KNOWLEDGE, ATTITUDE AND PRACTICE SURVEYRELATED TO THE DETERMINANTS OF CARDIOVASCULAR DISEASE FROM HOUSEHOLD WOMEN OF AGE >18 YEARS

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ABSTRACT

Objective(s): The aim was to find the levels of Knowledge, Attitude and Practice determinants of cardio vascular disease from house hold women of age < 18 years. 426 participants were selected, the sample size was calculated using a non-probability convenient sampling technique. The data was collected through a pre-tested . questionnaire, which had sections for demographic, knowledge attitude, and practice dataAll data was analyzed with SPSS software version 24. Mean ± SD was calculated for descriptive analysis .Frequencies and percentages were used in frequency table presentation of the qualitative data. All findings were estimated at a confidence interval of 95 percent.

Results: 83.6% of the participants had good knowledge of CVD, 60.8 % of the participants had neutral level of attitude towards CVD, 80.0% of the participants had bad levels of practice towards CVD.

Conclusion(s): More knowledge and awareness is needed. Patients need to develop positive attitude and better practice, which may be motivated by family members and healthcare providers for better lifestyle choices and practices.

Keywords: cardiovascular disease, household women, knowledge, attitude, practice.

INTRODUCTION

Low- and middle-income nations account for over 80% of the worldwide burden of CVD death. CVD causes over half of all fatalities in high-income nations and roughly a quarter of all deaths in low- and middle-income countries. United States has an estimated 62 million people with cardiovascular disease and 50 million with hypertension. In the past, cardiovascular disease was responsible for nearly 946,000 deaths, making 39% of all deaths due to CVD in the United States.[1,2]

In the United Kingdom, the most common cause of death in females was CVD, but not for men as cancer was more prevalent there. Overall, men have approximately three times the number of myocardial infarctions as

women. Despite dramatic reductions in death rates in the UK, CVD remains a severe burden in respect to both health and costs.[3]

The risk of disease and prevalence is the same for Asia, making CVD the number one burden.The number of persons at high risk of cardiovascular disease is growing; current cohort studies show that just 2%-7% of the general population has no risk factors at all, and more than 70% of those at risk have multiple risk factors.[4,5] There are many risk factors of cardiovascular disease. Some of the risk factors include unhealthy nutrition, inactive lifestyle, dyslipidemia, and hyperglycemia, high blood pressure, being obese, smoking, kidney dysfunction, genetics and considerations of specific populations (older age, race/ethnicity, and gender differences).[6]

CVD risk factors become more prevalent with age, and these risk factors are frequently neglected as a source of cognitive changes that are normally assumed to be part of the "natural" ageing process. Even at risk, levels considered subclinical by current diagnostic convention, associated cognitive alterations are recognized, and they are frequently significant enough to interfere with everyday functional abilities. More critically, if not treated, CVD risk can progress to cerebrovascular illness and dementia. Although it is commonly accepted that cardiovascular disease (CVD) can cause cognitive decline, it is becoming obvious that actual CVD risk factors, such as high blood pressure, diabetes, and obesity, are also linked to changes in brain structure and cognition.[7,8]

Material and methods:

Study design, duration and setting

This analytical cross-sectional study was conducted between august 2022 and November 2022. A sample of 426 people were selected from General population of Gujrat district of Pakistan who agreed to participate in the study.

Inclusion/exclusion:

House hold females with age <18 who were willing to particupate were selected from General population. Exclusion criteria included males, working women, age less than 18 years female, deaf or dump or mentally retarded females.

Ethical approval and Consent

Ethical approval was taken from Institutional Review Board (IRB) of University of Lahore, Punjab, Pakistan. An informed was taken from the participants before collecting data. Ensured that data would be used for only research purpose. The research project was approved by research and ethics committee of University of Lahore

- **Data collection procedure and tools**

426 number of participants were included according to the inclusion and exclusion criteria set by ethical committee of university of lahore in this cross-sectional study. The sample size was calculated using a non-probability convenient sampling technique. Written consent was taken from the participants and the significance of the study was explained before filling the questionnaires. A knowledge, attitude and practice questionnaire was used to collect data.

Statistical analysis:

Data was entered and analyzed using Statistical Package for Social Sciences (SPSS) software version 24. For descriptive analysis, mean and standard deviation was calculated for quantitative variables whereas frequencies and percentages were calculated for qualitative variables. For inferential statistics, Chi-square test was applied. All results were calculated at 95% confidence interval and p-value ≤ 0.05 was considered as significant value.

Results:

During this study period, 426 number of participants will be included in this cross-sectional study. The sample size was calculated using a non-probability convenient sampling technique. The data is collected through a pre-tested questionnaire, which had sections for demographic, knowledge attitude, and practice data 83.6% of the participants had good knowledge of CVD, 60.8 % of the participants had neutral level of attitude towards CVD, 80.0% of the participants had bad levels of practice towards CVD.

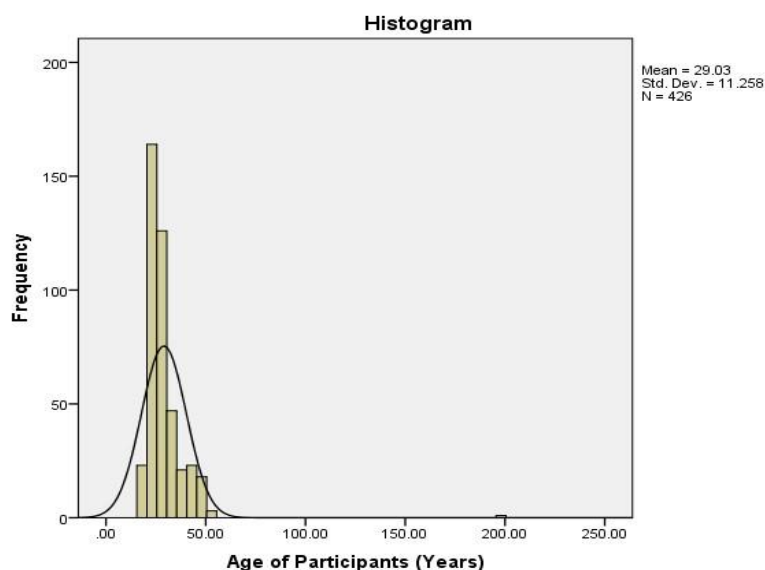**Fig1. Age of participants in each age group**

Figure 1: describing the frequency of age of patients participating in this study. It reveals that 426 patients took part in research, mean age of participants was 29.03 and standard deviation was 11.2 who were involved in the study to check their level of knowledge, attitude and practice.

Table 1 : Level of knowledge among participant

			Frequency	Percent
Valid	(Good) 20-12		356	83.6
	(Fair) 28-21		69	16.2
	(Poor) 36-29		1	2.
	Total		426	100.0

Table 2: shows the level of knowledge among participants related to CVD among household women. Majority of the participants (n=356) fell under the 12-20 category which meant good knowledge. There were 69 participants who fell under the Fair knowledge category and there was only 1 participant who fell under the poor knowledge category.

Table 2: Level of attitude among participants

	Frequency	Percent
(Negative) 12-28	3	7.
(Neutral) 29-44	259	60.8
(positive)45-60	164	38.5
Total	426	100.0

Fig 2: shows the level of attitude among participants related to CVD among household women. Majority of the participants (n=259) fell under the 29-44 category which meant neutral attitude. There were 164 participants who fell under the 45-60 category which meant a positive attitude towards CVD. There were only 3 participants who fell under the 12-28 category which meant Poor attitude.

Table 3: Level of practice among participants:

		Frequency	Percent
	(Bad) 16-7		80.0
	(Weak) 26-17	19	4.5
	(Good) 35-27	65	15.3
Total		426	100.0

Table 3 shows the level of practice among participants related to CVD among household women. Majority of the participants (n=341) fell under the Bad attitude practice, 65 people under the 2735 category which is a Good practice category, and only 19 participants fell under the Bad practice category.

Table 4: Association between level of attitude and level of knowledge.

	Level of Knowledge				p-value
	(Good) 20-12	(Fair) 28-21	(Poor) 36-29	Total	
Level of Practice 7-16 (Bad)	280	60	1	341	
	%78.9	%87.0	%100.0	%80.2	542.
(Weak) 26-17	16	3	0	19	
	%4.5	%4.3	%0.0	%4.5	
(Good) 35-27	59	6	0	65	
	%16.6	%8.7	%0.0	%15.3	
Total	355	69	1	425	
	%100.0	%100.0	%100.0	%100.0	

Table 4 shows the cross tabulation between level of attitude and level of knowledge among the participants. The p value came out to be .274, which means there is insignificant association between the two variables.

Table 5: Association between level of practice and level of knowledge.

| | Level of Knowledge | | | | p-value |
	(Good) 20-12	(Fair) 28-21	(Poor) 36-29	Total	
Level of Practice 7-16 (Bad)	280	60	1	341	542.
	%78.9	%87.0	%100.0	%80.2	
(Weak) 26-17	16	3	0	19	
	%4.5	%4.3	%0.0	%4.5	
(Good) 35-27	59	6	0	65	
	%16.6	%8.7	%0.0	%15.3	
Total	355	69	1	425	
	%100.0	%100.0	%100.0	%100.0	

Table 5 shows the cross tabulation between level of practice and level of knowledge among the participants. The p value came out to be .542, which means there is insignificant association between the two variables

Table 6: Association between level of practice and level of attitude

	Level of Practice				p-value
	(Bad) 16-7	(Weak) 26-17	(Good) 35-27	Total	
Level of Attitude 12-28 (Negative)	3	0	0	3	
	%0.9	%0.0	%0.0	%0.7	693.
(Neutral) 44-29	210	13	36	259	
	%61.6	%68.4	%55.4	%60.9	
(Positive) 60-45	128	6	29	163	
	%37.5	%31.6	%44.6	%38.4	
Total	341	19	65	425	
	%100.0	%100.0	%100.0	%100.0	

Table 6 shows the cross tabulation between level of practice and level of attitude among the participants. The p value came out to be .693, which means there is insignificant association between the two variables.

Discussion:

The present questionnaire study was conducted among household female population to determine the knowledge, attitudes and practices regarding cardiovascular disease. And to figure out the knowledge about risk factors for cardiovascular disease, among the selected population. The study was conducted among 424 housewives. All the included female participants were aged 18 years and above. The overall mean age of the participants was 29.03 years. The data was collected through an authentic KAP questionnaire that will give an analysis about the levels of knowledge among the target population regarding the research question under study.

According to a study conducted by Machaalani et al., in 2022, the knowledge and perception about cardiovascular issues was observed among participants from Lebanon. The study was conducted among 921 individuals, who were divided between people suffering from cardiovascular diseases, and normal healthy people. Knowledge levels were analyzed among both the groups included in the study using the KAP questionnaire. According to the results of the study, both the groups lacked enough information about cardiovascular problems, however, the levels of knowledge were slightly higher among the people suffering from cardiovascular anomalies. 74.47% of the CVD

patients showed good fair levels of understanding, as compared to 66.5% of the healthy individuals.[9] According to the results of the present study, 83.6% of the selected population had good understanding for the cardiovascular disease. While 16.2% of the population had just some knowledge about it. Only 0.2% of the women included, were not aware of CVDs at all.

According to a study conducted by Qi Liu et al., in 2020, a detailed analysis was done in finding association between understanding and perceived risk factors of cardiovascular diseases. The study was conducted among elder individuals in China. A total of 1120 individuals were selected for this study, who were above 60 years of age. The results of this study showed that the overall understanding and perception of cardiovascular diseases among the targeted population was poor. About 56.9% of the participants had no knowledge and information about the cardiovascular pathologies. Whereas, only about 0.8% of the participants had some understanding of it. A poor association was seen between knowledge about CVDs and predisposing risk factors for it.[10] According to the results of the present study however, a major proportion of about 83% of the participants had good understanding of CVDs. In response to that, 38.5% of the individuals had a 33 positive attitude towards the cardiovascular anomalies. Therefore, a statistically significant association (p=0.00) was seen between knowledge and practice regarding risk factors of CVDs

Limitations of the study was the sample was taken from housewives belonging to the same community which Limits generalization of results. The study did not consider women from socioeconomic extremes where results Might have been different. The study did not consider family history of participants, which might have influenced knowledge attitude and practice.

CONCLUSIONS

A clear good response was observed among the participants selected for this research study. 83.6% of the female housewives, had enough knowledge about the risks and problems regarding cardiovascular diseases. In response to the knowledge and practices of CVDs, about 38.5% of the participants showed an extremely positive attitude towards the cardiovascular dysfunctions.

Conflict of Interest: The authors declare that there is no conflict of interest regarding this study.

Funding: No funding

Data availability statement: Supported data will be provided on request from the corresponding author.

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