

# Awareness on risk factors of cardiovascular disorders – A survey

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## **ABSTRACT**

*Cardiovascular diseases (CVD) are conditions that affect the structures or functions of the heart such as abnormal heart rhythms, or arrhythmias, aorta disease, Marfan syndrome, congenital heart disease or it can be coronary artery disease as well. Adequate awareness of CVD and their risk factors and understanding the consequence of cardiovascular disease is of great importance for CVD prevention and control. Questions were prepared and administered to 120 participants through survey planet link. The study population were college students of age group between 17 to 22 years. 74.5% of the survey population were aware of the risk factors associated with cardiovascular disorders. 88.8% of the participants agreed that smoking may more likely to develop heart disease. 83.8% of them agreed that maintaining blood pressure under control may reduce the chance of developing CVD. From the above survey conducted, 81.1% of the college students were aware about the risk factors, symptoms associated with CVD. Even among them 56.2% of the survey participants know the preventable measures to be taken before developing CVD. More awareness may be created on lifestyle modifications among college students to prevent CVD.*

**Keywords:** Cardiovascular disease, arrhythmias, congenital heart disease.

## **I. INTRODUCTION :**

Cardiovascular diseases are conditions that affect the structures or functions of your heart such as abnormal heart rhythms, or arrhythmias, aorta disease, Marfan syndrome, congenital heart disease or it can be coronary artery disease also. According to WHO, the heart disease especially coronary heart disease is the leading cause for the death globally (1). The use of tobacco products and unhealthy diet are prominent habits that increase the risk of CVD. It especially affects almost half of the middle aged men and one third of the middle aged women in the developing countries (2) It should be noted that the burden of CVD risk factors is significantly high in the Middle Eastern region .The mean age for CVD in the middle east has been found to be 10 years younger than the mean age of the world

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wide (3): Adequate awareness of CVD and their risk factors and Understanding the consequence of cardiovascular disease is of great importance for CVD prevention and control. (4)

Despite the high prevalence of this potentially detrimental condition, many college students are not fully aware of its contributing factors (5). People can take the following steps to prevent some of the conditions within CVD (i.e) managing the body weight, doing regular exercise, following a heart – healthy diet like intaking of food that contain polyunsaturated fats and omega -3 such as oily fish , alongside fruits and vegetables can support heart health and reduce the risk of CVD. CVD risk factors were evaluated according to the gender and their BMI status.(6) Globally CVD accounts for 31 % of mortality , the majority of this in the form of CHD and cerebrovascular accidents . The World Health Organization (WHO) estimate that over 75 % of premature CVD is preventable and risk factor amelioration can help reduce the growing CVD burden on both individuals and health care providers. (7) Autopsy result have evidently shown that developing CVD in the later years are really inevitable. (8) The risk factors of CVD includes dyslipidaemia ,smoking, hypertension ,diabetes ,abdominal obesity. (9)

The AHA recommend the Dietary approaches to stop diet which has content of sugars and saturated fats but it is high in vegetables, fruits and whole grains. This is one of the method that we can use it for reducing blood pressure and low density lipoprotein cholesterol which are one of the individual risk factors of developing CVD. (10) There are many evidences that clearly shows that industrially produced transfats are casually linked to CHD. (11) Smoking has long been known as the major risk factor for CVD, European data indicates that smoking doubles the 10 year CVD mortality rate. (12 ) Homocysteine is a known atherogen , but lowering therapies have not demonstrated a reduced CVD. (13)

Even the other authors like Chinju George and G .Andhuvan , conducted a population based study for the awareness of CVD . Their population – based study was carried out in people above 30 years of age. In their study 48 % of the total population were aware about the risk factors associated with CVD.

But CVD now a days , are most prevalent among teenagers because they don't follow heart healthy lifestyle . So the survey about the awareness related to the risk factors associated with CVD was conducted among college students. The aim of this study is to create awareness on the risk factors of cardiovascular disorders among college students.

## **II. MATERIALS AND METHOD:**

Self administrated designed was designed based on awareness. The questionnaire was distributed through on online survey planet link the study population included college students belonging to 17- 22 years age group .The participants where explained about the purpose of study in detail. The questions where carefully studied and the corresponding answers were marked by the participants .The data was collected and statistically analysed.

### III. RESULTS AND DISCUSSION :

The survey was conducted among the college students and this survey comprehensively demonstrated the current level of public knowledge about the awareness of the cardiovascular disorders, the warning symptoms of the heart attack or stroke and CVD risk factors. The concepts measured in this questionnaire is related about perception of CVD risk , possibility of a change in CVD outcomes and perceived benefit regarding the lifestyle modifications.

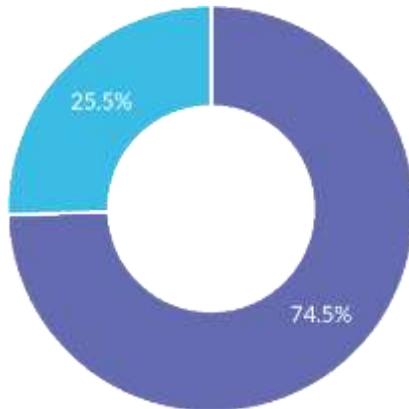
In the survey conducted among college students 81.1% of the students were aware about the cardiovascular disorders and 18.9% of the students were not aware of cardiovascular disorders. In the comprehensive study that was taken many of the college students (i.e) 74.5% were aware of the risk factors of cardiovascular disorders and 25.5% were not aware about the risk factors of CVD [FIG : 1] . Many college and university students agreed that the person who smokes is more likely to develop heart disease (i.e) 88.8% of the students approved it and 11.2% disapproved that the smokers are not prone to heart disease [FIG:2] , which can be comparable to the results of the Initiative for Cardiovascular Service in the Primary Healthcare done in 2013 in Lebanon (14).

83.8 % of the total percent have proved that the maintaining of blood pressure under control will reduce a person's chance of developing CVD and 16.2 % disapproved this statement [FIG : 3]. 85 % of the college students have agreed that maintaining a heart healthy life style will lower the chance of developing the heart disease [FIG : 4]. 87.9% of the survey population have suggested that the person with high cholesterol is more likely to develop heart disease and 12.1% of the people have disapproved for this statement . In the survey that was taken 84% of the participants agreed that obese person has more chance of developing heart disease and 16 % disapproved it .

Similar results were obtained in 2013 in Yamout et al.'s study (15) , trans fat consumption ranged from  $\approx$  0.2 to 6.5% (global mean: 1%) of energy; dietary cholesterol consumption ranged from  $\approx$ 97 to 440 mg (global mean: 228 mg) per day. (16) Similar to the study, 77.1% of the college students population have suggested that consuming more quantity of trans fat food will have greater chance of developing CVD And 22.9% have disapproved .

Diet is thought to play a significant role in CVD risk but the evidence regarding its use is not clear, nor are the guidelines overwhelmingly consensual. (17) Even in the survey that was conducted, 78.1% of the survey population clearly proved that unhealthy diet is also an important parameter for developing CVD. Even 76% of the survey population have suggested that taking more amount of dietary fibers will lowers the blood cholesterol level and ultimately reduces the chance of getting CVD. Benefit of aspirin therapy for preventing cardiovascular events in patients with ACS has been definitively demonstrated in several trials. (18, 19 ) Related to this study, 56.2% of the college students were aware that taking aspirin will reduce the risk of getting heart attack and 43.8% of the population were not aware of it. Recent data from the National Registry of Myocardial Infarction [one of the CVD ] showed that in-hospital mortality after an acute MI decreased more in women than in men between 1994 and 2006; the absolute reduction was 3 times larger in women than in men <55 years of age (2.7% versus 0.9%). (20) But in contrary to this study, in our survey 66.7% has polled for the males are more prone for CVD than females and 33.3% of them polled for females are more prone to CVD than males.

50.9% of the survey population have proved that CVD is not a heredity disorder and 49.1% of them have contrary aspect regarding this topic. There is a strong association between socio economic status and CVD, while diet may represent an important explanatory factor for this association, as diet quality and variation follows a gradient across the socioeconomic spectrum, with the most advantaged social groups enjoying a favourable effect in terms of CVD risk. (21)

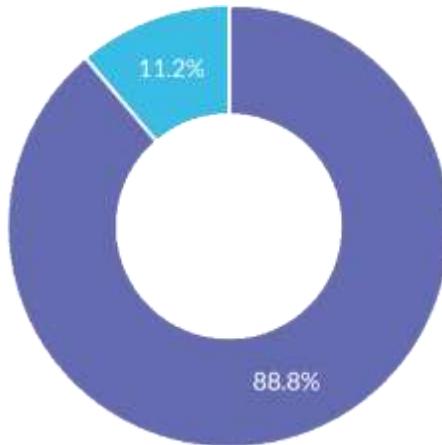


**FIG : 1**

ARE YOU AWARE OF RISK FACTORS OF CARDIOVASCULAR DISORDERS ?

YES

NO

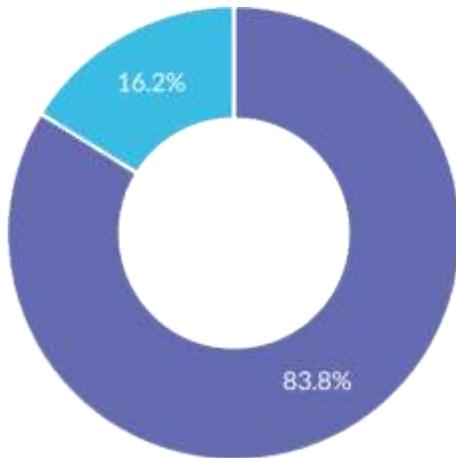


**FIG :2**

DO YOU REALLY THINK THAT A PERSON WHO SMOKES IS MORE LIKELY TO DEVELOP HEART DISEASE?

YES

NO

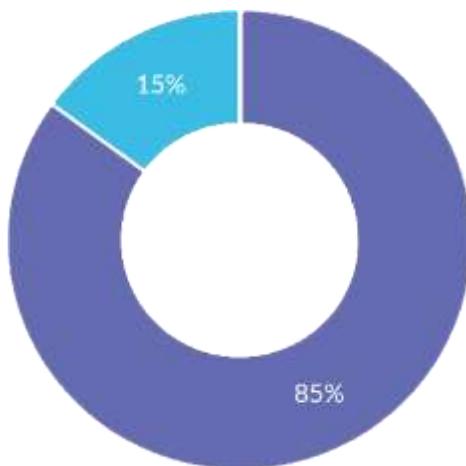


**FIG :3**

DO YOU THINK THAT MAINTAINING BP UNDER CONTROL WILL REDUCE A PERSONS CHANCE OF DEVELOPING CVD ?

YES

NO



**FIG :4**

MAINTAINING A HEALTH LIFESTYLE WILL LOWER THE CHANCE OF DEVELOPING HEART DISEASE ?

YES

NO

#### **IV. CONCLUSION:**

Adequate awareness of cardiovascular diseases (CVD) and their risk factors may help reduce the population's exposure to modifiable risk factors and thereby contribute to prevention and control strategies. This knowledge will inform individuals on healthy attitudes to adopt and to be proactive in reducing their own lifetime risk by plummeting their exposure to modifiable risk factors for CVD. Awareness camps, seminars, workshops may be conducted to create awareness on life style modifications required to lead a healthy life style.

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