Prevention of Coronary Heart Disease

Background: Coronary heart disease (CHD) is the leading cause of death throughout the world. PHC doctors are in a unique position to prevent CHD and promote health in the population. However, the perception of PHC doctors on CHD prevention has not been well documented.

Objectives: To explore and examine the perception of PHC doctors on the prevention of CHD.

Subject and method: A questionnaire survey of all PHC doctors attending a continuing medical education (CME) activity in Riyadh city. The questionnaire was designed and piloted with local PHC doctors before being used in this survey.

Results: All the 77 PHC doctors responded (100%) and almost all of them (97.4%) agreed that the primary prevention of CHD was an essential task. Fifty-two participants (67.53%) confirmed that little attention had been paid to the primary prevention of CHD. While the majority of respondents (71.43%) felt that the primary prevention of CHD was an easy task, a significant minority (23.37%) disagreed. Interestingly, 70 (90.91%) respondents were not aware of any local literature on how to achieve primary prevention of CHD and would like to have the literature made available to them. Finally, participants indicated that the percentage prevalence of CHD risk factors among their patients was high.

Conclusion: the findings of this survey confirm a general feeling that the primary prevention of CHD is not being given enough attention. Participants accepted that the primary prevention of CHD was an essential part of their work, but the lack of local literature and research on this vital area was a major concern.

Key Words: Opinion of PHC doctors, Prevention and prevalence of CHD.

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INTRODUCTION

Coronary heart disease (CHD) remains the leading cause of death throughout the world: 30% of all deaths globally are attributed to CHD, and almost half of these deaths occur in individuals below the age of 70.1 This is a great burden on healthcare management.2-11 The contribution of doctors to the promotion of health and the prevention of disease is crucial.12-17 It has been shown that “adherence to life style guidelines involving diet, exercise, and abstinence from smoking is associated with very low risk of coronary heart disease.”2 In fact, scientific statement of the American Health Association (AHA) emphasizes that “if the burden of CHD in American society is to be substantially reduced, primary prevention must be improved.”3

PHC doctors are in a unique position to prevent CHD and promote peoples’ health for a number of reasons. First, they are health care providers on the frontline who deals with the majority of health problems.2 Second, PHC doctors deal with a wide spectrum of health-related problems that individuals of all ages and gender present with.5 Third, PHC doctors as general physicians working in the community must be aware of the scale of the problem and its impact on the community. Fourth, PHC doctors use the bio-psycho-social model in problem solving to deal with the person in a holistic manner and modify the behavior to seek help.6 Fifth, the nature of the work at PHC demands that disease prevention and the promotion of health be part of every encounter between the doctor and his/her patient.7

It is clear therefore, that the commitment of PHC doctors to primary prevention of CHD will certainly reduce morbidity and mortality. No published research was found in Saudi Arabia on the perceptions of PHC doctors on the prevention of CHD. Therefore, the aim of this study was to explore this important subject.

METHODS AND SETTING

This was a cross-sectional survey that targeted all PHC doctors who attended a continuing medical education (CME) activity in Riyadh in February 2009. With the permission of the organizers, all PHC doctors who were participating were asked to fill a semi-structured questionnaire on their opinion of the attention given to the primary prevention of CHD; the role of PHC doctors in primary prevention; and the literature they consult when dealing with primary prevention of CHD. Taking into consideration the time constraints of participating doctors and organizers, the questionnaire was made simple, direct and short enough to be completed in less than five minutes. Participants were asked to fill and return the questionnaire immediately. A pilot study of the questionnaire was conducted with local PHC doctors before being used in this survey.

RESULTS

Total of 77 PHC doctors were involved in this survey with 100% response rate. Table 1 shows age, gender, qualifications and years of experience of the participants. Fifty-two (67.5%) doctors agreed that little attention has been given to the primary prevention of CHD in Saudi Arabia, 9 (11.7%) disagreed and 16 (20.8%) did not know.

| Table 1: Characteristics of participating PHC |
|-----------------------------------------------|
| Variables                                    | No. (%) |
| Age                                          |         |
| <30 years                                    | 3 (3.9) |
| 31-40 years                                  | 44 (57.1)|
| 41-50 years                                  | 30 (39.0)|
| Gender                                       |         |
| Male                                         | 45 (58.4)|
| Female                                       | 32 (41.6)|
| Nationality                                  |         |
| Saudi                                        | 8 (10.4)|
| Non-Saudi                                    | 69 (89.6)|
| Qualification                                |         |
| Board certified                              | 8 (10.4)|
| Diploma / Master                            | 12 (15.6)|
| MBBS                                         | 57 (74.0)|
| Years of experience                         |         |
| 1-5 years                                    | 15 (19.5)|
| 5-10 years                                   | 34 (44.1)|
| >10 years                                    | 28 (36.4)|

Seventy-five (97.4%) of the participants agreed that the primary prevention of CHD was an essential part of the work of PHC doctors while two (2.6%) did not know. On the question of whether the primary prevention of CHD was an easy task for doctors, 55 (71.4%) agreed, 18 (23.4%) disagreed and four (5.2%) did not know. Seventy (90.9%) participants answered ‘No’ to the question: "Are you aware of local literature on how to do primary prevention of CHD?" Only seven (9.1%) answered, ‘Yes’ but could not name or give the reference of the literature. In fact, 70 (91.0%) participants said they would like to have some local literature on primary prevention whereas two said ‘No’ and five ‘Do not know’.

The participants felt that CHD risk factors were very high in the Saudi population and their estimate of percentage of CHD risk factors among Saudis ranged from 20% to 90% (Figure 1).
DISCUSSION
Though the relatively small sample in this survey may limit the extrapolation of results, this is offset by the 100% response rate. Other surveys have reported less than 71% response rate.\textsuperscript{13} This study did not set out to assess a representative sample of PHC doctors. The perception of participants in this survey therefore, may not reflect the perception of the entire population of PHC doctors. A low response rate in representative surveys usually results in a response bias, as only the doctors interested in the subject would respond. Regardless of number and representation, the opinions of PHC providers are important because they form the backbone of any healthcare system.\textsuperscript{5,7,16,17,19} The uniqueness of PHC doctors in primary prevention and health promotion has been explained in the introduction.

The findings of this survey confirm the common observation that little attention has been paid to primary prevention. Giving advice on a healthy diet, regular exercise, and the avoidance of harmful habits should form a simple routine part of every PHC doctor's work. This can make a big difference: “A majority of CHD events among men in USA may be preventable through adherence to healthy lifestyle practices, even among those taking medications for hypertension or hypercholesterolemia.”\textsuperscript{20} In fact, the lack of knowledge of the risk factors of CHD in the Saudi population has worsened by the “inadequate health education given by primary health care services and by the mass media.”\textsuperscript{8} Moreover, published surveys “demonstrate the need to educate the public and patients about the risk of cardiovascular disease and the lifestyles changes that can be made to modify risk.”\textsuperscript{21}

Thus, it is encouraging that almost all PHC doctors (97.4%) in this survey agreed that primary prevention is essential part of their work. This may reflect their commitment to the prevention of disease in their day-to-day work. Focus on prevention is key in the new model of primary care\textsuperscript{7} and the commitment of PHC doctors to this model would facilitate the implementation of preventive programs for CHD in PHCs.

In fact, the majority of respondents agreed that preventive activities on CHD were easy to perform in PHC. However, further studies on this area are required since the questionnaire used in
the survey was designed to discover perceptions rather than evaluate skills. Even though the literature has revealed a gap between the perception of doctors and patient care, the enthusiasm of PHC doctors for prevention has been reported in the area of periodic health examination. Therefore, it is heartening to have evidence of PHC doctors' belief in the primary prevention of CHD and in their ability to achieve it. It is now the responsibility of the managers of healthcare to make the most of this enthusiasm shown by the PHC doctors and give priority to disease prevention and health promotion in order to make the provision of healthcare more cost effective. Cardiac services have been estimated to cost more than 100 billion US dollars in USA. The adoption of preventive programs should reduce this high cost.

Another finding in this survey that deserves attention is the lack of local literature on how to promote primary prevention in PHC. Guidelines from the Framingham study and AHA are available on the Internet but it appears that PHC doctors in KSA would rather have local guidelines. Researchers, academic institutions and scientific societies should look into these important needs. In fact, it is felt that cardiologists should work with PHC doctors to develop simple and practical guidelines that suit the complexity of PHCs and are able to bridge the gap between research and practice. Participants valued courses and CME activities as a means of brining their knowledge up-to-date and improving their practice. This indicates that the quality of CME activities in Saudi Arabia should be improved to ensure the improvement of the outcome for all stakeholders. Drug companies have a major interest in CHD and its risk factors and they can influence doctors in the absence of clear and evidence-based guidelines on how to reduce and prevent CHD in PHC.

The fact that PHC doctors in this survey gave very high prevalence figures of CHD among Saudis indicates a need for studies to accurately calculate risk factors and risk assessment for our population. Available published literature confirms a high prevalence of risk factors of CHD among Saudis. The prevalence rate of 90% given by PHC doctors means there is an urgent need for systematic up-to-date studies on this important issue. In fact, further research is necessary not only to validate the findings of this study but also to explore further the role of PHC doctors in preventive medicine.

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