

A population based study on awareness of cardiovascular disease risk factors and preventive measures in a Rural Community

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Objective: To assess the level of Knowledge and Awareness of Cardiovascular Disease Risk Factors in a selected population.

Methodology: This population based study was carried out in people 21-80 years of age of both genders in a rural community. A structured questionnaire was used during face to face interview with the participants. Data were analyzed by using SPSS version 20.

Results: Individuals thought that three risk factors, which were cigarettes smoking, stress and hypertension can bring about heart diseases.

They, however did not think about eating habits and activities which were advantageous to keep away from heart diseases.

Conclusion: The level of awareness regarding cardiovascular diseases was not satisfactory. There is need for increasing awareness and knowledge among the population utilizing community based education programs. (Rawal Med J 201;42:404-407)

Keywords: Cardiovascular disease, risk factors, awareness.

INTRODUCTION

Problems such as arteriosclerosis, ischemic heart disease and hypertension are common diseases.¹ The American Heart Association (AHA) divides Coronary heart disease (CHD) risk factors into two categories: modifiable and non-modifiable. Heredity, age and gender are Non-modifiable CHD risk factors and Modifiable CHD risk factors are diabetes hypertension high lipid level, obesity and overweight, smoking and physical inactivity.² Atherosclerosis is a condition that involves a plaque development in the wall of arteries. Literature reveals that no less than 80% of Cardiovascular disease (CVD) could possibly be prevented by embracing healthy lifestyles.³ It has been anticipated that these ailments will increase quickly in India and this nation will be host to more than a large portion of the instances of coronary illness in the world.⁴ Heart diseases account for around 35-40% of the total disease burden in Pakistan. Morbidities occurred if People do not have knowledge regarding risk factors and preventive measures. The purpose of our study was to assess the knowledge and awareness about heart diseases among people of Ali Raza bad community.

METHODOLOGY

In this cross sectional study, convenient sampling

technique was used and included 102 respondents. The study was conducted in Ali Raza Abad rural community from February 2015 to March 2015 and included both male and females ages of 21-80 years. Subjects less than 20 years and more than 80 years were excluded from the study. An informed consent was taken from all participants.

A close ended survey questionnaire was used which was in Urdu language. All questionnaires were completed and data were collected from home to home. Data were analyzed using SPSS version 20.

RESULTS

Out of 102 respondents, 51.0% were between 20-30 years of age, 25.5% were 31-40 years of age, 16.7% were 41-50 years of age and 6.9% belongs to 51-60 year of age. Mean age was 1.7941 ± 0.95791 years. Among the responders, 33.3% were male and 66.7% were female. There was association between age and awareness regarding heart disease.

Table 1. Heart disease, age and heredity.

		Heart disease is hereditary.			Total	P Value
		Yes	No	Don't know		
Age	20-30	26	18	8	52	.044
	31-40	6	12	8	26	
	41-50	8	6	3	17	
	51-60	1	6	0	7	
Total		41	42	19	102	

Only 34 respondents were having knowledge regarding that age is the risk factor of heart disease. Only 41 respondents were having knowledge that heart diseases can be inherited. The reaction to the inquiry that male has a larger number of propensities to coronary illness than female demonstrated that only 42% subject was having awareness. 84% responder said yes they have knowledge in regards to that smoking is a risk factor of heart diseases. Table 2 shows participants awareness regarding risk factors.

Table 2. Awareness about risk factors of heart diseases.

Questions	Number	Percentage
Age is the one risk factor consider for heart attack		
Yes	34	33.3
No	42	41.2
Don't Know	26	25.5
Heart disease is hereditary		
Yes	41	40.2
No	44	43.1
Don't know	17	16.7
Male have more tendency to heart disease than male		
Yes	42	41.2
No	12	11.8
Don't know	48	47.1
Smoking is risk factor for heart attack.		
Yes	84	82.4
No	10	9.8
Don't know	8	7.8
Do you think taking alcohol can lead to heart disease?		
Yes	27	26.5
No	30	29.4
Don't know	45	44.1
The most important cause of heart attack is stress.		
Yes	90	88.2
No	5	4.9
Don't know	7	6.9
High blood pressure increases the risk of getting heart disease.		
Yes	67	65.7
No	8	7.8
Don't know	27	26.5
High cholesterol level can lead to heart attack or increase the risk of heart disease		
Yes	47	46.1
No	4	3.9
Don't know	51	50.0
people who have diabetes are at higher risk of getting heart disease		
Yes	45	44.1
No	9	8.8
Don't know	48	47.1
Being overweight/obesity is one of the cause of heart attack.		
Yes	44	43.1
No	3	2.9
Don't know	55	53.9

With respect to eating, a great deal of red meat/fatty food increase the danger of heart disease, 44% responder were having knowledge. While 21 responders were having knowledge that eating a high fiber diet expands the danger of getting coronary illness. Walking and gardening are considered types of exercise that can lower heart disease risk.

Table 3. Awareness about preventive measures of heart diseases risk factors.

Eating a lot of red meat/fatty foods increase the risk of heart diseases		
Yes	44	43.1
No	3	2.9
Don't Know	55	53.9
Eating a high fiber diet increase the risk of getting heart disease.		
Yes	21	20.6
No	13	12.7
Don't know	68	66.7
Walking and gardening are considered types of exercise that can lower heart disease risk.		
Yes	45	44.1
No	1	1.0
Don't know	56	54.9
The healthiest exercise for heart involves rapid breathing of a sustained period of time		
Yes	39	38.2
No	13	12.7
Don't know	50	49.0

The healthiest exercise for heart involves rapid breathing for a sustained period of time. Responses to this question are 39% responded yes, 13% no and 50 said don't Know. Responses to these questions showed that responders have no awareness regarding exercises (Table 3).

DISCUSSION

We found that awareness about heart diseases was much less among the people of Ali Raza Bad community. In our study, positive responses were significantly less. Lack of awareness was apparent when we analyzed the responses of the questions. Only 44% knew that fatty foods increase risk of heart diseases is contrast to the finding of a study

from Karachi in which 92% had good knowledge about the association of fatty food consumption with heart diseases.⁵ Our study findings are similar to a study conducted in America in which 84 responders were having no knowledge regarding the role of diet in cardiovascular diseases.⁶

Our study findings are opposite to a study from India in which overweight was considered as a major risk factor (100%) for heart disease followed by high cholesterol level (98%) and opposite to a study from America.⁶ Our study finding similar to a study from India in which high blood pressure level (94%) and smoking (92%).¹ Few participants were unaware of older age being a greater risk factor (10 while some participants did not know family history of heart disease (32%) %) is similar to our study results shows that people were having no knowledge regarding risk factors and only smoking and blood pressures considered risk factors.²

In our study, responders had no knowledge regarding diabetes associated with heart diseases. This is similar a study from Singapore and Abbottabad.^{2,3} Only 39 responder had knowledge that exercises help in prevention of cardiovascular diseases; this is similar to a study conducted in Karachi in which only 25% knew about the protective effect of exercise and opposite to the study conducted in America and Belgium.^{1,3} Our study finding shows that people were aware only of three risk factors which are similar to a study conducted in Abbottabad in which 43 responders having knowledge about three risk factors.²

To improve masses awareness, Health Care Workers, Basic health unit and other health care professionals need to spread information regarding heart diseases to people who visit the Health care centers. Frequent health education programs in the community to increase awareness regarding non communicable diseases like diabetes mellitus, hypertension which leads to heart diseases should be arranged.

CONCLUSION

The study found that level of awareness regarding cardiovascular diseases in this community was suboptimal. Educational and community-based programs are most likely to succeed in improving

health and wellness when they address influences at all levels and in a variety of environments/settings.

ACKNOWLEDGEMENTS

Authors would like to express their sincere gratitude to the Principle Muhammad Afzal, Lahore School of Nursing, for providing an opportunity for conducting this research. Thanks to our teachers Roubina Kousar and Muhammad Shahid Riaz.

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Conflict of Interest: None declared

Rec. Date: Jan 17, 2017 Revision Rec. Date: Apr 9, 2017 Accept Date: May 2, 2017

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