

**EFFECTIVENESS OF PLANNED TEACHING STRATEGIES ON FIRST AID  
MANAGEMENT KNOWLEDGE AMONG HIGHER SECONDARY SCHOOL  
STUDENTS OF VADODARA CITY.**

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**ABSTRACT**

*First aid is the initial and urgent care provided to anyone who has a small or significant injuries or condition. The goal of first aid lies in preserving life, preventing the condition from getting worse. First aid is typically administered by a person with only little medical training. The objectives of the study were to assess the level of knowledge on first aid management among higher secondary school students, to assess the effectiveness of planned teaching strategies on first aid management knowledge among higher secondary school students and to find out an association between the level of knowledge on first aid management among higher secondary school students with their selected demographic variables. In this study quantitative research approach and descriptive research design and convenience sampling technique was used to assess the knowledge on first aid among the higher secondary school students. A sample size of 99 students were selected for the study. A structured knowledge questionnaire was used to assess the knowledge of the students. The study findings showed that in pretest majority 58(58.6%) had poor knowledge, 39(39.4%) had average knowledge and 2(2%) had good knowledge where as in posttest majority 70(70.7%) had average knowledge and 29(29.3%) had good knowledge on First Aid Management among higher secondary school students. the association between pre-test level of knowledge on First Aid Management among higher secondary school students with their selected demographic variables revealed that previous knowledge was not found any significant association at  $p < 0.05$  level with pre-test level of knowledge on First Aid Management among higher secondary school students. Study concludes that planned teaching strategies improves knowledge about first aid in higher secondary student.*

**Keywords:** Effectiveness, Planned Teaching Strategies, First Aid Management and Knowledge.

## INTRODUCTION

Children are the future, so all cultures should place a high priority on fostering their healthy development. The major causes of death for children globally are due to injuries and accidents. Children are more likely to sustain unintentional injuries since their bodies are still growing and they haven't yet learned how to recognize their own dangers as well as those of their surroundings.<sup>1</sup>

Many of you might have heard the accidents and emergency situations in television or movies which have taken place anywhere in the world. When we see in the real life, each individual's reaction and response to the emergency or accident scene is different. Some may be confident enough to save the life by using the available services or resources; some may be in panic and behave strangely in the emergency situations.<sup>2</sup>

Since schools are where kids spend the most of their time, socialization takes place there since kids there are more active and adventurous. Regrettably, incidents at early childhood centers happen frequently. In particular, schools expose them to a variety of small wounds, fractures, hemorrhage, sports injuries, etc. Children's disabilities and deaths are primarily caused by accidents and injuries.<sup>3</sup>

Children are prone to mishaps and injuries, which can range from minor scrapes to serious ones that result in blood and fractures. For this reason, administering first aid is just as crucial as transporting a child to the hospital. Children spend the most of the day in school, are more likely to be injured owing to participation in sports and other extracurricular activities, and so need first-aid more frequently than adults. In general, outdoor physical activities account for the majority of child injuries, 20% of which happen during school hours.<sup>4</sup>

First aid is the initial and urgent care provided to anyone who has a small or significant injuries or condition. The goal of first aid lies in preserving life, preventing the condition from getting worse, or fostering recovery. It entails the full treatment of minor condition such as putting a plaster on a cut. First aid is typically administered by a person with only little medical training.

First aid is vital for saving lives. It is an emergency measure, generally consisting of simple, often life saving techniques that most people can train to perform with minimal equipment and no previous medical experience.<sup>5</sup>

First aid is usually performed by a lay person to a sick or injured casualty or person until definite medical treatment can be accessed. Certain self-limiting illness or minor injuries may not require further medical care past the first aid intervention. It generally consists of a series of simple, and in some cases potentially lifesaving, techniques that an individual can be trained to perform with minimal equipment

## METHODOLOGY

In the present study, a Quantitative approach a descriptive survey research design was used in this study to check the effectiveness of planned teaching strategies on first aid management knowledge among higher secondary school students. The study was conducted in M K high school Vadodara with a sample size of 99. A convenience sampling technique was used in the study. Tools for data collection consisted of Structured Interview schedule which consisted of 2 parts that is, socio-demographic variables such as Age, Gender, Education, Occupation of father, occupation of mother, previous knowledge. The third part consisted of Knowledge questionnaire to assess the knowledge of students regarding first aid management which had 30 questions.. After obtaining formal administrative approval from the concerning authorities and informed consent from the samples the investigators collected the data from the patients using the mentioned validated tools.

## RESULTS

The data obtained were analyzed with respect to the objectives of the study by using the descriptive and inferential statistics

### SECTION - I

**Table 1: Frequency and Percentage Distribution of Demographic Variables.**

**N=99**

S. No	Demographic Variables	Frequency	Percentage	
1	Age in years			
	<i>a.</i> 15 year	5	5.1	
	<i>b.</i> 16 year	21	21.2	
	<i>c.</i> 17 year	43	43.4	
2	Gender			
	<i>a.</i> Male	53	53.5	
	<i>b.</i> Female	46	46.4	
	3	Religion		
<i>a.</i> Hindu		78	78.8	
<i>b.</i> Muslim		12	12.1	
<i>c.</i> Christian		6	6.1	
	<i>d.</i> Others	3	3	

4	Occupation status of father	18	18.2
	<i>a.</i> Farmer	41	41.4
	<i>b.</i> Businessman	33	33.3
	<i>c.</i> Job	7	7.1
	<i>d.</i> Labor		
5	Occupation status of mother	68	68.7
	<i>a.</i> Housewife	16	16.2
	<i>b.</i> Job	4	4
	<i>c.</i> Businessman	11	11.1
	<i>d.</i> Labor		
6	Previous knowledge		
	<i>a.</i> Yes	10	10.1
	<i>b.</i> No	89	89.9

Table 1 depicts the frequency and percentage distribution of demographic variable of higher secondary school students. According to their age majority 43(43.4%) were in 17 years of age followed by 30(30.3%) were in 18 years of age, 21(21.2%) were in 16 years of age and 5(5.1%) were in 15 years of age,.

Regarding gender, more than half 53(53.5%) were male and remaining 46(46.4%) were female.

As per religion, maximum 78(78.8%) belongs to hindu, 12(12.1%) belongs to muslim, 6(6.1%) belongs to christian and 3(3%) belongs to other religion.

Regarding occupation status of father, majority 41(41.4%) were businessman, 33(33.3%) were in job, 18(18.2%) were Farmer and 7(7.1%) were labor.

As per occupation status of mother, maximum 68(68.7%) were housewife, 16(16.2%) were in job, 11(11.1%) were labor and 4(4%) were businessman.

With regard to previous knowledge on first aid management, majority 89(89.9%) had no previous knowledge on first aid management and 10(10.1%) had previous knowledge on first aid management.

**Table 2: Distribution of pre-test and post-test level of knowledge on First Aid Management among higher secondary school students.**

**N=99**

Level of knowledge	Pre-Test		Post-Test	
	f	%	f	%
Poor knowledge	58	58.6	0	0
Average knowledge	39	39.4	70	70.7
Good knowledge	2	2	29	29.3

Table 2 depicts the pre-test and post-test level of knowledge on First Aid Management among higher secondary school students.. Results revealed that in pretest majority 58(58.6%) had poor knowledge, 39(39.4%) had average knowledge and 2(2%) had good knowledge where as in posttest majority 70(70.7%) had average knowledge and 29(29.3%) had good knowledge on First Aid Management among higher secondary school students.

**Table 3: Effectiveness of planned teaching strategies on first aid management knowledge among higher secondary school students.**

**N=99**

Knowledge	Mean	SD	Mean D	t value	df	P value
Pre-test	10.10	2.859	9.96	29.51	98	0.001*
Post-test	20.16	2.947				

\*p<0.05 level of significance

Table 3 depicts the effectiveness of planned teaching strategies on first aid management knowledge among higher secondary school students which was tested by using paired t test. Mean posttest knowledge score was 20.16±2.947 was higher than pretest mean knowledge score 10.10±2.859 with mean difference of 9.96 and obtained (t value=29.51, df=98, p=0.001) was found statistically highly significant at p<0.05 level. Findings indicate that planned teaching strategies was effective in improving the knowledge on first aid management among higher secondary school students.

**Table 4. Association between pre-test knowledge on First Aid Management among higher secondary school students with selected socio-demographic variables.**

**N=99**

S. No	Demographic Variables	Pre-test knowledge			$\chi^2$ value	df	p value
		Poor	Average	Good			
1	Age in years						
	<i>a.</i> 15 year	1	4	0	5.699	6	0.458NS
	<i>b.</i> 16 year	13	7	1			
	<i>c.</i> 17 year	26	17	0			
	<i>d.</i> 18 year	18	11	1			
2	Gender						
	<i>a.</i> Male	30	23	0	2.845	2	0.241NS
	<i>b.</i> Female	28	16	2			
3	Religion						
	<i>a.</i> Hindu	46	30	2	1.589	6	0.953NS
	<i>b.</i> Muslim	7	5	0			
	<i>c.</i> Christian	4	2	0			
	<i>d.</i> Others	1	2	0			
4	Occupation status of father						
	<i>a.</i> Farmer	11	6	1	2.671	6	0.849NS
	<i>b.</i> Businessman	25	16	0			
	<i>c.</i> Job	18	14	1			
	<i>d.</i> Labor	4	3	0			
5	Occupation status of mother						
	<i>a.</i> Housewife	45	22	1	9.036	6	0.172NS
	<i>b.</i> Job	8	8	0			
	<i>c.</i> Businessman	1	3	0			
	<i>d.</i> Labor	4	6	1			
6	Previous knowledge						
	<i>a.</i> Yes	6	4	0	0.230	2	0.892NS
	<i>b.</i> No	52	35	2			

\*p value < 0.05 level of significance NS-Non Significant

No significant association is observed between n age and the level of knowledge regarding First aid management (Chi-value = 5.699, df = 6, p-value = 0.458). The level of knowledge varies across age groups.

No significant association is found between gender and the level of knowledge (Chi-value = 2.845, df = 2, p-value = 0.241).

No significant association found between religion and the level of knowledge (Chi-value = 1.589, df = 6, p-value = 0.953).

No significant association is observed between occupation of the father and knowledge level (Chi-value = 2.671, df = 6, p-value = 0.849).

No significant association is observed between occupation of mother and knowledge level (Chi-value = 9.036, df = 6, p-value = 0.172).

No significant association is observed between the previous knowledge and knowledge level (Chi-value = 0.230, df = 2, p-value = 0.892).

Table 4 depicts the association between pre-test level of knowledge on First Aid Management among higher secondary school students. with their selected demographic variables which was tested by using chi-square test. Result revealed that demographic variables such as age in years, gender, religion, occupation status of father and mother and previous knowledge were not found any significant association at  $p < 0.05$  level with pre-test level of knowledge on First Aid Management among higher secondary school students.

## DISCUSSION

The study investigated the effectiveness of planned teaching strategies on first aid management knowledge among higher secondary school students. A sample of 99 students participated in the study. Data was collected through a demographic questionnaire and a knowledge test on first aid management.

The results showed that the majority of students (58.6%) had poor knowledge of first aid management before the intervention. However, after the intervention, most students (70.7%) had average knowledge and 29.3% had good knowledge. This indicates that the planned teaching strategies were effective in improving the students' knowledge of first aid management.

*There were no statistically significant associations between the students' demographic variables (age, gender, religion, parents' occupation, and previous knowledge of first aid) and their pre-test knowledge scores.*

The study findings are supported by those conducted Saniya Mehreen, Aditya Mathur, Jitendra Jat, Ashish Pathak, which identify the level of knowledge among the school children. The study suggested that, “The analysis of student data reveals a concerning lack of first aid knowledge before the intervention”. Over half (58.6%) of the students scored poorly, highlighting a critical gap in their preparedness for emergencies. Several factors might contribute to this, such as a lack of emphasis on first aid education in curriculums or inadequate teaching methods.

Another study was done in the Sivagangai District, India, A Study on First Aid Awareness among Higher Secondary School Students in Sivagangai District present a strong case for the effectiveness of planned teaching strategies in improving first-aid knowledge among higher secondary school students. Both studies demonstrate significant improvements in first-aid knowledge after the interventions. The current study's statistically significant results ( $p < 0.05$ ) with a mean gain exceeding 10 points mirror the positive impact observed in Sivagangai District. This is further supported by the low pre-test mean scores in both studies, indicating a concerning lack of baseline knowledge. The substantial increase in knowledge scores after the interventions suggests that the teaching strategies effectively addressed this gap.

## CONCLUSION

According to study findings, that there is lack of knowledge regarding first aid in higher secondary school students. The study also shows that there is no association between the level of knowledge on first aid management among higher school students with their selected demographic variables. Study concludes that planned teaching strategies improves knowledge about first aid in higher secondary students.

## CONSENT AND ETHICAL APPROVAL

Approval from the institutional research and ethical committee (PUIECHR/PIMSR/00/081734/6001) was obtained, along with specific informed consent from the students, before conducting the study.

## CONFLICT OF INTERESTS

The authors have affirmed that they have no competing interests to declare.

## AUTHORS CONTRIBUTION

Author 1- Approval and finalization of the study's conception and design, as well as manuscript drafting.

Author 2- Collection and analysis of data, as well as interpretation of results.

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