



# **“A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING SELECTED FIRST AID MEASURES AMONG PRIMARY SCHOOL TEACHERS OF SELECTED PRIMARY SCHOOLS OF ANAND DISTRICT.”**

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## **ABSTRACT**

### **Background of study**

Children spend most of their time in school where accidents and emergencies can occur. Teachers are often the first responders; hence, adequate knowledge of first aid is vital to ensure student safety. Many teachers lack sufficient awareness, making it necessary to evaluate and enhance their first aid knowledge through structured programme.

### **Aim:**

To assess the effectiveness of a planned teaching programme on knowledge regarding selected first aid measures among primary school teachers.

### **Material and Methods:**

A quantitative pre-experimental one-group pre-test post-test design was adopted among 60 primary school teachers selected through non-probability purposive sampling from schools of Anand district. Data were collected using a structured questionnaire and analyzed using mean, standard deviation, and paired t-test.

### **Result:**

The mean pre-test score was 13.12 and post-test 23.43 with a mean difference of 10.31. The calculated t-value 16.489 ( $p < 0.05$ ) showed a significant improvement in knowledge after the teaching programme.

### **Conclusion:**

The planned teaching programme effectively improved teachers' first aid knowledge and preparedness.

**Keywords:**

First aid, knowledge, teachers, emergencies.

**I. Introduction****“Be the help until help arrives - learn first aid” -American Red Cross**

Thousands of people encounter or observe medical emergencies each year. In times of crisis, friends, family, coworkers, or onlookers frequently offer impromptu assistance. Accidents cause 13% of disability-adjusted life years and 8% of mortality, even though deaths from accidents are unavoidable and happen before pre-hospital medical care is available.

The incidence estimates for trauma from accidents and their incidence equal one death and 18 people in need of first aid treatment per minute. A large number of people ought to receive first aid training. Bystanders were present at the accident scene prior to the arrival of medical assistance in over half of the cases, according to observational studies. These bystanders have the potential to save lives if they are willing and able to help. The most important aspect of medical science is first aid. Treating an injury or illness before professional medical assistance is available is known as first aid. One definition of first aid is when an incident witness performs rescue actions. First aid consists of evaluations and actions that a victim or bystander can carry out with little to no medical equipment. It is the initial assistance or care given to the victim of an accident or unexpected illness prior to the arrival of an ambulance or other trained medical personnel; it is carried out by utilizing the resources and facilities on hand at the scene of the incident. Students' lives revolve around school, which directly affects both their physical and emotional well-being. Due to their still developing physical and mental capacities, school children are extremely susceptible to a variety of hazards. Be prepared to work with little equipment. Every year, at least 875,000 schoolchildren under the age of 18 pass away from unintentional injuries 1 worldwide; over 95% of these deaths take place in low- and middle-income nations, and more severe injuries have been documented at educational institutions.

Wound care and bleeding control are common first aid procedures for injuries. Applying pressure to the area until the bleeding stops is the best way to control excessive bleeding. When applying pressure to the wound, gauze or another soft, clean material can be applied; it shouldn't be removed too soon. The tried-and-true technique of applying pressure to the wound should not be substituted with the poorly researched use of pressure points and limb elevation to help control excessive bleeding. Although there has been discussion regarding the efficacy and safety of tourniquets, the Red Cross advised their use in all situations where bleeding poses a threat to life in their 2020 guideline update.

The World Health Report states that the disease burden resulting from injuries has risen from around 12% in 1990 to 15% in 2000 and is predicted to reach roughly 20% by 2020. They need first aid more frequently than adults because they are more likely to be involved in accidents and sustain injuries. Such physical activity-related injuries may occur during school athletic events or while participating in extracurricular activities like swimming, cycling, and games that are arranged by the school. However, there is a dearth of data on the actual scope and trends of injuries brought on by physical activity. Among students, injuries are by far the most frequently reported cause of death. This highlights the significance of the first and second levels of school accident prevention. Giving students the right first aid as soon as they are hurt is the primary secondary preventive measure and could save their lives. First aid must be administered by qualified individuals who are present at the accident scene or nearby for it to be effective. In 2005, the American Red Cross and the American Heart Association created the National First Aid Science Advisory Board (NFASAB) to review scientific literature on first aid. The board's review found few published studies on first-aid practices and concluded that most of them are based on professional experience and expert opinion. The board then published evidence-based first aid guidelines that can be used to update training programs. These guidelines were updated several more times in the first quarter of the twenty-first century. First aid administered at the scene of an accident can be lifesaving. As a general rule, a victim should not be moved 2 if spinal injury is suspected. Advanced first-aid training should include the proper use of immobilization devices for suspected spinal injuries.

Children spend most of the time in school under the direct supervision of teachers. They are also exposed to various types of epidemiological factors in the school, which influence their present and future state of health. Teachers are typically the first responsible party to contact an injured student at school. Due to their thorough understanding of first aid management, teachers are the most qualified individuals to treat minor injuries sustained by students in school. Teachers should exhibit a high level of expertise in administering first aid in a variety of health or life-threatening situations since they are both employees of educational institutions and have a legal duty to care for children. In the event of an accident or unexpected illness, the school has certain obligations. The specific circumstances of each incident usually dictate the course of action to be taken. Extreme caution must be used in any emergency care since first aid is the care given by non professionals in the moment until professional services are available. In addition to their duties as educators, school teachers also have caregiving responsibilities, which include ensuring the security and welfare of students while they are in class. Teachers are frequently the first on the scene of accidents, which increases their responsibility to administer first aid to any injured students. Teachers frequently have to fill some of the responsibilities of the school health team because they may not always be available.

As a result, educators ought to be knowledgeable about first aid. The purpose of the study was to evaluate the knowledge and abilities of teachers. Few of them would be able to administer the proper first aid in life-threatening situations, despite their propensity to respond appropriately in cases of burns, bruises, and fractures. The study's objective was to evaluate teachers' proficiency in administering first aid in a range of adult and paediatric emergencies involving unexpected health or life threats.

Unintentional injuries are among the leading causes of morbidity and mortality in children. Given the active nature of school environments, primary schools are particularly prone to incidents requiring immediate response. Teachers, as often the nearest caregivers, must often act as first responders—but research indicates that many lack awareness of first aid or confidence in performing it. A 2019 questionnaire-based study in Karnataka found that 70% of primary school teachers were unfamiliar with the concept of first aid, and only 3 about one-third could identify basic treatment steps. In another similar study in Mangalore, just under half of the teachers had received any first aid training, and very few could perform CPR correctly; yet two-thirds were willing to learn, and trained individuals showed greater confidence.

These gaps emphasize the urgent need for integrating structured first aid training into teacher education and offering regular refreshers. Doing so could greatly enhance schools' capacity to effectively manage student injuries and reinforce a culture of safety.

### 3.1 POPULATION AND SAMPLE

In this study, the population will consist of all teachers working in primary school of selected primary schools of Anand district.

The sample of the study will consist of selected teachers working in primary school of selected primary schools of Anand district using non-probability purposive sampling technique to select the samples. Samples who met the criteria for sample selection were selected by the investigator.

### 3.2 DATA AND SOURCE OF DATA

The data collection process was carried out after obtaining permission from the respective school authorities and ensuring informed consent from all participants. Prior to data collection, our research group explained the purpose, objectives, and importance of the first aid measures to the teachers in simple and understandable language.

Confidentiality and anonymity of the participants were assured.

The data were collected using a non-probability purposive sampling technique consisting of Section A (demographic data) and Section B (Structured knowledge questionnaire). Each participant was given a printed copy of the questionnaire, and sufficient time was provided to complete it without any disturbance. Our research group remained present throughout the process to clarify any doubts and ensure honest responses.

### 3.3 CONCEPTUAL FRAMEWORK

The study is based on Ludwig Von Bertalanffy's general system model theory, which describes a system as a collection of interacting elements that work together towards a specific goal. This theoretical framework outlines four fundamental concepts: input, process (throughput), output, and feedback. The effectiveness of this cyclical system relies on the continuous interaction of these components. Any alterations within any part of the system can affect its overall performance, and feedback, whether internal or external, is crucial for evaluating if the system achieves its intended objectives.

In this context, input refers to the means through which the system gathers energy and information from its environment. The study identifies various demographic factors as significant inputs, including age, gender, educational status, and total years of experience of primary school teachers. These factors are considered important because they may influence the teachers' knowledge and attitudes towards selected first aid measures for children. The throughput component involves the processes that transform and organize this input, facilitating a reconfiguration of the information received.

The output of the system is defined as the energy, information, or matter that results from the processes within the system. In this research, output is classified into two categories: those who achieve knowledge gain and those who do not. Among those who gain knowledge, scores are further divided into good and average, while the category of no gain in knowledge is characterized by poor scores. Feedback serves as a critical mechanism that provides insights into the system's output and its implications for the input phase.

If there is no knowledge gain, it may necessitate a reevaluation and recycling of the entire process to enhance outcomes.

## I. RESEARCH METHODOLOGY

Research methodology is the systematic way to solve the research problem. It consists of all general and specific activities from identification of the problem to final interpretation and conclusion. The role of methodology is to carry out the research work in a scientific and valid manner. This section deals with the description of the methodology and different steps undertaken for gathering and organizing data for investigation. It includes research approach, research design, setting, criteria for sample selection, sampling technique, development and description of the tools, pilot study, data collection, plan for data analysis and protection of human subjects.

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#### ➤ INPUT VARIABLE

- Age group
- Gender
- Educational qualification
- Standard you are teaching
- Total years of experience
- You have attend any first aid training

#### ➤ PROCESS VARIABLE

It is the common process by which a system transforms or creates and organizes input, resulting in a reorganization of the input. In this study the samples transform and organizes the information received from the planned teaching program on selected first aid measures.

#### ➤ OUTPUT VARIABLE

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## II.RESULT AND DISCUSSION

### Results of Descriptive Statics of Study Variable

TABLE: Descriptive statics

| Knowledge before and after of Planned teaching programme | Range | Minimum | Maximum | Mean  | Std. Deviation | Mean % |
|----------------------------------------------------------|-------|---------|---------|-------|----------------|--------|
| Pretest Knowledge                                        | 10    | 8       | 18      | 13.55 | 2.00           | 45%    |
| Posttest Knowledge                                       | 9     | 20      | 29      | 23.88 | 2.26           | 85%    |



This table presents Mean, Range, SD and Mean Percentage related to Pretest and Posttest knowledge score regarding selected first Aid measures among primary school teachers of selected primary schools of Anand district. (n=60)

Regarding the pretest knowledge score, the obtained scores ranged from 8 to 18, with a mean score of 13.55, standard deviation of 2.00, and a mean percentage of 45%, which indicates that the teachers had inadequate knowledge about selected first aid measures before the planned teaching programme.

In terms of the posttest knowledge score, the obtained scores ranged from 20 to 29, with a mean score of 23.88, standard deviation of 2.26, and a mean percentage of 85%, showing a marked improvement in knowledge after the planned teaching programme.

There was a significant increase in the post-test mean knowledge score as compared to the pretest score, indicating that the planned teaching programme was effective in improving the knowledge of primary school teachers regarding selected first aid measures.

The present study entitled “*A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Selected First Aid Measures among Primary School Teachers of Selected Primary Schools of Anand District*” was conducted to evaluate the level of knowledge among primary school teachers before and after the administration of a planned teaching programme and to determine its effectiveness. The study comprised 60 primary school teachers from selected schools of Anand district. The analysis of demographic characteristics revealed that the majority of participants (31.7%) were in the age group of 21–30 years, followed by 28.3% each in the 30–40 and 40–50 years age groups, and 11.7% were above 50 years of age. More than half of the respondents (55%) were females, and 45% were males. Regarding educational qualification, 31.7% were B.Ed. qualified, 30% held a bachelor’s degree, 23.3% were PTC-qualified, and 15% had a master’s degree. In terms of teaching standards, 26.7% each taught 1st–2nd and 3rd–4th standards, while 23.3% each taught 5th–6th and 7th–8th standards. Concerning teaching experience, 41.7% had 6–10 years of experience, 30% had 1–5 years, 18.3% had less than one year, and 10% had above 10 years of experience. It is notable that none of the teachers (100%) had attended any formal training on first aid prior to the study.

Before the implementation of the planned teaching programme, the pre-test results showed that 63.3% of teachers had poor knowledge, 36.7% had average knowledge, and none had good knowledge regarding selected first aid measures. The mean pre-test knowledge score was 13.55 with a standard deviation of 2.00 and a mean percentage of 45%, indicating that most teachers had inadequate knowledge about basic first aid procedures. After the administration of the planned teaching programme, there was a remarkable improvement in knowledge levels. The post-test results showed that 68.3% of teachers had good knowledge, 31.7% had average knowledge, and none had poor knowledge. The mean post-test score increased to 23.88 with a standard deviation of 2.26 and a mean percentage of 85%, which clearly indicates the effectiveness of the educational intervention.

To evaluate the statistical significance of the improvement, a paired *t*-test was applied. The calculated mean difference between pre-test and post-test knowledge scores was 10.33 with a standard deviation of 3.32. The calculated *t*-value was 24.09 at 59 degrees of freedom, and the *p*-value was 0.000, which is highly significant at the 0.05 level. This confirms that the planned teaching programme was highly effective in enhancing the knowledge of primary school teachers regarding selected first aid measures. Therefore, the first hypothesis ( $H_1$ ), which stated that “The mean post-test knowledge score of primary school teachers will be significantly higher than their mean pre-test knowledge score after administration of the planned teaching programme,” was accepted.

The association between pre-test knowledge scores and selected demographic variables such as age, gender, educational qualification, standard teaching, and teaching experience was tested using the Chi-square test.

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