

A Study to Assess the Effectiveness of Self-Instructional Module on Knowledge Regarding First Aid and Safety Measures among Higher School Children in Selected School at Jhansi

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INTRODUCTION:

Over the past century, focus of health has shifted to disease prevention, health promotion and wellness. Today, society is complex and ever changing. As children grow, they must learn not only to cope with the current demands but also to prepare for many unexpected events that they will face in their tomorrows. School age Children become more independent with age. This independence leads to an increased self-confidence and decreased fears, which may contribute to accidents and injuries. Children are the gift to this world; and hence it is the responsibility of the society to nurture and take care of them.

Children are the young people who represent the country in future. Their health needs are vital and they share the entitlement to good health and quality health services to the rest of the community. Children and adolescents have the right to knowledge and skill about health in the Universal Declaration of children's rights.

First aid is applied to injured or ill persons in any health threatening settings in order to save life, prevent degradation of the situation or contribute to a treatment process before professional medical care is available. This refers to assessments and interventions that can be performed by a bystander (or by the victim) with minimal or no medical equipment.

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As the incidence of medical emergencies are on the rise in recent years it is important to ensure that health personnel are adequately trained to deal with such events.[5,6] Very few studies have been performed about knowledge of first aid skills among medical students in India.

The objectives of this study were thus to assess the level of knowledge of undergraduate students in providing first aid care, to identify the emergencies where there is a lack of knowledge of first aid and to assess the student's opinion regarding the need for first aid training at medical colleges

Need for the Study:

As we approached the twenty first century lifestyles throughout the different global regions, are changing rapidly, deeply affecting the working condition, living environmental characteristics of occupational and occupational hazards. In such a milieu it is imperative that every responsible citizen should have sufficient knowledge of rendering first aid to the sick or injured persons till the victims reach the safe hands of qualified personnel.

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First aid is a measure to save the life of the person. India is one of the largest developing countries in the world; it constitutes around 20% of school going children. The future of our country rests on the children who will become the future citizens and leaders. Care for the children is not only vital in itself but the most important aspect of the health of the community as a whole.

Division of injury and control state that injuries in children are probably the most under recognized child health problem that exist today with long lasting effects that go far beyond that mortality statistics present. Falls are the fifth ranked causes of death among boys while the fourth ranked among girls from 1 to 4 years of age.

Scorpion sting is a dramatic life threatening medical emergency in villages and subtropical countries. In India Red scorpion and black scorpions are of medical importance, and it is commonly found in wood, banana, bedding, shoes, clothing and felt in the ground etc.

It is a common occurrence that whenever an accident takes place or any person gets injured, people around the casualty usually panic more than the casualty himself. This should not be the case. The First Aider should have a positive attitude and be prepared to help the casualty. The First Aider should also have adequate knowledge and skills about what he is doing, and be encouraging and reassuring to the victims. Besides learning First Aid, it is the sacred duty of each First Aider to publicize the movement till every citizen of the country learns the methods of First Aid.

Laypersons are important people for saving lives in emergency situations. Life-Supporting First-Aid should be part of basic health education and all persons from the age of 10 yrs should learn Life-Supporting First-Aid -skills including Basic Life-Support and cardiopulmonary resuscitation. An important barrier and main concern of laypersons about giving first aid to acutely ill or injured people is the fear of making mistakes. Everyone has the potential to save lives. First aid education and practice are essential tools for saving the lives in emergencies. First aid is an act of humanity showing willingness to save lives with full respect for diversity and without discrimination. Building skills in first aid with the vulnerable people can help to build safer and healthier communities.

The studies related to the first aid showed that consciously and timely first aid applications lowered mortality rates significantly. Fifteen to eighteen percent of deaths as a result of injuries can be

prevented by consciously applied first aid practices. For instance, it was reported that giving the patient right position could lower mortality rate as much as 10 %.² In addition to life saving results of first aid, effective and timely first aid practices also prevent the disabilities. For these reasons whole community should be trained in a way that everybody can practice first aid.

Objectives of The Study:

- To assess the pretest level of knowledge on first aid and safety measures among school children.
- To evaluate the effectiveness of self-Instructional module by comparing the pretest and posttest knowledge of school children.
- To associate post test score with selected demographic variables like (age, family income, type of family, family size, religion, place of residence, food. habit, parent education and occupation status) on first aid and safety measures among school children.

Hypotheses:

H₁: There will be a significant difference between pretest and posttest knowledge score regarding first aid and safety measures among the school children.

H₂: There will be significant association between post test score with the selected demographic variables.

Operational Definitions:

- **Effectiveness:** It refers to the extent to which the Self-instructional module on first aid safety measures has achieved the desired effect in improving the knowledge of school children as evident from gain in the knowledge score.
- **Self-instructional module:** It is a set of learning activities consists of the knowledge regarding first aid and safety measures among school children.
- **Knowledge:** In this study knowledge refers to the correct response from the school children regarding the first aid and safety measures. It will be measured by unstructured questions.
- **First aid:** The first aid is the help given to an injured person until medical treatment is available.
- **Safety measures:** The condition of being safe, free from danger regarding road safety, using of subway, footbridges, safety in public places like park, swimming pool etc.
- **School children:** Students who are in the age group of 11 to 14 years (6th -7th std.)

Assumption:

- The Children possess inadequate knowledge regarding first aid and safety measures.

- Self-Instructional module will improve the knowledge regarding first aid and safety measures.

Delimitations:

- The setting of the study is limited to a selected school at Jhansi, U.P.
- The sample size is limited to 50 subjects.
- The study period is limited to 6 weeks.

Review of Literature:

Review of literature is an important step in the development of a research project. It involves the systematic identification, location, scrutiny and summary of written materials that contain information on research problem. (Polit and Hungler, 2022).

This chapter attempts to present a broad review of the study conducted, the methodology adopted and conclusion drawn by earlier investigations. It helps to study the problem in depth.

- **Review of literature related to knowledge of first aid in school children.**

Baffer M et al., (2024) assessed the knowledge of first aid, among school children in Turkey. The goal of this study was to determine the knowledge by using a questionnaire. Study findings were 65.1% have incorrect answers regarding epistaxis, 63.5% for bee stings, and 88.5% for abrasion. The result of this study showed that children are having inadequate knowledge. The study concluded that basic first aid should be compulsory in all school.

Thein MM et al., (2021) did a cross sectional worldwide study in knowledge attitude and practices of childhood injuries and their prevention among primary caregivers in Singapore. The samples are collected with a two stage stratified random sampling. This study revealed that care givers are having adequate knowledge in road safety but poor knowledge in home safety and first aid practices. He concludes the study with needed frequent educational programme.

- **Review of literature related to common accidents and practices in school children.**

Amarjit Singh, (2001) who have done a study on dog bites and its management in the context of prevention of rabies in a rural community of Gujarat assessed the level of general awareness and knowledge and also the results revealed that 31.1% would like to apply first aid measures, 36.4% follow some religious practices and the remaining alone will consult a doctor. Only 86.6% of individuals are aware of anti-rabies vaccine.

O Hara KA (2002) did a study in first aid for seizures to protect the individual from harm during seizure.

The study reveals that the lack of knowledge in case of parents ,teachers, coworkers and public at large tend to increases the potential of seizure which are likely to prolong or reoccur. And the associated discomfort about how to provide first aid also can contribute to the general stigma associated with epilepsy. The main goal of this study is to the prevention of status epileptics.

- **Review of literature related to effectiveness of educational intervention on first aid and safety measures.**

Pinakibayans (2001) did a study to assess the effectiveness of Self Instructional Module among mothers of under five children on prevention and management of injuries in selected areas of Udupi, Karnataka. The study findings reveal that mother have poor knowledge in pretest and gained adequate knowledge in posttest. She concluded that the health professional and researchers need to impart the knowledge through various educational programme.

Kavitha Rajan (2002) an evaluator study to assess the effectiveness of Self-instructional Module on First aid and road safety among school children in selected school at Pune. A structured knowledge questionnaire was given to the school children's, where posttest knowledge was found to be higher than the pretest knowledge of school children's about first aid and safety measures.

Research Methodology:

Research Design:

A pre- experimental one group pretest - posttest design was selected.

ONE GROUP PRE-TEST POST-TEST DESIGN

Pre-test	Intervention	Post test
O ₁	X	O ₂

O₁ – Assessment of pre test level of knowledge regarding first aid and safety measures.

X - Self-instructional module regarding first aid and safety measures.

O₂ – Assessment of posttest level of knowledge regarding first aid safety measures.

Setting:

This study was conducted at Private higher secondary school, Premnagar Nagar at Jhansi. It is one of the Corporation School at Jhansi with total strength of 750 students.

Population:

The population is the entire aggregation of cases in which the investigator is interested.

Target Population:

Population includes school children among (6th -7th) std.

Accessible Population:

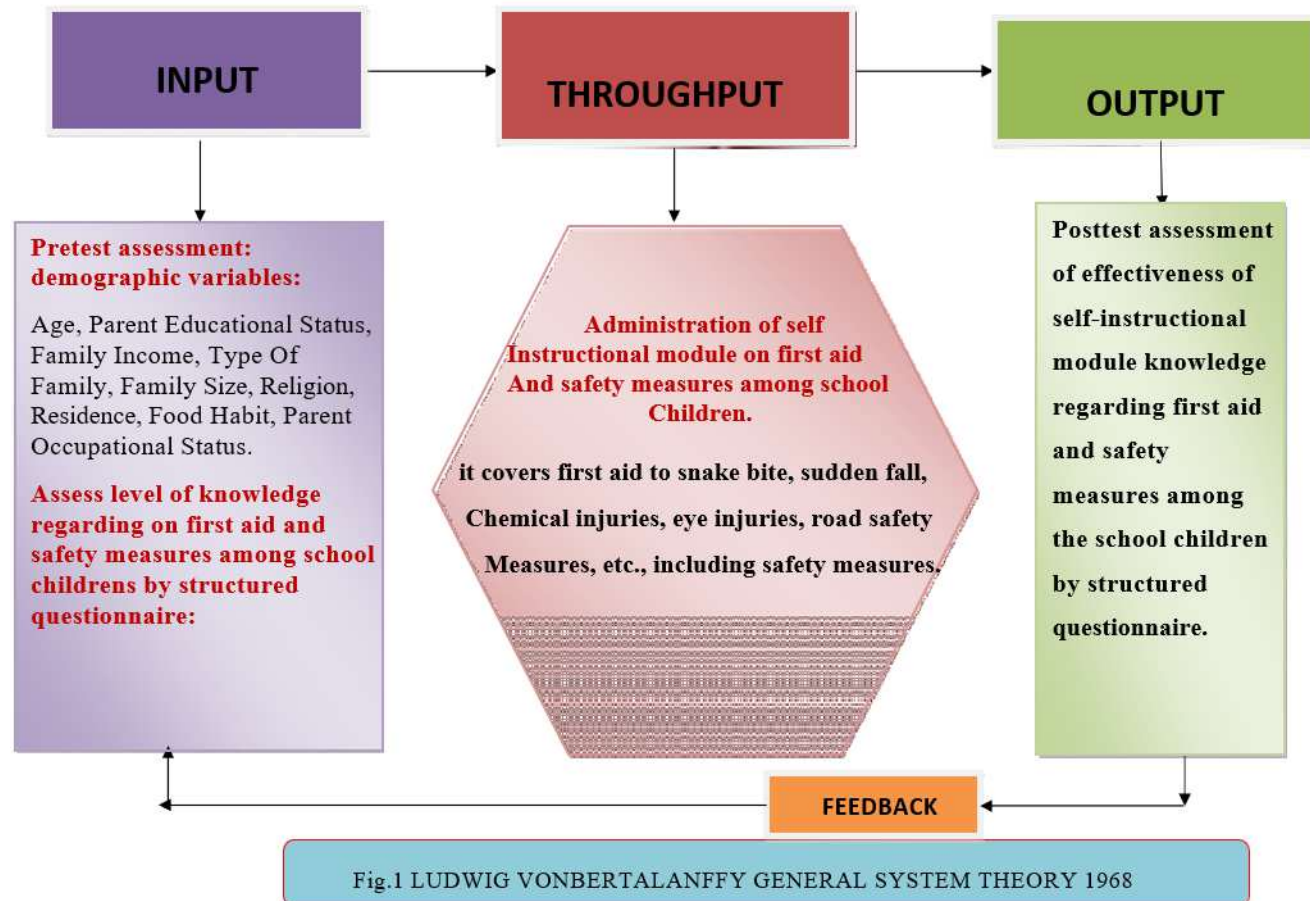
Population includes school children among (6th -7th) std. studying at Private Higher Secondary School, Premnagar Nagar at Jhansi.

Sample:

The sample of the study is the school children among (6th- 7th) std. studying at Private Higher secondary school and those who fulfilled the inclusive criteria.

Sample Size: Sample size 50.

Sampling Technique: Simple Random Sampling (Lottery Method).



Criteria for Sample Selection:

The samples were selected based on the following criteria.

Inclusion Criteria:

1. School children who were in (6th – 7th) std.
2. School children who were willing to participate in the study.
3. School children could speak, understand, read and write Hindi.

Exclusion Criteria:

1. School children who were absent during the study.
2. School children who were sick during the study period.
3. School children who were participate in pilot study.

Pilot Study:

Pilot study was conducted at Don Bosco higher secondary school at Jhansi from 11.07.2025 to 17.7.2026. 10 samples that fulfilled the inclusion criteria were selected using simple random sampling. On the first day of the study, pretest level of knowledge was assessed through structured questionnaire. On the next day of the study self-instructional module regarding first aid and safety measures were given. On the 8th day posttest level of knowledge was assessed through structured questionnaire. Findings of the pilot study revealed that the study was feasible and practicable to conduct the main study. The data collection for the main study was planned to be conducted by excluding the samples included in the pilot study.

Plan for Data Analysis:

The data collected was analyzed using both descriptive and inferential statistics.

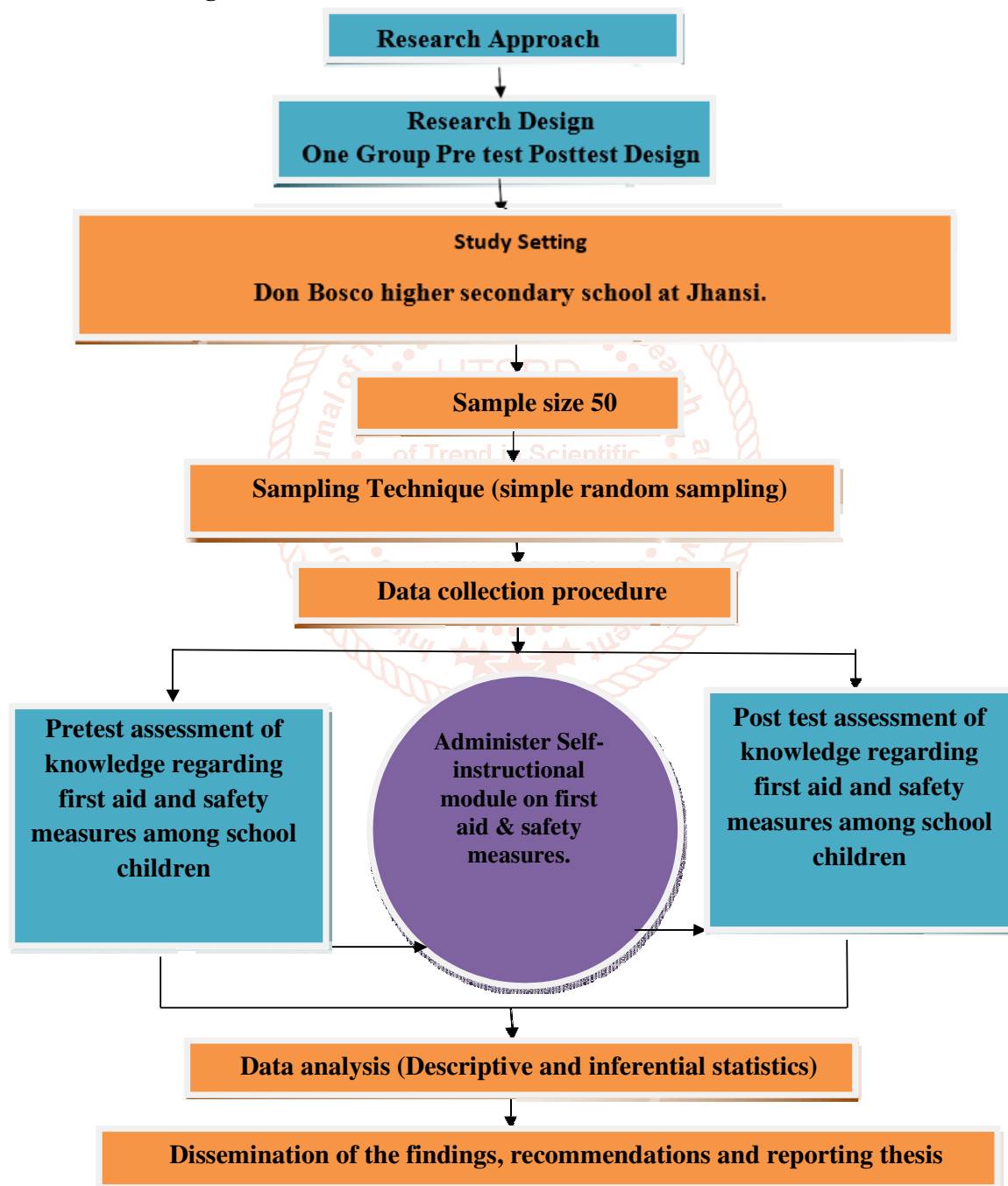
Descriptive statistics:

- Frequency and percentage distribution was used to analyze the demographic variables.
- Mean and standard deviation was used to analyze the pretest and posttest level of knowledge.

Inferential statistics:

- Paired 't' test was used to evaluate the effectiveness of self-instructional module on first aid and safety measures.
- Chi-square test was used to find out the association of posttest level of knowledge with selected demographic variables.

Fig.2. SHEMATIC REPRESENTATION OF THE STUDY



Organization of data:

The findings of the study were grouped and analyzed under the following conditions;

Section I: Distribution on demographic variables of first aid and safety measures among school children.

Section II: Distribution on level of knowledge of first aid and safety measures among school children in pretest and post-test.

Section III: Effectiveness of Self-instructional module regarding first aid and safety measures.

Section IV: Association between post level of knowledge and selected demographic variables.

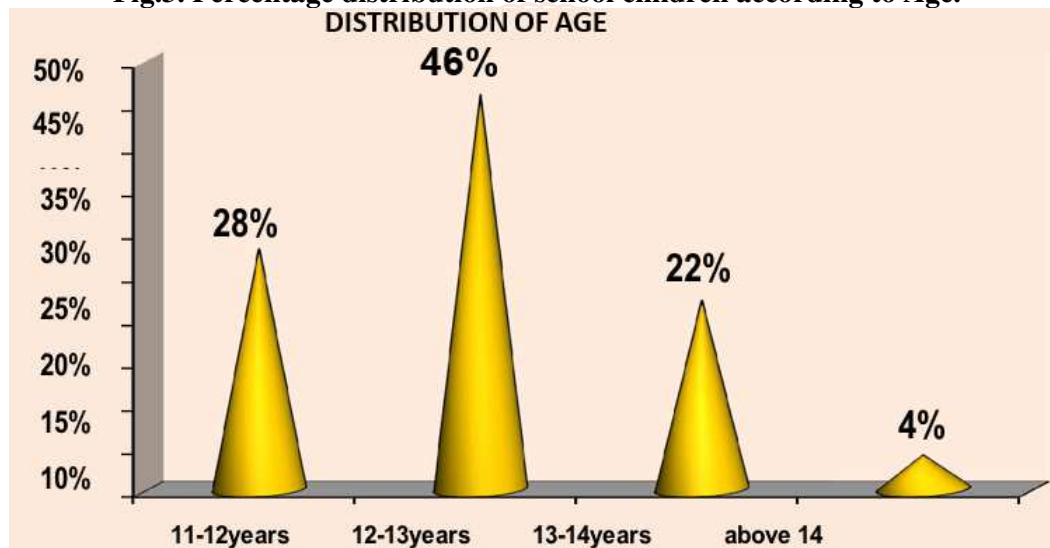
DISTRIBUTION ON LEVEL OF KNOWLEDGE REGARDING FIRST AID AND SAFETY MEASURES AMONG SCHOOL CHILDRENS IN PRE TEST AND POST TEST.

TABLE 2 Frequency and percentage distribution of pre test level of knowledge

Level of knowledge	Pre test	
	F	%
Very poor	0	0
Poor	6	12
Average	36	72
Good	8	16
Excellent	-	-

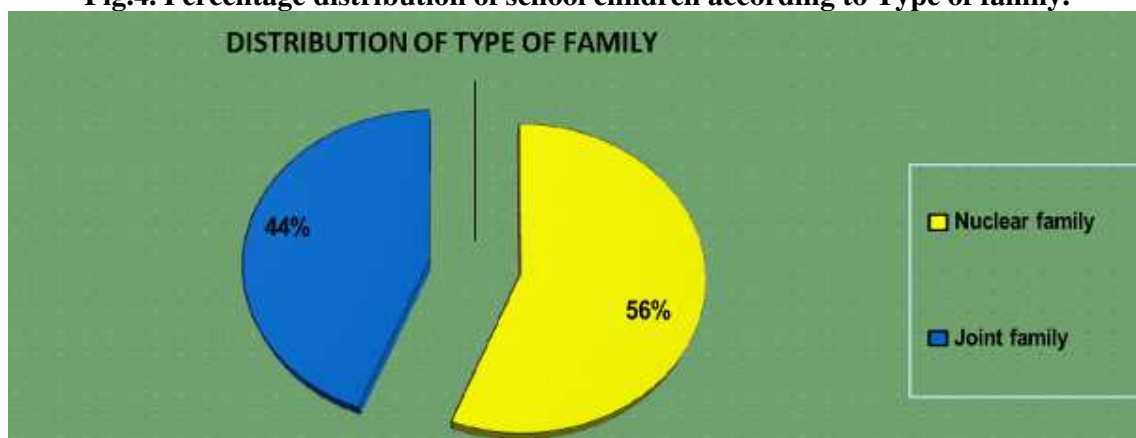
The above table reveals that 6 school children (12%) have poor knowledge, 36 school children (72%) have average knowledge, 8 school children (16%) have good knowledge

Fig.3. Percentage distribution of school children according to Age.
DISTRIBUTION OF AGE



The figure reveals, 14 children (28%) were in the age group of 11-12 years, 23 children (46%) were in the age group of 12-13 years, 11 children (22%) were in the age group of 13-14 years, and 2 children (4%) were in the age group of above 14 years.

Fig.4. Percentage distribution of school children according to Type of family.
DISTRIBUTION OF TYPE OF FAMILY



The figure reveals 22 children (44%) were living in a joint family, 28 children (56%) were living in nuclear family.

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