

# A Study to Assess the Effectiveness of Peer-to-Peer Approach on the Knowledge Regarding First Aid Management Among High School Students of Ambikapur Surguja, Chhattisgarh

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**Abstract:** **Background:** First-Aid Management becomes a crucial role following any injuries to serious accidents resulting in bleeding and fractures to children before the child is transferred to a medical institution, as the children are highly exposed to emergencies due to increasing activity. In schools the complications are more than other regions. The children often go careless about their safety in times of games and plays. Safety measures like first aid are made compulsory due to the chance of occurring emergencies around us. Awareness about safety measure is important in any field of activities. **Aim:** The present study is aimed to assess knowledge regarding first aid management among selected high school students. **Setting and Design:** A quantitative research approach with experimental research design was adopted for the study. The study focused on selected high school students from Renaissance Public School Ambikapur Surguja, (C.G). **Material and Methods:** Totally 60 students equal in each class 9th 10th 11th were enumerated from the selected schools of Renaissance Public School Ambikapur Surguja, (C.G) after obtaining informed consent. Data was collected using 50 questionnaires covering the area, i.e., concepts of first aid management of poisoning management of choking management of burn management of head injury management of bleeding management of broken bone management of severe allergic reaction management of seizure management of wound, haemorrhage & shock to assess knowledge high school students and Self-Structured Questionnaire to assess the effectiveness of peer-to-peer approach on the knowledge regarding first aid management among selected high school students. **Results:** As the present study aimed to assess the effectiveness of peer-to-peer approach on knowledge regarding first aid management

**Keywords:** peer-to-peer approach, knowledge, first aid management.

## 1. Introduction

The adequate knowledge required for handling an emergency without hospital setting at the site of accident or emergency may not be sufficient as most students do not have formal first aid training in the teaching curriculum. Joseph N, 2014 conducted a study among 152 medical studies regarding their

knowledge in first aid, only 11.2% of student participation had previous exposure to first aid training. Good knowledge about first aid was observed in 13.8% moderate knowledge in 68.4% and poor knowledge in 17.8% participants.

## 2. Objectives

- 1) To assess the socio-demographic variables of selected high school students of Ambikapur Surguja, (C.G.).
- 2) To assess the pre- test knowledge regarding first aid management among selected high school students of Ambikapur Surguja, (C.G.).
- 3) To assess the post- test knowledge regarding first aid management among selected high school students of Ambikapur Surguja, (C.G.).
- 4) To evaluate the effectiveness of peer-to-peer approach on the knowledge regarding first aid management among selected high school students of Ambikapur Surguja, (C.G.).
- 5) To find out association between pre-test knowledge score regarding first aid management with selected socio-demographic variables among selected high school students of Ambikapur Surguja, (C.G.).

## 3. Material and Methods

A descriptive study was conducted using experimental research design. Sample in the study were high school students who were studying in 9th, 10th & 11th classes

A representative sample was selected random sampling from the high school students studying in Renaissance Public School Ambikapur Surguja, (C.G).

Frequency and percentage analysis was done to describe the demographic characteristic of the students. The Chi-square analysis used to determine the association between socio demographic variable and first aid management.

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### 4. Results and Discussion

#### A. Distribution of Subjects According to Socio-Demographic

In present study, sociodemographic data elicit that among the study sample, maximum high school students 21 (35%), 18 (30%), 13 (26.67%), and 8 (33%) subjects were of the age group 14 years, 15 years, 16 years and 17 years. 20 (33.3 %) students each study in 9th class, 10th class and 11th class. 29 (48.3%) belong to male population and 31 (51.6%) belong to female population. 57 (95%) students were living in urban areas where as 2 (3.33%) students were living in rural areas where as 1 (1.67%) were living in slum areas. 30 (50%) fathers had middle school education, 17 (28.33%) were graduates, 05 (8.33%) were post graduate, 05 (8.33%) had professional/ technical education and only 03 (05%) were illiterate. 40 (66.67%) mothers had middle school education, 12 (20%) were graduate, 04 (6.67%) were post-graduate, 03 (05%) were illiterate and only 01 (1.67%) had Professional/ technical education. 24 (40%) had business, 17 (28.33) had private service, 11 (18.33%) had any other, 7 (11.67%) had government service and only 01 (1.67%) father was unemployed. 46 (76.67%) were housewives, 08 (13.33%) had government services, 04 (6.67%) had private service and only 02 (3.33%) mothers had other. 37 (61.67%) students belong to joint family, 21 (35%) belong to nuclear family and only 02 (3.33%) belong to extended family. 39 (65%) were having family monthly income of Rs. <15,000, 15 (25%) were having income Rs. 10,001-15,000 whereas only 6 (10%) were having monthly income of Rs. 5000-10,000, 38 (63.33%) had previous knowledge whereas only 22 (36.67%) high school students had no previous knowledge regarding first aid management. 54 (90%) had knowledge from teachers, 4 (6.67%) high school students had knowledge from friends and only 2 (3.33%) had knowledge from mass media.

#### B. Assess The Pre-Test and Post Test Knowledge Scores Regarding First Aid Management

##### 1) Area wise analysis of knowledge regarding first aid management among selected high school students

The maximum increase in knowledge scores was in area of management of poisoning i.e; 69% (pre-test) to 83.4% (post-test) whereas in the area of concept of first aid increase in knowledge was 55.4% (pre-test) to 75% (post-test), in the area of management of choking i.e; 56.4% (pre-test) to 67% (post-test), in the area of management of broken bone i.e; 40% (pre-test) to 54.6% (post-test), in the area of management of severe allergic reaction i.e; 35% (pre-test) to 50% (post-test), in the area of management of burn i.e; 40% (pre-test) to 49% (post-test), in the area of management of bleeding i.e; 36.6% (pre-test) to 49% (post-test), in the area of management of head injury i.e; 34.4% (pre-test) to 47.4% (post-test), in the area of management of seizure i.e; 28% (pre-test) to 46% (post-test) and minimum increase was in the area of wound haemorrhage and shock from 25.4% (pre-test) to 44% (post-test).

##### 2) Overall analysis Overall analysis of pre-test and post-test knowledge scores regarding first aid management among selected high school students

In pre-test, 28 (46.67%) students had average knowledge, 25 (41.67%) had poor knowledge and only 7 (11.67%) had good

knowledge regarding first aid management.

Whereas in post-test 30 (50%) had good knowledge and 30 (50%) had average knowledge regarding first aid management.

#### C. Analysis to find out the effectiveness of peer-to-peer approach on the knowledge regarding first aid management among selected high school students

There was significant difference in pre-test and post-test knowledge scores among high school students regarding first aid management as calculated "t" value (7.7) was greater than table value (3.46) at P< 0.001 level of significance. The above findings indicate that peer to peer approach was effective in improving the knowledge of high school students regarding first aid management.

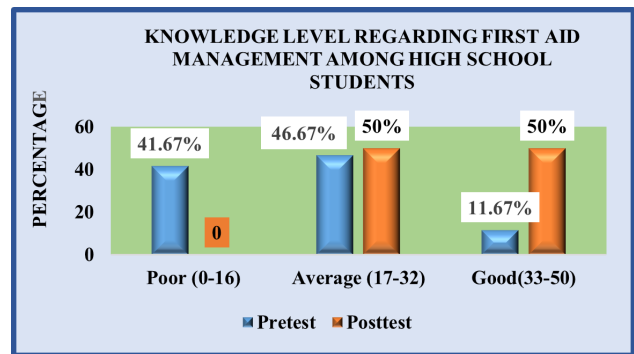


Fig. 1.

#### D. Association between pre-test knowledge scores regarding first aid management among high school students with selected socio-demographic variables

Table 1

S/No.	Socio-demographic variables	Chi square value	Df	Critical value	Significant
1.	Age (in years)	7.35	6	12.59	P>0.05 N
2.	Class	14.66	6	12.59	P<0.05 S
3.	Gender	0.26	2	5.99	P>0.05 N
4.	Area of residence	1.44	4	9.49	P>0.05 N
5.	Education of father	5.95	8	15.5	P>0.05 N
6.	Education of mother	6.45	8	15.5	P>0.05 N
7.	Occupation of father	3.76	8	15.51	P>0.05 N
8.	Occupation of mother	4.53	8	15.5	P>0.05 N
9.	Type of family	2.84	4	9.49	P>0.05 N
10.	Monthly Income	1.24	4	9.49	P>0.05 N
11.	Previous knowledge regarding first aid management	7.17	2	5.99	P<0.05 S
12.	Source of knowledge	6.45	10	18.31	P>0.05 N

There was significant association of knowledge regarding first aid management among high school students with socio demographic variables i.e; class, previous knowledge regarding first aid management as the chi-square values 14.67, 7.17 were

greater than the table values 12.59, 5.99 at 0.05 level of significance respectively. Hence hypothesis ( $H_2$ ) was accepted related to variables i.e., class, previous knowledge regarding first aid management.

## 5. Implications

### A. In Nursing Education

- Nurse educator can take responsibility of organizing health camps among high school students to improve knowledge regarding first aid management.
- As a nurse educator, there are abundant opportunities for nursing professionals to educate the community workers regarding first aid management.

### B. In Nursing Practice

- The present study brings to light that a community health nurse can play a vital role in improving knowledge of first aid management among high school students. Awareness related to concept of first aid, imparted by community health nurses to create awareness among the health care workers in the community.
- Community health nurse can play an important role to create awareness among high school students regarding first aid management of poisoning, choking, burn, head injury, bleeding, broken bone, severe allergic reaction, seizure and wound, haemorrhage & Shock

### C. In Nursing Research

- This study also brings about the fact that more studies need to be conducted to prevent health problems in the Ambikapur Surguja District and promote health of individual, family and community.
- The nurse use research findings to generate knowledge

to guide nursing practice and improve the quality of life of students.

- There is a good scope for nurse to conduct research in this area, to find out the effectiveness of various teaching strategies to educate the high school students.

## 6. Recommendations

- A similar study can be undertaken with larger sample size to create awareness among high school students and to generalize the study findings.
- Comparative study can be done to assess the knowledge of high school students regarding first aid management in urban and rural areas.
- A quasi-experimental study can be conducted with control group for the effective comparison.
- Similar study can be done by including additional demographic variables.
- Similar study can be undertaken on a large sample for making a more valid generalization.

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