At the time of the survey, 85% had returned to work, and 65% had continued with their leisure activities. Sexual activity however, was noticeably reduced in the majority. Fear that sexual intercourse may be bad for the heart was the reason most often quoted for the reduction in frequency. Another aspect of their life-style which was modified after their illness was diet. Most of them became more aware of the importance of diet and had reduced their intake of certain foods like sugar and butter.

INTRODUCTION

The identification of the various risk factors in coronary heart disease is undoubtedly of great importance in the primary prevention of the disease. Nevertheless, rehabilitation of a patient after a myocardial infarction is gradually recognised as being of equal importance. The aim of cardiac rehabilitation is increasingly seen as helping the patient achieve maximal functioning in the physical, social and psychological spheres, and not merely as a means of getting him back to work. The importance of the psychological and social aspects of cardiac rehabilitation has been stressed[1 & 2].

The objective of this pilot study was to assess some of the psychological and social effects of myocardial infarction on patients and their spouses. This paper presents the effects on the patients, while a subsequent paper will deal with the reactions of the spouses.

STUDY POPULATION AND METHODS

Patients with biochemical and electrocardiographic confirmation of myocardial infarction and who were interested in rehabilitation were referred from medical units at the Singapore General and Toa Payoh Hospitals to the Cardiac Rehabilitation Programme (C.R.P.) at the Singapore General Hospital. In the absence of contra-indications, exercise testing commenced at 6 weeks post-infarction while those with favourable assessments were tested earlier. The achievement of 60% of the predicted maximal heart rate permitted entry into the programme.

The psycho-social effects of myocardial infarction were studied by means of self-administered questionnaires. All patients attending the C.R.P. were given the questionnaires at the end of an exercise session in October 1979. The majority completed it then and there. Those who were unable to stay back to answer the questionnaire were instructed to complete it at home without discussion with their spouses. These questionnaires were collected at the following exercise session and analysed subsequently.

Social class was derived from patient's occupation[3]. If he had retired, his occupation prior to retirement was used.

FINDINGS AND DISCUSSION

(I) General profile of the study population

All the twenty patients studied were men. Ten (50%) were Indians, five (25%) were Chinese, three (15%) were Malays and the remaining two (10%) belonged to other ethnic groups. Their ages ranged from 30 years to 58 years with a mean age of 45 years. Table 1 shows the distribution of the study population by age. A striking finding is that 80% of the patients are below the present age of retirement in Singapore viz 55 years. This feature could however be due to the selection process whereby more of the younger patients may have been found to satisfy the requirements for entry into C.R.P.

Table 1

Age (in completed years)	No.	%
< 40	4	20.0
40 —	7	35.0
45 —	2	10.0
50 —	3	15.0
55 or more	4	20.0
Total	20	100.0

Apart from two patients who were single — one widower and the other a bachelor — all the rest were married. Though the study population consisted of people from all five social classes, more than half were from social classes 1 and 2. The distribution by social class is as follows:- 6 (30.0%) from social class 1, 8 (40.0%) from social class 2, 3 (15.0%) from social class 3, 1 (5.0%) from social class 4 and 2 (10.0%) from social class 5. This slight preponderance of the upper social classes could again be a reflection of selection bias, in that more patients from the upper social classes were more aware of and motivated towards cardiac rehabilitation than those from the lower social classes. It should be remembered that patient motivation is one of the criteria for selection into the programme.

At the time of the survey, all twenty patients were at least 6 weeks post-infarction. Thirteen (65%) were between 12 weeks and 1 year post-infarction, while 6 were more than a year post-infarction. Only one patient was between 6 and 12 weeks post-infarction. In addition to differences in the duration post-infarction, the duration for which the patients have been in the C.R.P. was also different. This ranged from less than a month to five months or more. The distribution of the study population by duration in the C.R.P. is shown in Table 2.

Table 2

Duration (in completed weeks)	No.	%
< 4/52	3	15.0
4/52 —	7	35.0
12/52 —	1	5.0
20/52 or more	9	45.0
Total	20	100.0

The fact that the patients were all at different stages of recovery from their myocardial infarction has to be borne in mind when interpreting such findings as patients' attitudes to the illness and their level of physical and other activities.

(II) Psycho-Social effects

Attitude to the illness

About a third of the study population considered their illness a minor affair. Most of them, 12 patients had a more realistic picture and were of the opinion that though the illness was serious, it did not prevent them for leading a fairly normal life subsequently. The remaining 2 patients, however, appeared overwhelmed by their illness and felt that it was an extremely serious illness which had changed their lives drastically. These 3 types of reactions correspond to the "impulsive", "adapted" and "regression" reactions observed by Degre-Coustry[4]. Despite this divergence of opinion regarding the gravity of the illness, all but one patient had positive attitudes towards recovery of physical fitness.

Dietary changes

After their illness, all but one patient had modified their diets. The majority reduced their intake of both fats e.g. butter, coconut milk and carbohydrates which included staple foods like rice, as well as refined sugar. Table 3 shows the distribution of the study population by change in diet after myocardial infarction.

Table 3

Change in diet	No.
No change	1
Less rice, sugar and fats	13
Less rice and sugar	2
Less sugar and fat	2
Less fat only	2
Total	20

Effect on work

At the time of the survey nineteen of the twenty patients were already 12 weeks post-infarction. It was therefore not too surprising to find that most of them had returned to work. 11 (55%) returned to their same jobs while 6 (30%) changed to lighter jobs. Of these 17 patients who returned to work, 12 of them returned within 12 weeks of their illness; the other 5 returned to work later. Only 3 (15%) were not working — one retired, the second stopped working because his family was worried for his health, while the third was still on medical leave.

Effect on leisure

Apart from changes in working life, modifications in leisure activities which included physical exercise, games, social visits and any hobbies were also observed. 5 (25%) of the patients reduced their leisure activities but the other 15 had either maintained or even increased their participation in leisure activities. If one considered physical exercise and games alone, it was encouraging to observe that nine patients had increased their physical activities after their illness. For those who had reduced their leisure activities, fear that these activities may be too strenuous was the reason most often given.

Effect on sexual activity

In contrast to leisure activities, sexual activity was reduced in 13 patients (65%). One patient had stopped all sexual activity since his wife's death. His cessation of sexual activity therefore is not attributable to the myocardial infarction. A reduction in sexual activity after acute myocardial infarction has been reported by other workers[5 6]. In the present survey only 6 patients had not reduced their frequency of sexual intercourse — 5 of them maintained the same frequency while the sixth even increased his frequency. Table 4 shows the reasons given by patients for a decrease in sexual activity. Table 5 ranks the most important reason for a decrease in sexual activity.

Table 4
(more than 1 reason may be given)

Reason for decreased sexual activity	No.
Patient's anxiety regarding his heart	9
Decrease in libide	6
Spouse's anxiety for patient's health	5
Other reasons	3

n = 13

"Other reasons" consisted of "too tired", "I need more rest" and "I sleep earlier nowadays."

Table 5

Most important reason	No.
Patient's anxiety regarding his heart	5
Spouse's anxiety regarding patient's heart	3
Other reasons	3
Decreased libido	2
Total	13

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