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Hypercholesterolemia and 5-year risk of development of coronary heart disease among university and school workers in Jeddah, Saudi Arabia.

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Abstract

BACKGROUND: A study was performed among university and school employees as a step in detecting the prevalence of coronary heart disease (CHD) risk factors among school and university staff and the relation of the various risk factors to hypercholesterolemia and to predict the 5-years probability of development of CHD.

METHODS: All university staff and a sample of school workers in Jeddah were included in the study. Data were collected by interview and self-administered questionnaires, as well as by direct observation and measurement of weight, height, blood pressure, and total blood cholesterol. Logistic regression analysis was performed to identify the impact of various risk factors on hypercholesterolemia. The 5-year risk of development of CHD was calculated to identify the proportion at highest risk.

RESULTS: Some CHD risk factors were detected among the participants as 18.8% were current cigarette smokers, around half were classified as overweight, and 19.9% were classified as hypertensive. Hypercholesterolemia was present in 10.1% and was significantly related to older age (40 years and over) and place of work. The estimated risk of CHD in the coming half-decade for those classified in the fifth quintile was 0.068. The Q(5)/Q(1) ratio has shown that those classified in the fifth quintile were at 3.6 times more risk of developing CHD in the coming 5 years than those classified in the first quintile.

CONCLUSION: CHD risk factors are becoming prevalent in our society. The risk of development of CHD in the coming decades is not trivial. Short- and long-term health strategies are recommended to decrease the risk of CHD and improve the quality of life