

Original Research Article

A comparative study on awareness of cardiovascular risk determinants among rural and urban women population of Davangere district, Karnataka, India

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ABSTRACT

Background: The prevalence of cardiovascular disease (CVD) is rising worldwide and it accounts for 17% of the total mortality. This acceleration in the prevalence of CVD has been attributed to the Prototype shift in lifestyle.

Methods: A cross sectional study was conducted for a period of one month (July 2015 to August 2015). Patient attender coming to the rural and urban hospital will be taken as study participants. Data was collected by interviewing the patient attender coming to urban as well as rural hospital by using pre tested semi-structured questionnaire. Descriptive statistics was used to describe the results.

Results: Mean age of study participants was found to be 51.01±5.9 years. About 18% of the study participants were illiterate. Rural women had more awareness in 15 out of 20 risk determinants as compared to urban women.

Conclusions: The present study showed that rural women had more awareness as compared to urban women with respect to cardiovascular risk determinants.

Keywords: Cardiovascular risk determinants, Rural, Urban

INTRODUCTION

The prevalence of cardiovascular disease (CVD) is rising worldwide and it accounts for 17% of the total mortality. This acceleration in the prevalence of CVD has been attributed to the Prototype shift in lifestyle. This also including the changes in dietary pattern, principally more consumption of refined carbohydrates and saturated lipids, and physical indolence associated with progressive monetary growth and urbanization.¹

Among Indians, CVD incline to transpire earlier in life than among any other ethnic group.² The perception of

risk factors and their connotation to CAD has been investigated in numerous epidemiological studies in the United States and Europe.³⁻⁵

Though prevalence of CVDs is lower in rural population, it is believed to increase owing to rapid urbanization and changing lifestyle patterns.⁶

There were no much Indian studies available regarding the awareness level of cardiovascular disease determinants among rural and urban population. We intend to know the same in our study.

Objective

- To compare the awareness of cardiovascular risk determinants among rural and urban population of Davangere district

METHODS

A cross sectional study was conducted in rural field practice area and urban tertiary care. The study was carried out for a period of two month (July to august 2015) after getting ethical clearance from the institutional ethical committee. Data was collected by interviewing the patient attender coming to urban as well as rural hospital by using pre tested semi-structured questionnaire.

Sampling

Study sample size was calculated by estimating knowledge about CVDs among women to be 55.6% based on previous study with relative error of 20% was 83.⁷ However, final sample size of 100 persons above 18 years of age was used considering with the nonresponse rate of 10%.

Inclusion criteria: The entire patient's attender above 18 years will be included in the study.

Exclusion criteria: Who are not willing to participate in the study; Who already have cardiovascular disease.

RESULTS

Among them 100 were from urban area and 100 were from rural area. Mean age of study participants was found to be 51.01 ± 5.9 years.

Table 1: Distribution of study participants based on marital status.

Marital status	Frequency	Percentages
Divorce	8	4
Married	185	92.5
Widow	7	3.5
Total	200	100.0

About 92.5% of the parents were married and about 4% of them were divorce and about 3.5% of the parents were widow. Majority (62%) of the study participants belonged to Hindu religion.

Table 2: Distribution of study participants based on religion.

Religion	Frequency	Percentages
Hindu	124	62
Muslim	56	28
others	20	10

Questions related to awareness of the cardiovascular risk determinants were asked to the study participants.

Table 3: Questions related to awareness of about cardiovascular risk determinants.

Questions	Rural N=100	Urban N=100
1. A Person Always Knows When He Has Heart Diseases	62	56
2. If You Are Having Family History of heart disease, you are at risk of developing heart disease	56	46
3. The older the person the greater the risk of having heart disease	54	86
4. Smoking is a risk factor for coronary heart disease	68	36
5. A person who stops smoking will have lower risk of heart disease	78	46
6. High blood pressure is a risk factor developing heart disease	46	67
7. keeping blood pressure under control will reduce the risk of heart disease	42	61
8. High cholesterol is a risk factor for heart disease	56	54
9. If your good cholesterol(HDL) is high you are at risk of heart disease	45	32
10. If your bad cholesterol(LDL) is high you are at risk of heart disease	68	56
11. Eating fatty food does not alter blood cholesterol	64	54
12. Being Over Weight Increases the Risk Of Heart Disease	60	54
13. Regular physical activity will lower the person chance for getting heart disease	54	42
14. Diabetes is a risk factor for heart disease	52	32
15. High blood sugar makes the heart work harder	42	34
16. Abdominal obesity (fat belly) is a risk factor for heart disease	62	52
17. Stress may cause increased blood pressure, blood sugar and cholesterol level	46	64
18. Women are more risk of getting heart disease	76	62
19. Drinking alcohol can cause heart diseases	86	64
20. Eating vegetables can reduce heart diseases	56	62

Majority of the study participants said yes to when asked whether the Person Always Knows When He Has Heart Diseases. Among them majority were from rural area. Majority of them agreed that family history plays a very important role. About 86% of the urban study participants agreed that older persons are at greater risk of heart disease. Majority of the study participants agreed that smoking causes heart disease. About 78% of rural population agreed that cessation of smoking reduces the risk of heart disease. About 42% of the rural person's agreed that high blood pressure is a risk factor developing heart disease.

Majority of the both rural and urban area patients were aware of the cholesterol is risk factor for the heart disease. Not much awareness was seen about the concept of HDL and LDL. Most of the study participants were aware about the overweight and obesity as the risk factor for the heart disease. Only half the study participants were aware of the physical activity can contribute to the reduction in the heart disease. There was low awareness about the diabetes as risk factor of the heart disease.

Majority of the study participants from urban area thought that stress is the major risk factor for the heart disease. Most of the study participants agreed that drinking alcohol can increase heart diseases. Eating vegetables can reduce heart disease was said by most of the study participants.

DISCUSSION

In the present study gender, educational level, income was highly correlated with awareness about the cardiovascular risk determinants.

A very worrisome finding in the current study was the respondents' low knowledge of heart attack or stroke warning symptoms. Two-fifths (40.7%) of the study participants were not aware of any heart attack symptoms, and only 8.5% could identify all symptoms. Chest pain was the most common known symptom (50.4%), which is close to that found in Beijing, but higher than that in Pakistan, and Nepal.⁸⁻¹⁰ In contrast, a higher knowledge was reported by previous studies from North Ireland, Canada, Iran and Jordan, where chest pain was known by over 75% of respondents.¹¹⁻¹⁴ Shortness of breath was recognized by 48.0% of the study population, which is consistent to that reported in North Ireland, Canada and Jordan but higher than that in Pakistan and Nepal.¹⁰ Iranians showed a higher knowledge than Kuwaitis regarding shortness of breath.¹¹ Pain in arms or shoulder' was identified by 41.2% of respondents, which concurs with that reported in Canada and Jordan, but higher than that reported by studies from North Ireland and Nepal.^{11,12,14} Feeling weak, light-headed, or faint' was recognized by 25.4% of participants, which is close to that reported in North Ireland and Nepal but higher than that in Canada.¹⁴ Failure to know heart attack symptoms may increase the delay in seeking early

medical care that could lead to worse therapeutic outcomes.

CONCLUSION

The present study showed that rural women had more awareness as compared to urban women with respect to cardiovascular risk determinants. We would like to recommend health education should be given to the women with special focus to urban community regarding cardiovascular risk determinants.

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