

# Disease and Risk Factor Perception Among Patients with Coronary Artery Disease in Kuala Terengganu

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## Summary

One hundred consecutive patients with coronary heart disease attending the Physician Clinic, Kuala Terengganu General Hospital self-completed a questionnaire on their awareness of the coronary risk factors and their perception of their disease. Seventy-one subjects were males. Twenty-seven subjects had never had formal education and only 6 had completed tertiary education. Whilst 52% considered themselves as having less than 25% knowledge about their disease, many were aware of hypercholesterolaemia, emotional stress, inadequate exercise and smoking as risk factors for coronary heart disease. Diabetes and family history were less known as coronary risk factors. Despite their awareness of the risk factors, though, the subjects failed to control these. For example, smoking was prevalent and their awareness of the harmful effects of smoking did not seem to deter them from this habit. Further, formal education did not seem to influence positive health behaviour. In terms of disease perception, the subjects tended to believe that their illness could be cured. Eighty subjects expected a cure from their doctors. Sixty-three subjects wanted more explanation of their illness from their doctors. These findings suggest that efforts should be made to translate patients' awareness of their illness to appropriate health behaviour, and perhaps doctors could achieve this by spending more time explaining to the patients, and educating them.

**Key Words:** Ischaemic heart disease, Coronary risk factors, Patient awareness

## Introduction

The increasing incidence<sup>1</sup> of, and the mortality and morbidity from, coronary artery disease in Malaysia require urgent appraisal of factors which may contribute to this trend. Primary<sup>2</sup> and secondary<sup>3</sup> preventive strategies have been shown to be effective in controlling or even reversing this trend. Patient

participation in the management of their disease, including their effort at reducing and removing any remediable risk factors, is important in the overall management strategy. This may be possible if patients were aware of their risk factors and they have appropriate perception of their disease process. Our earlier study<sup>4</sup> carried out at a teaching hospital among

patients attending a specialist Cardiology Clinic showed that patients were aware of risk factors for coronary artery disease, although this did not necessarily result in appropriate health behaviour. The present study was carried out to evaluate whether such a situation was also common among patients attending a non-teaching hospital.

### Patients and Methods

One hundred consecutive patients with documented coronary artery disease ('ischaemic' changes on ECG, positive exercise tolerance test and/or previous myocardial infarction) attending the Physician Clinic of the Kuala Terengganu General Hospital were enrolled into the study. Patients with ECG changes of left ventricular hypertrophy or bundle branch block were excluded. The enrolled patients were then requested to complete a self-filled questionnaire enquiring into their awareness of risk factors for coronary artery disease and their perception of their disease.

### Results

The 100 patients consisted of 71 men (aged  $55.3 \pm 10.1$  years) and 29 women (aged  $60.3 \pm 9.4$  years). A majority of the men were either engaged in civil service or the fishing industry while most of the women were

housewives. Twenty-seven subjects had never had formal education while 42 were primary school leavers, 25 were secondary school leavers and only 6 were college or university graduates.

Only 16 subjects thought they had substantial knowledge about their disease while 52 subjects thought they knew less than 25% of their disease (Table I). Those with lower level of education seemed to rate lower their knowledge of their disease. Figure 1 shows that awareness of some risk factors was high eg. high cholesterol diet, emotional stress, inadequate exercise, smoking and obesity while diabetes and family history were less well known. While the level of awareness of coronary risk factors was high, this may not be translated into appropriate health behaviour. Sixty-two subjects were, for example, aware that smoking was a risk factor; yet, 48 of them smoked (Table II). Further, formal education did not seem to influence whether a person smoked or not (Table III).

A majority of the subjects (57%) expected that their disease could be cured. Patients' reasons for seeing a doctor were varied; 80% sought a cure, 72% wanted relief from pain, and 44% wanted to avoid complications of their disease, and sixty-two wanted more explanation of their disease from their doctors.

**Table I**  
Level of education of respondents according to knowledge of ischaemic heart disease

Level of Education \ Knowledge about IHD	Never been to school	Primary school	Secondary school	University/ College	Total
<25%	22	24	4	2	52
25-50%	3	3	13	2	32
51-75%	2	2	6	2	14
>75%	0	0	2	0	2
Total	27	42	25	6	100

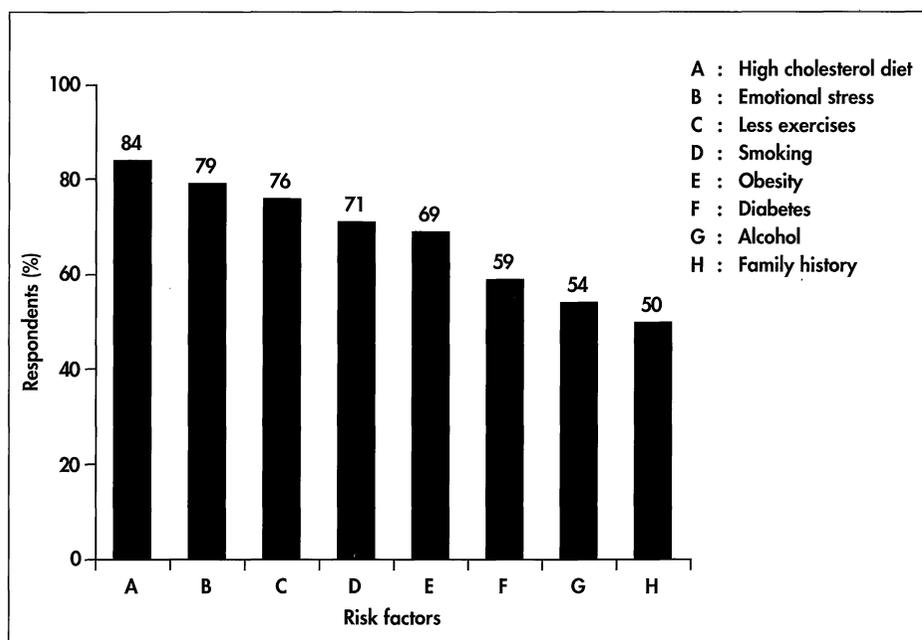


Fig. 1: Awareness of risk factors by the respondents.

Table II  
Smoking habit *vis-a-vis* awareness of smoking as a risk factor for I.H.D.

Smoking habit \ Awareness of smoking as a risk factor	Smoker	Non-smoker	Total
Yes	48	24	72
No	14	14	28
Total	62	38	100

Table III  
Formal education *vis-a-vis* smoking habit

Formal Education \ Smoking	Never been to school	Primary school	Secondary school	University/ College	Total
Yes	14	28	15	5	62
No	13	14	10	1	38
Total	27	42	25	6	100

## Discussion

Findings from this study as regards coronary risk factor awareness among patients show some similarities to our previous study performed at a specialist Cardiology Clinic in a university setting<sup>4</sup>. Patients in Kuala Terengganu had lower level of education as compared to patients who attended our specialist Cardiology Clinic at the University. As previously noted, patients with higher formal education gave higher ratings to their knowledge of their illness. But as pointed out, this may reflect higher self-esteem and self-confidence rather than a true level of disease understanding<sup>4</sup>. Awareness of coronary risk factors among patients in Kuala Terengganu was high, and this was independent of their educational status. Doctors, health workers and the media have perhaps been effective in educating the public as regards to coronary risk factors. The message regarding this important public health issue seems to have been clearly comprehended by the public irrespective of their educational status. However, as previously found, knowledge need not be necessarily translated into appropriate health behaviour. For instance, patients continued to smoke despite their knowledge of the harmful effects of the cigarette smoke. Disappointingly, formal education did not play an influential role here in promoting appropriate health behaviour.

Expectation of what the doctor can and cannot do to one's illness is important to ensure appropriate patient acceptance and compliance to the management regimen proposed by the doctor. As previously observed<sup>4</sup>, patients tend to have very high hopes of their doctors in that a substantial proportion (80%) expected a cure. This may pose considerable difficulties to the health team when patients come to realise that their disease cannot be eradicated (cured) and that they need to be on long-term medication, with its attendant difficulties and possible side effects. Further work need to be done though, to delineate what the patients mean by 'cure'. But perhaps, in this group of patients at least, their perception of the disease process could be 'corrected' by the doctors and the health team as a substantial proportion (63%) of the patients wished that doctors spend more time with them explaining about their disease and its treatment.

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