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PUBLIC AWARENESS TOWARD HEART DISEASE AND ITS RISK FACTORS AMONG GENERAL POPULATION, SAUDI ARABIA

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Abstract:

Background: Heart diseases especially coronary artery diseases is the number one causes death worldwide according to World Health Organization (WHO). Ministry of Health (MOH) in Saudi Arabia reported that cardiovascular diseases (CVD) are the cause of more than 40% of the non-communicable diseases in 2010. Primary preventive measures should be taken from early life to reduce cardiovascular diseases by modifying risk factors, such as healthy diet, avoidance smoking and regular exercise.

Methods: A descriptive cross-sectional study based on questionnaires that distributed randomly among general population, Saudi Arabia. The study was conducted during the period from January to February 2019. The total sample obtained was 450 Saudis participants. A self-administered questionnaire about heart disease risk factors awareness was filled by participants.

Results: Majority of included participants were aged 20- 30 years old (36.7%) then whom aged 31-40 years old (28.4%). Most of the participants agreed being overweight increases a person's risk for heart disease (90%), smoking is a risk factor for heart disease (83.1%), high cholesterol is a risk factor for developing heart disease (73.3%), and high blood pressure is a risk factor for heart disease (66.2%).

Conclusion: More campaigns are needed that focus on diet, exercise and the risk factors of heart disease. Lifestyle changes such as modifying dietary habits can benefit those who are at risk of developing heart disease.

Keywords: *Heart diseases, Awareness, Risk factors, Cross sectional, Saudi Arabia.*

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INTRODUCTION:

Cardiovascular diseases (CVDs) are diseases of heart and blood vessels. Heart diseases especially coronary artery diseases is the number one causes death worldwide according to World Health Organization (WHO) (1). Heart attacks mainly caused by a blockage that prevents blood from flowing to the heart. The most common reason for this is a build-up of fatty deposits on the inner walls of the blood vessels that supply the heart (3). Since decades, heart diseases had been the number one leading to death in both genders in the United States. Coronary heart disease (CHD) is the most common type of heart disease which killing over 370,000 people annually in United States (2). Ministry of Health (MOH) in Saudi Arabia reported that cardiovascular diseases cause more than 40% of death in non-communicable diseases in 2010. Also, it reports that the number of patients with cardiac diseases in the primary health centers more than 150 thousand patients of both males and females.

There are risk factors make some people are at greater risk of cardiovascular disease than others such as hypertension, diabetes, dyslipidemia, obesity, smoking, physical activity and poor diet (2,3). People in low- income countries often do not have primary health care programmed for early detection and treatment of risk factors compared to people in high-income countries thus, low- income have more prevalence of heart diseases compared to high-income (1).

Two main categories for risk factors, non- modifiable and modifiable risk factors. Non- modifiable risk factors such as family history, age and sex. Modifiable risk factors such as cigarette smoking, hyperlipidemia, hypertension, uncontrolled blood sugar, physical inactivity and obesity (4).

It was estimated that 23 million people will die by 2030, because of cardiovascular dis- ease. high blood pressure, high cholesterol level, high Blood glucose level, smoking, obesity and physical inactivity are conventional risk factors (5).

This study aimed to assess the general knowledge towards heart diseases and its risk factors.

METHODS:

A descriptive cross-sectional study based on questionnaires was distributed randomly among general population, Saudi Arabia. The study was conducted during the period from January to February 2019. The total sample obtained was 450 Saudis participants. A self-administered questionnaires about heart disease awareness was filled by participants. Questionnaires consist of participants' personal information, knowledge towards heart disease such as symptoms and risk factors. Data entering and analysis was done by using SPSS.

RESULTS:

Table 1 showed personal information of the participants. Participants were classified to four categories according to the age, most of them aged 20- 30 years old (36.7%) then whom aged 31-40 years old (28.4%) and whom over 50 years old were only (13.8%). Male were more than female (53.3%) and (46.7%) respectively. The majority of participants have bachelor degree (62.9%), and (31.8%) have school degree while illiterate were only (5.3%).

Table 2 showed percentage of correct answered questions. The majority of participants showed right answers and were aware about some of the risk factors of heart disease. The majority agreed to the following statements: (Being overweight increases a person's risk for heart disease (90%), smoking is a risk factor for heart disease (83.1%), high cholesterol is a risk factor for developing heart disease(73.3%), and high blood pressure is a risk factor for heart disease(66.2%). In addition, (81.1%) agreed that regular physical activity will lower the risk of getting heart disease. (42.2%) agreed if they have a family history of heart disease they are at risk for developing heart disease, and (69.3%) agreed that if a person increased in age, he is at increased risk for developing heart disease. Two-third of participants know that diabetes mellitus is a risk factor for heart disease (68.9%).

Table 1: personal characteristics of participants (N=450).

Character		NO/%
Age	20-30	165(36.7%)
	31-40	128(28.4%)
	41-50	96(21.3%)
	More than 50	61(13.8%)
Gender	Male	240(53.3%)
	Female	210(46.7%)
Education	School degree	143(31.8%)
	Bachelor degree	283(62.9%)
	Have not been in school	24(5.3%)

Table 2: level of awareness among participants (N=450).

Question	yes	no
1.If you have a family history of heart disease you are at risk for developing heart disease	190(42.2%)	260(57.8%)
2. The older age is higher risk of having heart disease	312(69.3%)	138(30.7%)
3. Smoking is a risk factor for heart disease	374(83.1%)	76(16.9%)
4. High blood pressure is a risk factor for heart disease.	298(66.2%)	152(33.8%)
5. High cholesterol is a risk factor for developing heart disease	330(73.3%)	120(26.7%)
6. Eating fatty food increases blood cholesterol levels	435(96.7%)	15(3.3%)
7. Being overweight increases a person's risk for heart disease.	405(90%)	45(10%)
8. Regular physical activity will lower the chance of getting heart diseases	365(81.1%)	85(18.9%)
9. Diabetes Mellitus is a risk factor for developing heart disease	310(68.9%)	140(31.1%)

DISCUSSION:

Heart diseases especially coronary artery diseases is the number one causes death worldwide according to World Health Organization (WHO) (1). There is no sufficient studies done to evaluate the knowledge and awareness of heart disease risk factors. Most of participants aware of heart diseases risk factors such as eating fatty food, smoking, diabetes mellitus and hypertension (96.7%, 83.1%, 68.9% and 66.2%) respectively. It conflicted with findings reported in another study and it showed that the participants were unaware of comorbid conditions like diabetes and hyperlipidemia (6). In addition, Another study reported overweight as considered a major risk factor (100%) for heart disease by the participants followed by high cholesterol level (98%) ,high blood pressure level (94%) and smoking (92%) (7). In this study, (81.2%) agreed to that as regular physical activity will lower risk of getting heart disease . similar findings reported, as regular physical activity (90%) were considered as factors that help lower chances of developing heart disease, by the participants(7). In this study, (69.3%) agreed to that if a person increased in age, he is at increased risk for

developing heart disease, while another study reported few participants were unaware of older age being a greater risk factor (10%). This study showed that (42.2%) of participants think if they have a family history of heart disease they are at risk for developing heart disease, while another study showed little bit less percentage (32%).

CONCLUSION:

More campaigns are needed that focus on diet, exercise and the risk factors of heart disease. Lifestyle changes such as modifying dietary habits can benefit those who are at risk of developing heart disease.

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