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RESEARCH ARTICLE

Assessment of Knowledge of Patient Regarding Coronary Artery Disease among Patients in Selected Hospitals at Mangalore.

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ABSTRACT:

Background: Coronary heart disease is now the leading cause of mortality worldwide and accounts for the death of 3.8 million men and 3.4 million women each year. In developing countries, coronary artery diseases have been recognized as a major public health problem. The lack of knowledge regarding personal risk of CHD may impact decision-making regarding risk prevention, and this impact may be heightened among socio demographic groups under-educated on the risk and prevention of cardiovascular disease.

Objectives: To determine the knowledge of patient regarding coronary artery disease. To find out the relationship between knowledge level and selected demographic variables.

Method: The study design was descriptive survey design. The purposive sampling technique was used to draw 75 patients as samples. Data was collected by administering the CAD questionnaire to assess the knowledge.

Results: The result shows that there was significant relationship between knowledge level and age group, occupation, and education with odds ratio [95% confidence interval], age group between 25-35years have OR 1.632 (0.208, 1.934), age group of 36-45years OR 1.325 (0.352, 4.989) (verses age group of 46-55 years) and Pre university OR 1.442 (0.423, 4.91) Diploma OR 1.02 (0.287, 3.489), Private employee OR 1.513 (0.136, 1.939), Govt.employee OR 1.418(0.083, 2.114). But there was no significant relationship between knowledge level and religion, any related diseases and when was diagnosed to have CAD.

Interpretation and conclusion: The findings of the study showed that patients have moderate level of knowledge regarding CAD.

KEYWORDS: Assessment, Knowledge level, Coronary Artery Disease (CAD)

INTRODUCTION:

Cardiovascular disease is responsible for approximately 10% of disability-adjusted life years in low- and middle-income countries and 18% in high income countries. Disability-adjusted life years indicate the total burden of a disease, not only a negative result- death. Coronary heart disease is now the leading cause of mortality worldwide and accounts for the death of 3.8 million men and 3.4 million women each year.

In developing countries, coronary artery diseases have been recognized as a major public health problem. Survivors of are required to cope with and adapt to life altering experiences in order to improve their long-term recovery and life quality.¹ Cardiovascular disease has been rampant as the leading killer in India, accounting for the largest number of deaths, nearly 29% back in 2005. Disease data has presented cumulative statistical trends consistently, year after year. When experts in New Delhi analyzed disease burden in September last year on the occasion of World Heart Day, estimates revealed an overall increase of 34.5 million in heart disease population from 2000 to 2015. The year 2020 is

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expected to put India into the forefront of global heart disease. Around 19% deaths are expected from the killer illness and its co morbidities alone²

In India, ischemic heart disease had become the leading cause of death by 2004 accounting for 1.46 million deaths (14% of total deaths) and deaths due to ischemic heart disease were expected to double during 1985–2015. Globally it is predicted that disability adjusted life years (DALYs) lost to ischemic heart disease will account for 5.5% of total DALYs in 2030, making it the second most important cause of disability as well as the leading cause of death by this date.³

Coronary artery disease is a major health burden in world wide. It began its march in the united state in the early 1920. Worg Health Organization reported that cardio vascular disease will be the largest cause and disability by 2020. In India, ischemic heart disease had become the leading cause of death by 2004 accounting for 1.46 million deaths (14% of total deaths) and deaths due to ischemic heart disease were expected to double during 1985–2015. .In contrast, ischemic heart disease is becoming a more common cause of death in the developing world.⁴ Current estimate indicate that at least 30 million people are suffering from coronary artery disease in India. A population survey suggests a prevalence rate in India of 10.9% in urban and 5.5% in rural males between the age group of 35-64 years. The corresponding figures of females are 10.2% and 6.4% for urban and rural population.⁵

MATERIALS AND METHODS:

OBJECTIVES:

1. To determine the knowledge of patient regarding coronary artery disease.
2. To find out the relationship between knowledge level and selected demographic variables:

Hypotheses:

H₁: There will be significant relationship between the knowledge and selected demographic variables.

RESEARCH METHODOLOGY:

RESEARCH DESIGN:

The study was carried out using descriptive survey design

Setting of the Study

The study was conducted in 750 bedded AJ IMS and A.J Hospital and Research centre at Mangalore.

Sample:

By using purposive sampling technique 75 patients were selected.

Ethical clearance:

Ethical clearance has been obtained from A. J .ethics committee.

Data collection tools:

Based on the objectives, baseline proforma and CAD questionnaire were prepared and administered to the patients in selected hospital in Mangalore. Content validity of tool was established by submitting to five experts. The reliability of the CAD scale in Kannada was calculated by Cronbach's alpha, $r = 0.719$. The reliability of CAD scale in English was calculated by split half method, $r = 0.732$. The back translation reliability was found by coefficient of correlation method, $r = 0.999$ for the tool. Hence the tools were found to be reliable.

Method of Data Collection

Prior to the data collection permission was obtained from the concerned authority of the organization for conducting the study. The data collection period extended from 10-10-13 to 25-10-13. Subjects were selected according to the selection criteria and confidentiality was assured. Written consent was obtained from the subjects. Subjects were assigned through purposive sampling technique and the data was obtained using CAD questionnaire.

RESULTS:

Table 1: Frequency and percentage distribution of samples according to their demographic variables

Sl No	Variables	Frequency (f)	Percentage (%)
1	Age (in years)		
	25-35 years	35	48.7
	36-45 years	14	18.7
	46-55 years	14	18.7
	>55 years	12	16
2	Religion		
	Hindu	36	48
	Christian	9	12
	Muslim	30	40
3	Education		
	Pre- University	34	45.3
	Diploma	27	36
	Graduate	5	6.7
	Post- Graduate	9	12
4	Occupation		
	Private employee	51	68
	Govt. employee	10	13.3
	Self-employed	6	8
	Unemployed	8	10.7
5	Related Disease		
	Diabetes mellitus	10	13.3
	Hypertension	15	20
	Hyperlipidemia	29	38.7
	Others	21	28
6	Diagnosed to have CAD		
	< 1 year	28	37.3
	1-3 years	21	28
	4-5 years	6	8
	>5 years	20	26.7

Table 2: Frequency and percentage distribution of patients according to their scores.

Knowledge level	Frequency (f)	Percentage (%)
Poor	6	8.0
Moderate	42	56.0
Adequate	27	36.0

Table 3: Mean median, standard deviation and mean percentage of knowledge level of patient with CAD

Mean	Median	SD	Mean percentage	Minimum	Maximum
14.05	12	3.838	58.6	6	19

Maximum score = 24

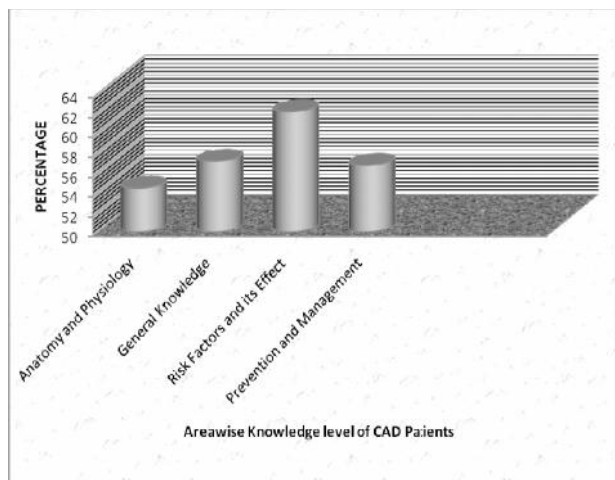


Figure 1 : Cylindrical diagram showing area-wise mean percentage of knowledge level of CAD patients

Table 4: Odds Ratio showing the relationship of knowledge level of CAD patients with selected demographic variables.

Variables	Options	Odds ratio	95% confidence interval
Age in Years	25 - 35 Years	1.635 *	0.208-1.934
	36 - 45 Years	1.325 *	0.352-4.989
Education	Pre-university	1.442 *	0.423-4.917
	Diploma	1.002 *	0.287-3.489
Occupation	Private Employee	1.513*	0.136-1.939
	Govt. Employee	1.418*	0.083-2.114

Level of significance= 1 * significance

DISCUSSION:

In the present study, the majority of CAD patients 35(48%) were in 25-35 years of age and the least 12(16%) belongs to above 55 years of age while most of them were Hindus 36(48%) and remaining were Muslim 30(40%) and Christian 9(12%) respectively. Highest percentage of the subjects 34(43.3%) had pre-university education and least 9(12%) had a post graduation. Majority of participants 51(68%) are private employees whereas the least participants 6(8%) are self employed. Most of the participants 29(38.7%) have hyperlipidemia as the related disease while on other hand only 10(13.3%) of the patients had diabetes mellitus as the related disease. Highest percentage 28(37.3%) of sample have been diagnosed to have CAD below 1 year and least percentage 6(8%) have been diagnosed to have CAD 4-5year. The present

study findings suggest that most of the CAD patients were in age group of 25-35years.

The findings of the study showed that majority (56%) of subjects has moderate level of knowledge and rest have moderate (36%) and low (8%) level of knowledge and the mean percentage (62.1%) of knowledge level was highest in the area of risk factors and its effect and least (54.4%) in the area of anatomy and physiology. Findings of the study indicated that the knowledge level of CAD patients was highest in the area of risk factors and its effect.

The multinomial logistic regression analysis on knowledge of CAD patients have good knowledge among (odds ratio [95% confidence interval]) age group between 46-55 years have OR .021 (0.288 – 3.979) compared to the age group of 36-45years, OR 0.041 (0.154 – 5.738) among patients with graduation compared to diploma patients and OR 0.034 (0.061 – 2.367) among patients who are self employed compared to unemployed patients. The data shows that there was significant relationship between knowledge level and age group, occupation, and education. But there was no significant relationship between knowledge level and religion, any related diseases and when was diagnosed to have CAD. It was showed that there is significant relationship between knowledge level of CAD patients and selected demographic variables.

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