



A Quasi-Experimental Study To Evaluate Organized Teaching Programs On First Aid Management Skills Among Primary School Teachers In Barwala, Hisar, Haryana.

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Abstract

Background: From the point of view of a doctor or nurse, first aid is care that is meant to save lives and lessen the effects of illness and injury until help arrives. Kids should feel safer at home and at school, where they spend most of their time. But these places can also be bad for their health. For kids who love to explore, schools are fun, but they might not know about the risks. Their quick growth and the influence of their peers can make them do dangerous things. **The goal:** "To evaluate how effective a structured teaching program is in improving first aid management knowledge among primary school teachers in selected schools of Barwala, Hisar, Haryana." **How the study was done:** a quasi-experimental research methodology was chosen for the study. Schools in Barwala, Hisar, and Haryana were chosen as study sites. A sample. There were 60 teachers chosen for this study as a whole. They used a non-random sampling method, which is also known as a convenience sampling method. To find out how much elementary school teachers knew about first aid, a structured knowledge questionnaire was used to collect data. A self-reporting tool was used to gather information. We used both descriptive and inferential statistics to look at the data. According to the pre-test, 85% of primary school teachers didn't know enough about how to give first aid, and 15% of primary school teachers knew enough. None of the elementary school teachers knew enough about how to handle first aid. 70% of primary school teachers had enough knowledge about first aid management, 20% had average knowledge, and 10% did not know enough. This was shown in a post-test of primary school teachers. **In conclusion:** The study found that Organised Teaching Programs on how to handle choking in first aid were a good way to teach the material. Findings from the study showed that primary school teachers didn't know nearly as much before Organised Teaching Programs were put in place. After looking at the

results, it is suggested that a similar study be done again with a lot of people. More intervention studies should be done to learn more about how to help someone who is choking with first aid.

Key Words: Evaluate, Organized Teaching Program, First Aid Management Skills, Primary School Teachers.

Introduction

The safety and wellbeing of school children are of paramount importance, and school teachers play a crucial role in ensuring their students' health and welfare. School-age children are particularly vulnerable to accidents and unexpected medical emergencies, which can occur during school hours or on school premises. Teachers are often the first responders in such situations and must possess the necessary knowledge and skills to provide immediate and appropriate first aid management (**Workneh et al., 2021**).

Unintentional injuries are a major public health concern, and schools are not immune to these incidents. Studies have found that 10% to 25% of injuries to children occur while they are in school (**Medical Emergencies Occurring at School, 2008**). Besides injury-related emergencies, school children may also experience medical crises such as asthmatic episodes, diabetic complications, seizures, or even sudden cardiac events (**Medical Emergencies Occurring at School, 2008**). The increasing prevalence of children with special healthcare needs in schools further highlights the importance of teachers being equipped with first aid knowledge to manage a wide range of medical emergencies (**Medical Emergencies Occurring at School, 2008**).

The existing literature suggests that teachers' knowledge and training in first aid management is an area of concern. A study in Ethiopia found that while most kindergarten and elementary school teachers recognized the importance of first aid, their knowledge, attitude, and practice towards providing first aid were generally inadequate (**Workneh et al., 2021**).

According to the National Safety Council and the National Center for Injury Prevention and Control, a report from Houston, Texas in 2002 reveals that each year about 2.6 million people are hospitalized for nonfatal injuries, and about 60.5 million people, nearly 1 in 4, seek medical attention or suffer at least one day of activity restriction from an injury. It is important for us to know how to recognize emergencies and how to respond.

Feldman and colleagues (2004) carried out a study to examine school injuries, including their incidence, types, related factors, and initial management. They discovered that the yearly incidence rate was 5.4 injury events per 100 children, which seems to underestimate the actual injury rate. A significant 28.7% of these events resulted in serious injuries. Injuries were notably more common in elementary schools compared to secondary schools, and boys were injured significantly more frequently than girls. Most children with either minor or serious injuries were either sent to the school office or returned to the classroom, suggesting that the current level of first aid training among school staff is inadequate.

The text emphasizes that primary school teachers have significant contact with children and can play a critical role in providing health education and promoting health action. The investigator is interested in assessing the primary school teachers' knowledge of first aid for specific conditions such as epistaxis, foreign bodies in the eye, ear, and nose, wounds and injuries, and bites and stings.

Objectives:

1. To evaluate primary school teachers' current understanding of first aid under specific circumstances.
2. To ascertain the impact of a proposed educational program on primary school teachers' first aid knowledge under particular circumstances.
3. To determine whether certain demographic factors and post-test knowledge level are related.

Methodology

Research Approach: Evaluative research approach

Research Design: Quasi-experimental design

Settings: Selected schools in Baarwala, Hisar, Haryana

Sampling Techniques: Convenience sampling technique

Sample Size: 60

Sampling Criteria:

Inclusion Criteria:

1. Primary School Teachers working in Barwala primary schools.
2. Primary School Teachers are available during the period of study.
3. Primary school teachers who were willing to participate in the study.

Exclusion Criteria:

1. Primary school teachers who had undergone training on first aid.

Tool for Data Collection:

Structured knowledge questionnaire and teaching plan were prepared to assess the primary school teachers' level of knowledge of selected first aid conditions. The questionnaire was divided into two sections: section 'A' and section 'B'.

Section – A: Demographic Variables

Age, sex, religion, marital status, educational status, type of family, years of experience and previous exposure to the topic.

Section – B: Structured Knowledge Questionnaire

The assessment comprises thirty multiple-choice questions designed to evaluate the knowledge before and after the implementation of the planned teaching program. These questions are categorized into five parts as follows: **Part A** - General information on first aid (3 questions), **Part B** - First aid on wounds and injuries (15 questions), **Part C - First aid on Epistaxis (3 questions)**, **Part D** - First aid on foreign bodies (4 questions), **and Part E** - First aid on bites and stings (3 questions).

Scoring Key:

I made sure that the text is error-free. Here it is:

"It was prepared coding for section 'A', which consists of demographic variables, and for section 'B', one mark was given for a correct answer and zero for an incorrect answer. Thus, a total of 30 marks were allotted under knowledge. To interpret the level of knowledge, the scores were distributed as inadequate knowledge $\leq 50\%$, moderately adequate knowledge 51-75%, and adequate knowledge $>75\%$."

Data Collection Procedure:

Formal written permission was obtained from the Head Master of selected primary schools in Barwala, Haryana, to conduct a study involving 60 primary school teachers in April 2020. The teachers were selected using a non-probability convenient sampling technique. A pre-test was administered using knowledge questionnaires before the organized teaching program, which took place on the same day for 45-50 minutes and utilized charts and flip charts. A post-test using the same tool was conducted after seven days.

Data Analysis: The data analysis was done through descriptive and inferential statistics.

Results:

In this study, the distribution of samples were as follows according to socio-demographic variables.

According to age, majority of primary school teachers were in the age 25-29 years (40%) followed by the age 20-24 years (30%), 30-34 years (20%) and least were in the age 35-40 years (10%). Distribution according to sex of primary school teachers, 80% was female whereas 20% was male. According to residence of primary school teachers, 60% were live in rural area whereas 40% were live in urban area. Distribution according to type of family of primary school teachers 60% belongs to joint family whereas 40% belongs to nuclear family and 0% belongs to extended family. According to educational status of primary school teachers, majority of teachers were done post graduation (40%) followed by graduate (40%), 20% were done higher education and 0% were middle education (10%). Distributions according to religions, 40% were Hindu whereas 30% were others, 20% were Christian and 10% were Muslims. According to source of information, primary school teachers got 40% from television & 40% from newspaper and whereas 20% from mass media. Distribution according to first aid training of primary school teachers, 60% were trained whereas 40% were not trained. Distribution according to marital status of primary school teachers, 70% were

married whereas 30% were unmarried. According to teaching experience, majority of teachers had 8-10 years (40%) teaching experience followed by below 5 years (30%), 5-7 years (20%) and least had above 10 years (10%).

Table 1: Mean, mean percentage, and standard deviation of knowledge variables in pre-test.

N = 60

Knowledge Variables	Maximum	Mean	Mean %	Standard Deviation
General information about first aid	4	2.4	48	0.816
First aid on wound and injury	14	4.8	32.6	1.4
First aid on epistaxis	4	0.7	26.6	0.7
First aid on foreign bodies in ear, nose and eyes	3	2.05	51.6	1.03
First aid on bites and stings	5	1.12	40	0.81
Overall, Knowledge	30	11.07	38	1.92

The table 1 shows that the overall mean knowledge score during pre-test was 11.07, the mean % score was 38 and the standard deviation value was 1.92

Table 1: Mean, mean percentage, and standard deviation of knowledge variables in post-test.

N = 60

Knowledge Variables	Maximum	Mean	Mean %	Standard Deviation
General information about first aid	5	4.3	88	0.78
First aid on wound and injury	16	8.5	64.6	1.34
First aid on epistaxis	4	1.6	50.4	0.33
First aid on foreign bodies in ear, nose and eyes	3	3.6	79.8	0.84
First aid on bites and stings	4	2.9	80.4	0.52
Overall, Knowledge	30	22.02	68.2	1.79

The table II shows that the overall mean knowledge score during post-test was 22.07, the mean % score was 68.2 and the standard deviation value was 1.79

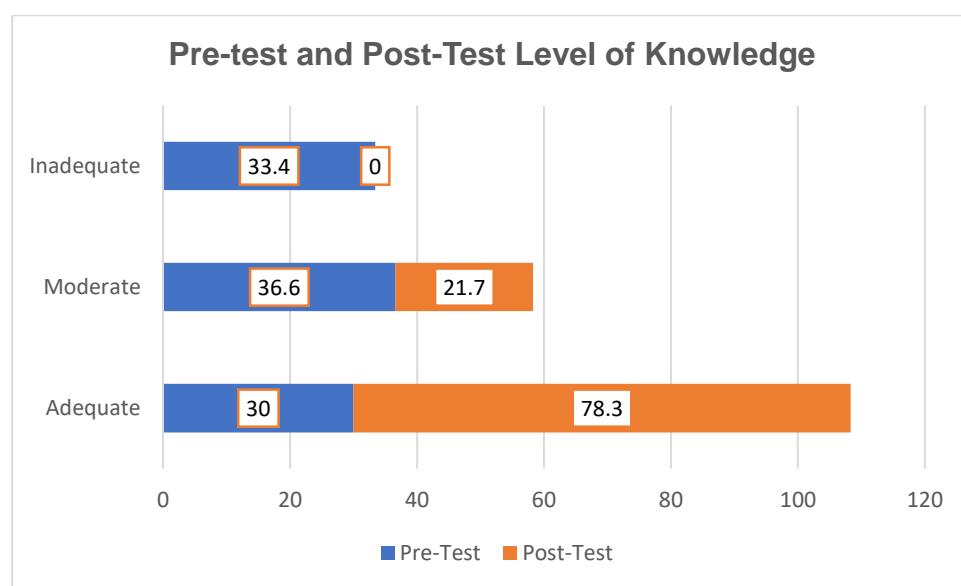


Figure – 1: Level of Knowledge

In this study, Table – I shows the pre-test and post-test levels of knowledge among school teachers regarding first aid management. Before the training, 36.6% had a moderate level of knowledge and 33.4% had adequate knowledge. After the training, 78.3% demonstrated adequate knowledge, and none had inadequate knowledge.

Conclusion

The study aimed to assess the effectiveness of structured teaching programs on first aid management. Before the training, 36.6% of school teachers had a moderate level of knowledge, and 33.4% had adequate knowledge. After the training, 78.3% demonstrated adequate knowledge, and none had inadequate knowledge. The post-test showed a significant association between teacher knowledge and socio-demographic variables such as education status, experience, and first aid training.

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