



## “A Study To Evaluate The Effectiveness Of Awareness Program On Knowledge Regarding Cardiac Arrest And Its Management Among Rural Population, Kolar Road, Bhopal (M.P.)”

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### ABSTRACT

The current study has been undertaken to assess knowledge score regarding Cardiac arrest and its management among Rural population by Awareness program in Gunga, Bhopal. The research design used for study was pre- experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding Cardiac arrest and its management among rural population. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that in post - test 0(0%) of subjects were having poor knowledge score, 02 (3.33%) were having average knowledge score, 23 (38.3%) were having good knowledge score, 35 (58.3%) were having excellent knowledge regarding cardiac arrest and its management among rural population.

**Keyword-** Awareness program, knowledge & Cardiac arrest and its management.

### Introduction

Cardiac arrest occurs when the heart suddenly and unexpectedly stops pumping. If this happens, blood stops flowing to the brain and other vital organs. Cardiac arrests are caused by certain types of arrhythmias that prevent the heart from pumping blood. Cardiac arrest is a medical emergency. Nine out of 10 people who have a cardiac arrest outside of a hospital die often within minutes. The main cause of cardiac arrest is ventricular fibrillation or ventricular tachycardia, which are types of arrhythmias. Important risk factors include prior cardiac arrest, coronary heart disease, heart valve disease, congenital heart defects, and arrhythmias caused by faulty genes. However, half of cardiac arrests happen to people who did not know they had a heart problem. In cardiac arrest, death can result quickly if proper steps aren't taken immediately. Cardiac arrest may be reversed if CPR is performed and a defibrillator shocks the heart and restores a normal heart rhythm within a few minutes.

### Need for study

The year 2023 was another year for young adults and people in their thirties and forties to be concerned about their heart health as Bollywood diva and former Miss Universe Sushmita Sen dropped the news of getting a heart attack at the age of 47 in February 2023 while well-known Telugu actor and dramatist Harikanth, unexpectedly passed away at 33 due to a cardiac arrest on July 1, 2023 and Lapataganj actor Arvind Kumar too succumbed to a heart attack while he was on his way to the shoot on July 11, 2023. Earlier, famous television actor, Sidharth Shukla lost his life at the age of 40 after suffering a heart attack on September 2, 2021, South Indian actor Punnet Rajkumar passed away due to the same health issue at the age of 46 on October 29, 2021 and renowned South Indian actor Chiranjeevi Sarja succumbed to a cardiac arrest in Bengaluru at the age of 35 on June 7, 2020. (Hindustan Times)

### Objective of the study

1. To assess the pre-test knowledge of rural population regarding cardiac arrest and its management before implementing awareness program.
2. To assess the post-test knowledge of rural population regarding cardiac arrest and its management after implementing awareness program.
3. To determine the effectiveness of awareness program on knowledge regarding cardiac arrest and its management by comparing post-test and pre- test knowledge score.
4. To find out the association between pre-test knowledge score of rural population with selected demographic variables.

**Hypotheses:**

**H<sub>1</sub>** – There is a significant difference between mean pre-test and post-test level of knowledge score of rural populations regarding cardiac arrest and its management.

**H<sub>2</sub>** – There is a significant association between the pre-test knowledge score of rural population regarding cardiac arrest and its management with selected demographic variables.

**Assumption**

- i. Rural population may have inadequate knowledge regarding cardiac arrest and its management.
- ii. Awareness programs increase the knowledge of rural population Regarding cardiac arrest and its management

**Methodology**

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 60 rural population selected by Non probability purposive sampling technique. The setting for the study was Gunga rural area, Bhopal. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after Awareness program. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics.

**Analysis and interpretation**

**SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.** n = 60

Demographic characteristics	Frequency (f)	Percentage (%)
<b>Age</b>		
21-25 years	23	38.33
26-30 years	16	26.67
31-35 years	12	20
36-40 years	09	15
<b>Religion</b>		
Hindu	32	53.3
Muslim	12	20.0
Christian	7	11.7
Other	9	15.0
<b>Educational status</b>		
Elementary education	04	6.7
Secondary education	20	33.33
Higher education	20	33.33
Under graduate & post graduate	16	26.67
<b>Occupation</b>		
Home maker	19	31.7
Technical/ professional	15	25
Daily wage	13	21.7
Any other	13	21.7

**SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:**

Level of knowledge	Knowledge score	Frequency	Percentage (%)	Mean	S.D.
Poor knowledge	0-5	37	61.7%	5.68	2.6
Average knowledge	6-10	18	30%		
Good knowledge	11-15	5	8.3%		
Excellent knowledge	16-20	0	0		

Table 2.1.1 shows that, in pre- test highest 37 (61.7%) of subjects were having poor knowledge score, 18 (30%) were having average knowledge score, 5 (8.3%) were having good knowledge score, 0 (0%) were having excellent knowledge regarding cardiac arrest and its management among rural population.

**Table-2.1.2. - Table- 2.1.1- Frequency and percentage distribution of post-test scores of studied subjects:**

Level of knowledge	Knowledge score	Frequency	Percentage (%)	Mean	S.D.
Poor knowledge	0-5	0	0%		

Average knowledge	6-10	02	3.33%	16.07	2.4
Good knowledge	11-15	23	38.3%		
Excellent knowledge	16-20	35	58.3%		

Table 2.1.2: shows that, in post - test 0(0%) of subjects were having poor knowledge score, 02 (3.33%) were having average knowledge score, 23 (38.3%) were having good knowledge score, 35 (58.3%) were having excellent knowledge regarding cardiac arrest and its management among rural population.

**Table- 2.2.1 Mean, mean difference, standard deviation, and ‘t’ value of pre and post-test knowledge score of rural population. n = 60**

Group	Mean knowledge score		Mean difference	Standard deviation		t value
	Pre-test	Post-test		Pre-test	Post-test	
Rural population	5.68	16.07	10.39	2.6	2.4	20.42

$t_{59} = 2.0010, p < 0.05$  \* Significant

Data in table 4.11: shows that the mean post-test knowledge score (16.07) was higher than the mean pre-test knowledge score (5.68). The computed ‘t’ value ( $t_{59}=20.42$ ) was higher than the table value ( $t_{59}=2.00102$ ) at 0.05 level of significance. Hence the research hypothesis **H<sub>1</sub>** is accepted and it was inferred that the mean difference between pre- and post-test knowledge score was statistically significant. This indicates that the awareness program was effective in increasing the knowledge of rural population regarding cardiac arrest and its management.

**SECTION-III Association of knowledge scores between test and selected demographic variables:**

- There was significant association between the pre-test knowledge score and age of the rural population at level of 0.05 the calculated value ( $\chi^2=17.75$ ) and table value is  $p=16.9$ . As the calculated value was greater than table value, hence it was significant and hypothesis **H<sub>2</sub>** is accepted.
- There was significant association between the pre-test knowledge score and religion of rural population at level of 0.05 the calculated value ( $\chi^2=5.1$ ) and table value is  $p=16.9$ . As the calculated value less than the table value, hence it was non- significant.
- There was significant association between the pre-test knowledge score and educational status of the rural population at level of 0.05 the calculated value ( $\chi^2=34.1$ ) and table value is  $p=16.9$ . As the calculated value was greater than the table value, hence it was significant, research hypothesis **H<sub>2</sub>** is accepted.
- There was significant association between the pre-test knowledge score and occupation of rural population at level of 0.05 the calculated value ( $\chi^2=36.314$ ) and table value is  $p=16.91$ . As the calculated value greater than the table value, hence it was significant research hypothesis **H<sub>2</sub>** is accepted.

**Results**

The result of this study indicates that mean post-test knowledge score (16.07) was higher than the mean pre-test knowledge score (5.68). The computed ‘t’ value ( $t_{59}=20.42$ ) was higher than the table value ( $t_{59}=2.00102$ ) at 0.05 level of significance.

**Conclusion**

Thus, after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there is a significant difference between mean pre-test and post-test level of knowledge score of rural population regarding cardiac arrest and its management. is being accepted.

Furthermore, Awareness program related to Cardiac arrest and its management among rural population may consider as an effective tool when there is a need in bridging & modifying knowledge.

**Limitations**

- This was limited to Gunga, Indore.
- This was limited to 60 rural population.

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