

Risk factor awareness and expectations of outpatients attending the Cardiology Clinic, Universiti Kebangsaan Malaysia

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Summary

One hundred consecutive patients attending the UKM (Universiti Kebangsaan Malaysia) Cardiology Clinic completed a questionnaire enquiring about their own assessment of their knowledge about their illness, their awareness of cardiac risk factors and their expectations in their management. Only 11% of our patients had graduated from tertiary education. 59% of our patients were being treated for ischaemic heart disease. Although only 28% of our patients considered having considerable knowledge of their illness, a majority of our patients were aware of cardiac risk factors. This was independent of the formal education achieved. However this awareness did not necessarily result in appropriate behaviour; 32% of patients admitted to smoking despite being aware of the harmful effects of smoking. 74% of our patients expected a cure from their doctors; only 37% of our patients thought they required medication indefinitely. Thus, patients could be made aware of their illness regardless of their formal educational status. However this may not necessarily result in appropriate behaviour. The high expectations which the patients have of their doctors is unrealistic and may be detrimental to appropriate long-term management of their chronic illness.

Key words: Risk factors, patient awareness, patient education

Introduction

Optimal management of chronic illnesses such as cardiac diseases requires not only adequate medical facilities and personnel but also active participation of patients in the management of their disease. Patient education plays an important role in the latter. Modifiable risk factors, for instance smoking, are common among myocardial infarct patients¹. Yet efforts to remove or control these risk factors have met with variable success²⁻⁴. Lack of patient education may lead not only to problems with compliance, and breakdown in patient-doctor relationship, but also to inappropriate expectations which may then not be fulfilled, disillusionment with modern medicine and acceptance of other forms of therapies such as herbal or traditional medicine. Awareness by the patient of disease processes, including factors which could exacerbate or ameliorate these processes, may be important in achieving patient education.

This study aims at determining the awareness of cardiac risk factors among patients attending the UKM Cardiology Clinic, and also ascertaining their expectations in their management.

Patients and Methods

One hundred consecutive patients attending the UKM Cardiology Clinic completed a self-directed questionnaire enquiring into their own assessment of knowledge about their own illness, their awareness of cardiac risk factors and their expectations in their management. The questionnaires were in English and Bahasa Malaysia. Patients who could not communicate in either language were excluded from the study. The data was analysed by constructing contingency tables and performing the X²test; p<0.05 was taken as statistical significance.

Results

The one hundred patients consisted of sixty-eight Malays, seventeen Indians and fifteen Chinese with a mean age of 48.4 ± 14.4 years. Fifty-one patients were males. Eighty-six patients were review patients while fourteen were new referrals. Seventy-six patients had had previous admissions to hospital for their respective illnesses. Fifty-nine patients attended the Clinic for the treatment of ischaemic heart disease, fifteen for hypertension, twelve for chronic rheumatic heart disease, seven for arrhythmias, five for cardiomyopathy and two for congenital heart disease. Only eleven of our patients graduated from tertiary education, forty-three patients completed secondary school, thirty-four left primary school while twelve patients had never been to school.

Table I shows that only 28% of our patients thought they had substantial knowledge about their illness. Higher educated patients tended to give higher scores to their own assessment of their knowledge about their illness ($p = 0.016$, Table II).

Table I
Patients' knowledge of their condition

Knowledge of Illness	< 25%	25 - 50%	50 - 75%	> 75%
Number of Patients	43	29	18	10

Table II
Patients' education and their own assessment of their knowledge about their illness

Education \ Knowledge of Illness	Never been to School	Primary School	Secondary School	Tertiary Education
< 25%	10	16	13	4
25 - 50%	2	11	15	1
50 - 75%	0	6	8	4
> 75%	0	1	7	2

P=0.016

Fig. 1 shows that a substantial number of our patients were well aware of the cardiac risk factors. The harmful effects of hypercholesterolaemia, smoking, hypertension, inadequate exercise and emotional stress were recognised by more than 80% of our patients. Familial contribution to heart disease was recognised by 52% of our patients. Thirty-four patients reported a similar illness occurring in their members while twenty-eight patients knew of someone outside their family with an illness similar to theirs. Table III shows that patients who have family members with a similar illness scored higher in terms of their own assessment of their knowledge about their condition ($p < 0.007$).

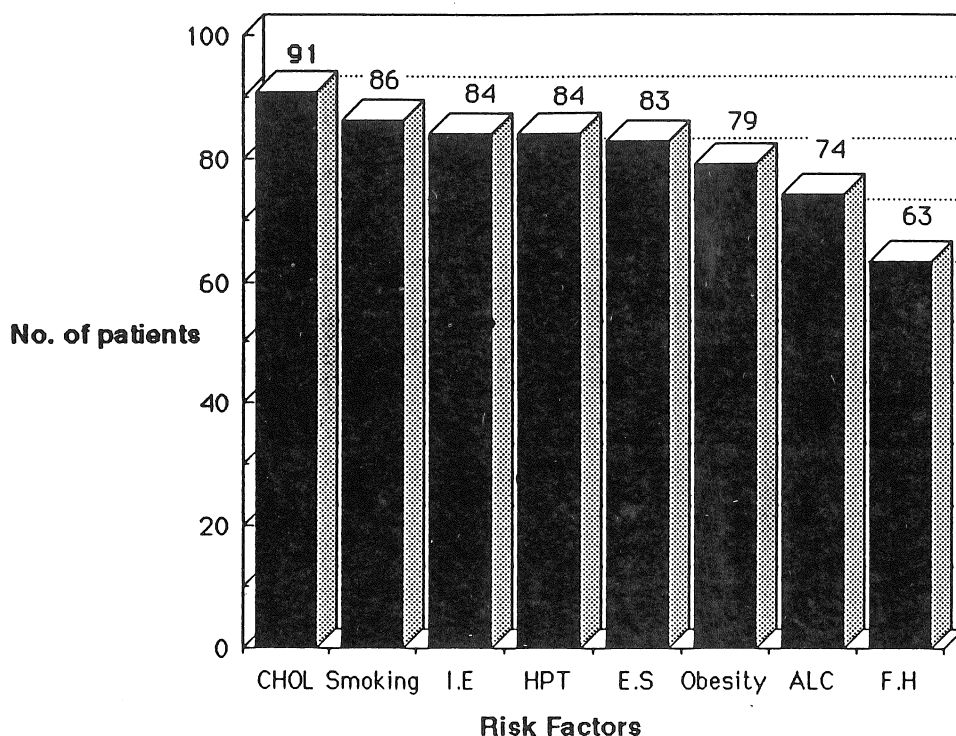


Fig. 1 : Awareness of Cardiac Risk Factors

- CHOL = Hypercholesteroleamia
- I.E. = Inadequate Exercise
- HPT = Hypertension
- E.S. = Emotional Stress
- F.H. = Family History
- ALC = Alcohol Intake

The impact of formal education and patients' own assessment of their knowledge of their condition on patients' behaviour in terms of risk factor management was further delineated. Thirty-two patients admitted to smoking cigarettes, fifteen of whom had stopped smoking. Table IV shows that patients smoked regardless of their awareness of the harmful effects of smoking or of their formal education. Further, the awareness of smoking as a risk factor is independent of the patients' own assessment of their knowledge of their condition or of their formal education (Table V).

Table III
Percentage of knowledge and family history

Knowledge of Illness	Family History	
	Yes	No
< 25%	9	34
25 – 50%	9	20
50 – 75%	8	9
> 75%	8	3

p < 0.007

Table IVA
Awareness of the harmful effect of smoking

Smoking \ Awareness	Yes	No
	Yes	29
No	54	14

p = 0.164

Table IVB
Patients education and smoking

Smoking \ Education	Never Been to School	Primary School	Secondary School	Tertiary Education
	Yes	3	15	12
No	6	19	31	9

p = 0.321

Table V
Patients' awareness and knowledge of their condition

Knowledge of illness \ Awareness	< 25%	25 – 50%	50 – 75%	> 75%
	Yes	50	12	23
No	6	0	5	3

p = 0.500

The distribution of the number of types of medicine prescribed for the patients is shown in Fig 2. Only 18% of our patients were prescribed more than three types of medicine. Of the eighty patients prescribed regular medicine, seventy-four patients reported that they felt better and four patients felt worse with medicine, while two patients thought medicine did not make any difference to their symptomatology. Seventy-nine of the eighty patients claimed that they took their medicines regularly as prescribed.

Seventy-four patients believed that their illness could be cured and this represents their expectation from their attending doctors, while seven patients expected a palliation of their illness and nine patients expected prevention of complications. Only ten patients wanted further explanation about their illness from the attending doctor.

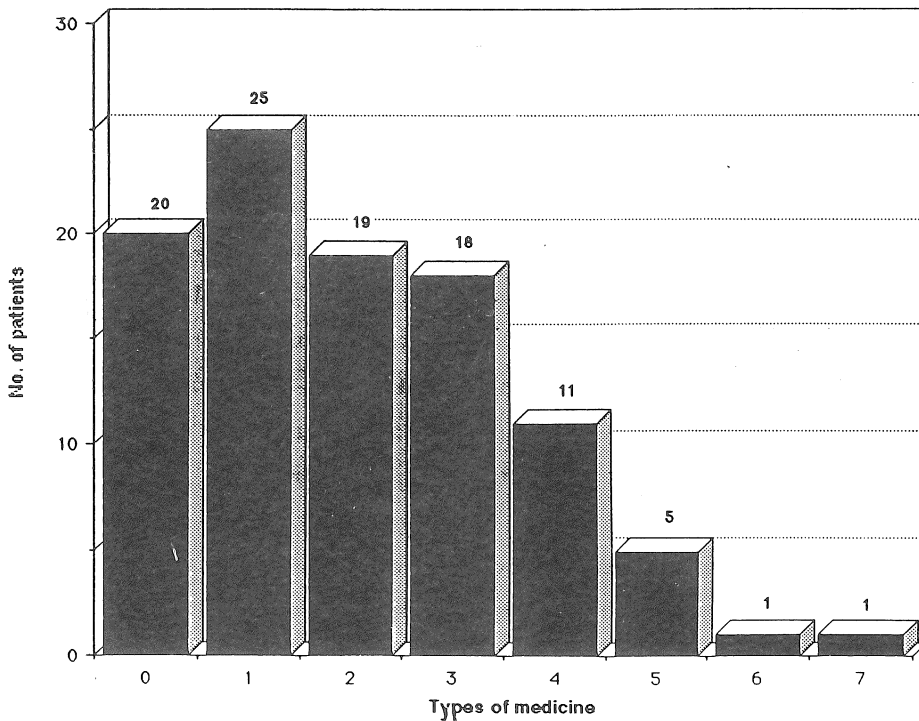


Fig. 2 : Number of types of medicine prescribed

Discussion

Patient education is a major factor in ensuring adequate and appropriate patient participation in the management of their illness. Despite only 11% of our patients were graduates of tertiary institutions, patient education in terms of dissemination of knowledge about their illness could be achieved in most patients irrespective of their educational achievement. Although the higher educated tended to give higher scores in their own assessment of their knowledge of their illness, this does not necessarily mean that they knew better and/or that their awareness leads to appropriate therapeutic behaviour. Probably it reflects that the more educated group was more confident of themselves. The number of patients reporting similar illness among their family members or their acquaintances is surprisingly high (72%). It is possible that these family members or acquaintances may not actually have similar illness as the patient, thus providing an important confounding factor in patient education among our patients. Social influences on disease perception and responses are important to be realised, as these may contribute significantly to health care⁵.

This study further assesses whether patients' awareness of their illness or patient formal education helps in the patients adopting appropriate therapeutic behaviour. One common risk factor, smoking, was taken as an example. The finding that patients smoke regardless of their awareness of the harmful effects of smoking and the fact that smoking is as common among the educated as well as the less educated group is important. Transmission of knowledge to patients about their cardiac illness is possible (even for the less educated patients), but internalising this information so that their behaviour could be appropriately modified is a major challenge for the doctor. Good patient-doctor relationship¹, and continuing health-promotion campaigns⁴ are important in motivating transformation of knowledge to appropriate behaviour. However motivation is a complex issue, requiring not only that the patient is aware of the consequences of his behaviour and life-style, but the health-workers themselves accept health-promotional strategies as part of their professional commitments⁶⁻⁷.

The number of patients expecting 'cure' from their attending doctor is extremely high (74%). This puts a heavy burden on the doctor to accommodate such high expectations as in most instances a 'cure' in cardiac diseases may not be achievable. The patients' concept of 'cure' needs further evaluation as this may influence patients' response to their chronic illness and their continuing management.

Conclusion

Many patients are aware of cardiac risk factors. Thus, dissemination of knowledge and education is achievable in most patients with cardiac diseases regardless of their formal educational achievement. The patients' awareness, however, does not necessarily result in appropriate therapeutic behaviour. Unfortunately, at least in the case of smoking, formal education has little beneficial influence. Patients have a high expectation of their doctors. This is unrealistic and may hamper long-term management of chronic illnesses such as cardiac diseases.

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