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Latha P
Associate Professor,
Department of OBG,
Narayana College of Nursing,
Nellore, Andhra Pradesh,
India

Umaya Rani AR
B.Sc. Nursing, Narayana
College of Nursing, Nellore,
Andhra Pradesh, India

Dr. Indira Arumugam
Professor & Principal,
Department of MSN,
Narayana College of Nursing,
Nellore, Andhra Pradesh,
India

A study to assess the knowledge on clinical features and complications of coronary artery disease (CAD) among adults in Dakkilivaripalem, Nellore, A.P

Latha P, Umaya Rani AR and Dr. Indira Arumugam

Abstract
Background: Coronary artery disease (CAD) is the leading cause of death and primary cause of attacks and strokes.
Aim: The aim of the study was to assess the knowledge on clinical features and complications of cad among adults in Dakkilivaripalem, Nellore, A.P.
Objectives: 1. To assess the knowledge on clinical features and complications of CAD among adults. 2. To find the association between the knowledge on clinical features and complications of CAD among adults with selected socio demographic variables.
Methodology: 50 adults from Dakkilivaripalem, Village, Nellore were selected by using Non probability convenience sampling technique.
Results: Regard to level of knowledge among adults, 4(8%) had B grade, 11(22%) had C grade and 35 (70%) had D grade knowledge.

Keywords: Knowledge, clinical features, complications, coronary artery disease, adults

Introduction

Coronary artery disease (CAD) is the leading cause of death and primary cause of attacks and strokes. Coronary artery disease in urban population increased from 3.5% and corresponding changes for the rural population was from 2.4%. There rate appears to the highest in south India. It has been estimated that the India had the highest number of death in the world because of coronary artery disease 2009 nearly 1.8 million is expected. Many factors have been associated with coronary artery disease. They can be categorized as modifiable and non modifiable factors include elevated serum lipid, hypertension, tobacco use, physical inactivity, obesity diabetic mellitus, and family history [1].

The decreased blood flow may not cause coronary artery disease symptoms. As plaque continues to build up in coronary artery disease. The signs include chest pain, shortness of breathing, heart attack, indigestion, nausea sweating. The symptoms including chest pain heaviness, tightness, burning, squeezing others include dizziness, sweating, jaw pain, back pain arrhythmia. The classic signs and symptoms of heart attack include crushing pressure in chest and pain. The complications such as heart failure, arrhythmia, Chest pain and heart attack [2].

Need for the Study

Global burden disease study estimates of age standardized Coronary artery disease death rate of 272 per 10,000 populations in India is higher than global average of 235 per 10,000 population [3].

American Heart Association (AHA) estimates 1.2 million people will have coronary artery disease annually and about 1/4th of these Will an emergency department of before reaching the hospital. Although mortality rate of coronary artery disease increased by 26.3%between 2008 and 2016, due to cardio vascular disease [4].

World Health Organization (WHO) estimates that there will be About 20 million death in 2015, and coronary artery disease recently where commonly in high income countries are how become dominant source of morbidity and mortality worldwide [5].

World Health Statistics has reported the prevalence of major Coronary artery disease risk factors in India, 32%adult death in 2010 to 2013.

Correspondence
Latha P
Associate Professor,
Department of OBG,
Narayana College of Nursing,
Nellore, Andhra Pradesh,
India

In India studies have reported increasing coronary artery disease prevalence over the last 60 years from 1% to 4-6% in rural population 1% to 9-10% in urban population.[6] Another study of 45% villages in rural Andhra Pradesh showed That CAD was the leading cause of mortality accounting for 32% of all death [7].

Andrew P *et al*., (2013) a descriptive cross-sectional study was done to determine the knowledge and awareness of risk factors for CAD among Canadians. The data was collected from the Canadian province heart health initiative and sampling within each province consisted of stratified 2-stage replicated probability samples; 4976 people were included in the analysis, and knowledge and awareness of CAD risk factors was determined from the survey questionnaire. BP, anthropometric measurements and blood measurements were obtained during a clinic visit. CAD health status was determined by self-reporting. Results showed that smoking and stress were manifested as a major cause of heart disease by the greatest proportion of participants (41% and 44% respectively). Hypertension was mentioned only by 16% men and women did not differ in their awareness of high BP (23%), smoking (41%), excess weight (30%) and physical inactivity (28%) as causes for heart disease [8].

Statement of the Problem
A study to assess the knowledge on clinical features and complications of Coronary artery disease (CAD) among adults in Dakkilivaripalem, Nellore, A.P.

Objectives
- To assess the knowledge on clinical features and complications of CAD among adults.
- To find the association between the knowledge on clinical features and complications of CAD among adults with selected socio demographic variables.

Delimitations
- The study is limited to;
- Adults living in Dakkilivaripalem at Nellore
- Data collection period is limited to the period of 2 weeks.
- Sample size of 50 only.

Methodology
Research Approach
A quantitative approach was adopted to determine the research study.

Research Design
The present study was conducted by using descriptive research design

Setting of the Study
The study was conducted in Dakkalivaripalem at Nellore.

Target population: The target population was included all adults in Dakkilivaripalem, Nellore.

Accessible population: The accessible population included the adults who were living in Dakkilivaripalem at Nellore.

Sample: The sample for the present study includes adults who fulfills the inclusion criteria.

Sample Size: The sample size for the present study was 50 adults.

Sampling Technique: Non probability convenience sampling technique was adopted to select sample.

Criteria for Sample Collection
Inclusion criteria
- The adults residing in Dakkilivaripalem, Nellore
- The adults are willing to participate in this study
- The adults who were available at the time of data collection

Exclusion criteria
Adults who are not;
- Willing to participate in this study
- Available at the time of data collection

Variables:
Research variables: Knowledge on clinical features and complications of CAD among adults.

Demographic variables: Demographic variables include age, gender, religion, educational status, occupation, family income per month.

Description of the Tool
Part-I: It deals with the socio demographic variables

Part-II: Structured questionnaire was used to assess the level of knowledge regarding causes and complications of CAD among adults.

Scoring Interpretation

Grade	Score
A+	More than 85%
A	More than 75%
B+	More than 65%
B	More than 55%
C	More than 50%
D	Less than 50%

Data Analysis and Discussion:

Table 1: Frequency and percentage distribution of adults based on level of knowledge (N=50)

Level of knowledge	Frequency (f)	Percentage (%)
B	4	8
C	11	22
D	35	70
Total	50	100

Table no:-1 Shows that with regard to level of knowledge, 4(8%) had B grade, 11(22%) had C grade and 35 (70%) had D grade knowledge.
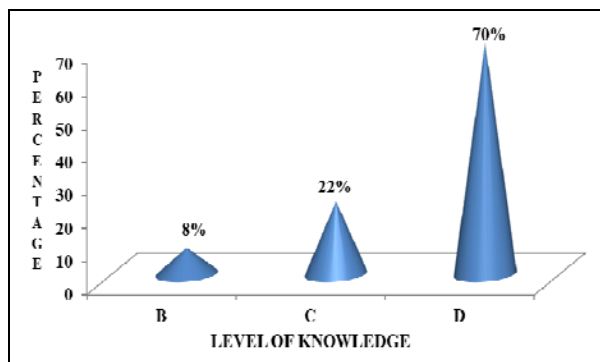
Fig 1: Percentage distribution of adults based on knowledge.

Table 2: Mean and standard deviation of level of knowledge among adults. (N=50)

Criteria	Mean	Standard deviation
Level of Knowledge	7.7	3.66

Table no-2: Shows that the mean knowledge score of adults was 7.7 and standard deviation was 3.66.

Table 3: Association between level of knowledge and socio demographic variables among adults. (N=50)

S. No	Demographic variables	B		C		D		Chi squire (X^2)
		F	%	F	%	F	%	
1.	**Age**							C=19.45
	a. 22-23 years	2	4	3	6	14	28	T=24.9
	b. 24-25 years	1	2	5	10	15	30	Df=15
	c. 26-27 years	1	2	3	6	4	8	*P*<0.05
	d. Above 27 years	-	-	-	-	2	4	S*
2.	**Gender**							C=11.26
	a. Male	2	4	3	6	14	28	T=11.07
	b. Female	2	4	8	16	21	42	Df=5 *P*<0.05 S*
3.	**Education status**							C=24.43
	a) Primary education	3	6	8	16	26	52	T=14.77
	b) Sec. & Hr. Secondary	1	2	2	4	8	16	Df=4
	c) Graduate & Above	-	-	1	2	1	2	*P*<0.05 S*

Major findings of the study
- Regard to level of knowledge of regarding Coronary artery disease among adults, (CAD), 4(8%) had B grade, 11(22%) had C grade and 35 (70%) had D grade knowledge.
- The mean knowledge score of adults was 7.7 and standard deviation was 3.66.
- Regarding association between level of knowledge and demographic variables such as age, gender, educational status had significant association at *P*<0.05 level.

Conclusion
The study concluded that majority of adults, 35(70%) had very low grade (D grade) knowledge on clinical features and complications of Coronary artery disease. There is am immense need to implement the educational programme for adults regarding all aspects of CAD. Hence adequate knowledge on CAD may help them to be prevented from complications associated with Coronary artery disease.

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