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## **A study to assess the effectiveness of video assisted teaching with demonstration on selected first aid measures among the school teachers of selected schools at Hassan**

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### **Abstract**

Children are a vulnerable population and constitute a major proportion of healthcare consumers in India, where nearly one-third of the population is below 15 years of age, making child health a national priority. School environments expose children to various risks such as accidents and injuries, and teachers, who supervise children for most of the school day, play a critical role in providing immediate first-aid care. This study aimed to evaluate the effectiveness of video-assisted teaching with demonstration on school teachers' knowledge of selected first-aid measures and to examine the association between knowledge levels and selected socio-demographic variables. A single pre-test and post-test control group design was adopted, involving 60 school teachers from selected schools in Hassan, randomly assigned to experimental (N=30) and control (N=30) groups. Baseline data were collected using a structured questionnaire, after which the experimental group received video-assisted teaching with demonstration while the control group did not receive any intervention. The findings revealed that the experimental group showed a significant improvement in post-test knowledge scores compared to pre-test scores, with the mean score increasing from  $22.87 \pm 3.58$  to  $38.30 \pm 2.15$ , while only minimal improvement was observed in the control group. A statistically significant difference was noted between the experimental and control groups at the 0.05 level, and knowledge scores were significantly associated with selected socio-demographic variables. The study concludes that video-assisted teaching with demonstration is an effective educational strategy for enhancing school teachers' knowledge of selected first-aid measures and can be recommended as a practical approach to improve teachers' preparedness in managing school-related emergencies and ensuring child safety.

**Keywords:** Hassan, demonstration, video assisted, school teachers, school-related emergencies

### **Introduction**

Life of each and every individual is a gift from God. Living a healthy life is foremost important part of our life. This precious life can be affected by both external and internal factors. Adolescence period is the most joyful and remembrance phase of life. Every individual have to be very cautious about our health and the wellbeing. Injuries are most common problems faced by the adolescence. First help is the best help so first aid is the provision of initial care for an illness or injury.

School life constitutes an important part of students' life. It has a direct impact on their physical and mental health. School students are highly vulnerable to a number of risks due to their still maturing physical and mental abilities. They are more exposed to the risks of accidents and injuries and hence require first aid more often than do adults. Such injuries relating to physical activity can take place during sporting events at school, or while engaging in extracurricular activities organized by the school such as bicycle riding, swimming, and playing games. Nonetheless, the information regarding the true magnitude and patterns of physical activity related injuries is lacking.

Injuries are, by far, the most commonly reported cause of death among students. This emphasizes the importance of first and second levels of prevention from accidents in schools. The prompt provision of appropriate first aid to students immediately after injury constitutes the main secondary preventive measure and may be lifesaving. To be effective, first aid must be provided by trained persons who are in the scene of the accident or close to it.

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At schools, the first responsible person to reach an injured student is usually the teacher. However, Başer *et al.* reported that most teachers gave incorrect answers regarding first aid management of epistaxis, fracture, choking, wound care, epilepsy. Since accidents at schools are almost daily incidents, it is likely that the first responsible adult to reach the victim in need would be the "Teacher". The school has certain responsibilities when accidents or sudden illness occur. The action to be taken is usually determined by each situation with the individual circumstances of incident. Since first aid is the immediate care provided by nonprofessionals until the professional services are made available, extreme caution needs to be exercised in any emergency care.

School teachers assume responsibilities not only as educators but also as caregivers who must guarantee the safety and well-being of children while at school. In case of any accidents, teachers are usually the first bystanders, which would increase their responsibilities regarding provision of first aid measures to the injured student. As the school health team members may not be available all the time, the teacher is often forced to assume some of their roles. Therefore, teachers should be well-versed in first aid knowledge and skill. However, they may tend to act correctly when faced with incidents of burns, bruises, and fractures, but in case of life-threatening situations, only few would be able to provide the appropriate first aid. First Aid is described as a set of condition related interventions provided to a wounded or suffering from acute illness individual. First aid provision is often a stressful situation for most educators, creating negative experiences and psycho-emotional transitions. Children and teenagers are particularly prone to accidents. In the younger age, accidents are due to the absence of the sense of danger, while in the older is a result of the need of demonstration, as a reaction to the laws and the advice of adults and the charm of adventure.

## Materials and Methods

### Research Design

The research approach is a plan and procedure that consists of the steps of broad assumptions to detailed methods of data collection, analysis, and interpretation. It is, therefore, based on the nature of the research problem being addressed and is an important element of the research design, which governs it.

The research approach selected for this study is quantitative. Evaluative research is an applied form of research that involves finding out how well a programme, practice or policy is working.

Its goal is to assess or evaluate the success of the Programme.

### Materials and Methods of the study

#### Source of data collection

Data collected from the school Teachers of selected schools at Hassan. (Using Socio-demographic variables and

Structured Knowledge Questionnaire).

### Research design

Research design can be defined as a blue print to conduct a research study, which involves the description of research approach, study setting, sampling size, sampling technique, tools and methods of data collection and analysis to answer specific research questions or for testing research hypotheses

### Setting of the study

This study was conducted in CKS School at Hassan and Christ school at Hassan.

### Population

In this study population comprise of school teachers at selected schools of Hassan.

### Sample and Sample size

Sample is the subset of a population selected to participate in the study. 100 adolescent girls who met the inclusion criteria formed the sample for the study. The sample for the study comprised of 60 school teachers of CKS School at Hassan and Christ school at Hassan.

### Sampling technique

Sampling refers to the process of selecting a portion of population to represent the entire population. In this present study Probability Random sampling technique by lottery method was used to draw the samples, which is a type of probability sampling technique.

### Results

The data collected through Structured Knowledge Questionnaire from school teachers (N=60) (30 in experimental group and 30 in control group) was analysed and interpreted.

### Presentation of the data

To begin with, the data was entered in a master sheet for tabulation and statistical processing. The data was analyzed and interpreted by using descriptive and inferential statistics. The results of data analysis are presented under the following headings.

- **Section I:** Analysis of Socio-demographic characteristics of school teachers in experimental and control group.
- **Section II:** Analysis knowledge in experimental and control group.
- **Section III:** Analysis of association of the pre-test level of knowledge with selected socio-demographic variables among school teachers.

### Socio-demographic characteristics of school teachers in control and experimental group

**Table 1:** Classification of school teachers by socio-demographic variables (N=60)

SL. No	Socio demographic variables	Categories	Experimental Group (N=30)		Control Group (N=30)	
			Frequency	%	Frequency	%
1	Age in Years	25-30 years	12	40.00%	13	43.33%
		31-40 years	8	26.67%	8	26.67%
		41-50 years	9	30.00%	8	26.67%

		51-60 years	1	3.33%	1	3.33%
2	Religion	Hindu	18	60.00%	18	60.00%
		Christian	5	16.67%	5	16.67%
		Muslim	7	23.33%	7	23.33%
		Any other	0	0.00%	0	0.00%
3	Monthly family income	Below Rs 5000	2	6.67%	7	23.33%
		Rs 5001 to Rs 10000	3	10.00%	5	16.67%
		Rs 10001 to Rs 15000	9	30.00%	7	23.33%
		Above Rs 15000	16	53.33%	11	36.67%
4	Types of family	Nuclear	16	53.33%	19	63.33%
		Joint	13	43.33%	10	33.33%
		Extended family	1	3.33%	1	3.33%
5	Education status	Graduation	11	36.67%	10	33.33%
		Post-Graduation	18	60.00%	19	63.33%
		M Phil	1	3.33%	1	3.33%
		Ph.D.	0	0.00%	0	0.00%
6	Attended any special training for first aid	First aid Fracture for	0	0.00%	0	0.00%
		First aid Epistaxis for	0	0.00%	0	0.00%
		First aid epilepsy for Any other	0	0.00%	0	0.00%
			0	0.00%	0	0.00%
		None	30	100.00%	30	100.00%
7	Source of information	Mass media	13	43.33%	15	50.00%
		Friends	4	13.33%	2	6.67%
		Internet	7	23.33%	10	33.33%
		Parents	2	6.67%	2	6.67%
		Others	4	13.33%	1	3.33%

SL. No	Socio demographic variables	Categories	Experimental Group (N=30)		Control Group (N=30)	
			Frequency	%	Frequency	%
8	Employment status as a teacher	Permanent employment	9	30.00%	9	30.00%
		Fixed term contract for a period of more than 1 school year	7	23.33%	6	20.00%
		Fixed-term contract for a period of 1 school-year or less	14	46.67%	10	33.33%
		As a part time teacher	0	0.00%	5	16.67%
9	Length of experience working as a teacher	1-2 years	8	26.67%	8	26.67%
		3-5 years	2	6.67%	0	0.00%
		6-10 years	10	33.33%	6	20.00%
		11-15 years	4	13.33%	9	30.00%
		16-20 years	4	13.33%	1	3.33%
		20 years above	2	6.67%	6	20.00%
10	Exposure to First aid	Epilepsy	0	0.00%	0	0.00%
		Epistaxis	1	3.33%	0	0.00%
		Fracture	1	3.33%	2	6.67%
		Fainting	5	16.67%	1	3.33%
		Others	0	0.00%	0	0.00%
		None	23	76.67%	27	90.00%

**Table 2:** Comparison of aspect wise and overall mean, and mean % of pre-test knowledge scores among school teachers in experimental and control group and calculated unpaired t test value, (N=60)

Aspects	Mean		Mean%		Unpaired, T-Test
	Experimental group (N=30)	Control group (N=30)	Experimental group (N=30)	Control group (N=30)	
Aspect I: Introduction to first aid	2.77	2.93	55.33%	58.67%	0.71 (NS), DF=58
Aspect II: First aid for fracture	5.00	5.60	62.50%	70.00%	1.32 (NS), DF=58
Aspect III: First aid for fainting	2.80	3.03	56.00%	60.67%	0.69 (NS), DF=58
Aspect IV: First aid for epistaxis	1.90	1.53	47.50%	38.33%	1.55 (NS), DF=58
Aspect V: First aid for open wound	3.73	3.93	53.33%	56.19%	0.68 (NS), DF=58
Aspect VI: First aid for epilepsy	3.30	3.17	47.14%	45.24%	0.43 (NS), DF=58
Aspect VII: First aid for choking	3.37	3.30	56.11%	55.00%	0.21 (NS), DF=58
Overall	22.87	23.50	54.44%	55.95%	0.63 (NS), DF=58

(S)=Significant at 0.05 Level T (0.05, 58df) =2.02

**Table 3:** Comparison of pre-test and post-test level of knowledge among school teachers in experimental group, (N=30)

Knowledge			Frequency		Frequency %	
Level	Scores	%	Pre-test	Post-test	Pre-test	Post-test
Inadequate	0-20	<50%	5	0	16.67%	0.00%
Moderate	21-31	50-74%	25	0	83.33%	0.00%
Adequate	32-42	≥75%	0	30	0.00%	100.00%
Total			30	30	100.00%	100.00%

### Conclusion

The present study was conducted to evaluate the effectiveness of video assisted teaching with demonstration on selected first aid measures among the school teachers of selected schools at Hassan. The nursing research of science is the discovery of new knowledge to improve nursing practice. Nursing scientist seeking to develop evidence-based practices in clinical and community area. The major of nursing practices to solve the everyday practices problems through the scientific method or application of fundamental knowledge and principles.

### Nursing Implications

The present study helps to understand the effectiveness of video assisted teaching with demonstration on selected first aid measures among the school teachers of selected schools at Hassan.

The finding of the study has certain important implication for nursing service, nursing education, nursing administration and nursing research.

### Nursing Service

- Health education is an important tool for a health care agency. It is one of the most cost-effective interventions to promote healthy living.
- Most of the school teachers not aware of first aid measures because of ignorance and not utilization. Use of selective preventive measures is very important as they are very helpful for providing essential first aid measures in emergency situation in school premises.
- Thus, the information provided through video assisted teaching and demonstration on selected first aid measures which help the teachers to improve their knowledge and prevention of further injuries, and promotion of health.

### Nursing Education

- The results of the study emphasized that need of learners to improving the knowledge regarding selected first aid measures.
- The topic related to selected first aid measures Thus, the information provided through video assisted teaching and demonstration on selected first aid measures which help the teachers to improve their knowledge and prevention of further injuries, and promotion of health.
- Periodic conference, seminars, symposium etc. can be arranged on effectiveness of video assisted teaching and demonstration on selected first aid measures which help the teachers to improve their knowledge and prevention of further injuries, and promotion of health.

### Nursing Administration

- Nursing administration should take interest in providing information on health education programs beneficial to public planning.
- The nursing administration can arrange in-service

education for staff members and student nurse.

### Nursing Research

- Further research studies can be conducted to increasing the knowledge regarding first aid measures.
- For generalization of video assisted teaching and demonstration could be conducted in the colleges for a longer duration f or large sample.
- Similar type of teaching program can be prepared education regarding assessment management of different first aid measures can be conducted in this area by using different methods of teaching, settings, samples and sampling techniques.

### Recommendations

**On the basis of study finding, following recommendations have been made**

- The study can be a replicate on a large sample with a control group.
- A comparative study may be conducted to find out the effectiveness between video assisted teaching and demonstration and planned teaching program regarding same topic.
- Similar study can be undertaken using other teaching strategies.
- Similar study can be conducted using larger number of samples selected by simple random sampling technique for wider generation.
- A comparative study can be conducted to assess the practice and attitude of the school teachers regarding selected first aid measures.
- A similar study can be conducted on sample, different settings with different demographic variables.

### Limitations

- The study was conducted over a small group of target population selected by non-randomized control group design: Hence generalization was done to the school teachers in selected schools of Hassan.
- Teaching plan was not based on leaning needs of the subjects under the study but on the basic of the review of literature and investigators experience.
- Extraneous variables like exposure to media, learning in college environment, peer contact or any other events occurred in the period between pre-test and Post test were beyond the investigators control as control group was used; therefore, there were possibilities of threats to internal validity.
- No attempts were made to do the follow up to check the retention of knowledge of schools teachers of selected schools at Hassan.

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