



Impact of Skills Training Program on First Aid Management Knowledge among the Secondary School Student's

Roma Patel^{1*}, H. N. Ravindra¹, Swapnil Rahane¹ and Devraj Singh Chouhan¹

¹Parul Institute of Nursing, Parul University, Limbda, Vadodara-391760, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background of the Study: First aid involving simple but life-preserving techniques which can be performed with minimum facilities and without having any medical experience. Snowballing in the number of educated individuals, comprising the school pupils who can play a vital role in the First Aid field is an expectation of public health. The objectives of this study were to assess existing knowledge of students regarding first aid skills, to evaluate the effectiveness of organized skill training program on first aid skills. A quantitative research approach and one group pre-test and post-test research design were adopted to accomplish the main objective of the present study. 60 students were selected from the secondary school of Vadodara city by using a simple random sampling technique. Data was collected through a structured knowledge questionnaire on first aid skills. A skill training program on first aid skills was presented after the pretest. Post-test data were collected from the secondary school students after seven days of implementation of the skill training program on first aid skills. The prior consent was obtained from the students as well as their parents. The collected data were tabulated and analyzed using descriptive and inferential statistics.

Results: The results of the study discovered that among 60 respondents, the majority of the respondents (53.3%) had average inadequate & 46.7% had moderate knowledge score and in

post-test among 60 respondents, majority of the respondents 75%) had adequate knowledge, 25% had moderate knowledge score. The 't' value 57.808 was observed at 0.05 level & the P-value =0.00 which is <0.05 that shows that there is an increase in the post-test level of knowledge. This shows that the skill training program on selected aspects of first aid skills is effective. Among all socio-demographic variables, the obtained x2 value for the age demographic variable is 3.1 only age was significantly associated with posttest knowledge score, which is greater than the table of x2 at 0.05 level of significance. The remaining demographic variables gender, type of family & source available for information on first aid was less than the table of x2 at 0.05 level of significance, so they are not associated with posttest knowledge score.

Conclusion: The study finding revealed that an organized skill training program on selected aspects of first aid skills was effective among the students. The result of the present study shows that there is a great need for secondary and above standard school students to update their knowledge regarding first aid skill management of minor injuries & important aspects of first aid.

Keywords: Knowledge; skill; organized skill training program; students; secondary school; first aid.

1. INTRODUCTION

First aid is the instant care given to unexpected illness or injury while in anticipation of the arrival of medical aid. First aid to the sick and wounded has been practiced since ancient times. First aid aims to preserve life, avoid the deteriorating of the condition, and promote recovery. Injuries are very common to occur at any time at any residence whether school, home, road, or workplace. The National First Aid Science Advisory Board defined it as "assessments and interventions that can be performed by a bystander (or by the patient/victim) with minimal or no medical equipment. The avoidance of unnecessary movement prevents further injury of the victim conditions that require immediate attention to avert death include asphyxia, severe bleeding, choking, foreign bodies, poisoning, stroke & cardiac arrest [1].

First aid knowledge not only means the difference between life and death but also helps to determine the consequences. In the community accidents occur at any time like broken bones, foreign bodies dislodged in-ear, choking, burns, bleeding, loss of consciousness, trauma, etc such emergencies can lead to physical disability or death if not taken preventive action immediately. The solution to such problems is to increase awareness about first aid in the community [2]. The organized skill training program method would help the students to better understand the feelings and feelings of others as well as to verbalize them. Thus providing training of first aid through an organized skill training program will be helpful to students to learn the measures of first aid and understanding to recognize emergency situation [3].

A person with knowledge of first aid is prepared to assist others wisely and able to differentiate between what to do and what not to do & can save life & prevent further injury to become worsening. Children over the age of nine can understand and learn many first aid principles which could be helpful at an accident scene. They can learn to keep calm and help others remain calm and perform any first aid techniques that they have learned until the medical help arrive [4].

First aid consists of methods and techniques that enhance practices related to prevention, preparedness, and the immediate response to health emergencies. Teens should have information about basic first aid since emergencies to save the life of a victim. First-aid measures can be life-saving. Starting first aid education at an early age may be motivational, strengthening & helpful to first aider of young age [5].

2. METHODS

A quantitative research approach and one group pre-test and post-test research design were adopted to assess existing knowledge of students regarding first aid, to evaluate the effectiveness of organized skill training programmers on first aid skills. Socio-demographic variables were stated as age, gender, type of family, and source of information. 60 students were selected by using a simple random sampling technique. Data was collected through a structured questionnaire. A first aid skills program was presented on the topics of fainting, seizures, cuts, burns, nose bleeding, choking, heat strokes. before the students after the pre-test as an intervention. A structured

knowledge questionnaire was used for data collection, which consists of two-part. Part one Questionnaire about selected demographic variables and part two containing a structured knowledge questionnaire was used to assess the knowledge of students regarding first aid skills. Part two questionnaires contain 30 questions. The data collection was done within a given period of 2 weeks, dated 15th to 29th October 2018. For this study, the data obtained were analyzed concerning the objectives of the study by using descriptive and inferential statistics; Master data sheets were prepared; Mean, mean % and SD of the knowledge score were analyzed and Hypothesis tested.

3. RESULTS

The data depicts that the majority of the respondents (53.3%) had inadequate knowledge & 46.7% had moderate knowledge regarding selected aspects of first aid skills.

The data depicts that the majority of the respondents (75%) had adequate knowledge & 25% had moderate knowledge scores regarding selected aspects of first aid.

4. DISCUSSION

Children are more prone to injuries & accidents. Motor vehicle accidents are the leading cause of death in the adolescent years. Pillion riders may burn their legs on the exhaust pipe. Other causes are falls, drowning, and fire, so first aid is more important for youngsters. Adolescent also is the age group more prone to injuries, characterized

by increased proximity to various types of accidents and emergencies because of their curiosity & excitement towards new things. All primary school children should be provided first aid training starting in the first standard. It is very essential to provide scientific knowledge to children [6]. This study has its findings in line with other studies; Dasgupta A et al. conducted a study to evaluate knowledge about selected first-aid skills among school children with appropriate knowledge on the prevention, control, and management of common illnesses and injuries [7]. A systematic literature screening was performed independently to summarize the best available evidence concerning effective and feasible first aid techniques for snakebites [8]. A study was conducted for investigating the cases of foreign bodies in the aerodigestive tract and to elucidate the characteristic problems in India. Three hundred patients presenting with a history of either aspirating or swallowing a foreign body were analyzed in a tertiary care center [9]. A quasi-experimental study was done to evaluate the educational effectiveness for first aid skill development and awareness of safety issues and injury prevention impacting agricultural communities. The effectiveness of the program was evaluated using triangulated data. Independent t-test analysis was used on post-test scores to evaluate the knowledge acquisition and anticipatory action scores between groups. They concluded that train-the-trainer intervention to teach first aid in a school setting can be implemented to promote knowledge and skill acquisition of first aid and injury prevention among rural high school students [10].

Table 1. Description of samples according to their demographic characteristics N=60

Sr. No.	Variables	Frequency	Percentage %
1	Age of student (in a year)		
	a) 12yrs	03	5.1%
	b) 13yrs	20	33.9%
	c) 14yrs	37	61%
2	Gender		
	a) Male	28	48%
	b) Female	32	52%
3	Type of family		
	a) Nuclear family	3	5.1%
	b) Joint family	57	94.9%
4	Source of information on first aid available		
	a) No	22	37.3%
	b) Yes	38	62%

Table 2. Pretest knowledge score of the students regarding first aid skills in frequency and percentage N=60

Range of Score	Level of knowledge	Knowledge score of the participants	% of Knowledge score
0-10	Inadequate	32	53.3 %
11-20	Moderate	28	46.7 %
21-30	Adequate	---	--
Total		60	100

Table 3. Posttest knowledge score of the students regarding first aid skills in frequency and percentage N=60

Range of Score	Level of knowledge	Knowledge score of the participants	% of Knowledge score
0-10	Inadequate	--	--
11-20	Moderate	15	25
21-30	Adequate	45	75
Total		60	100

5. CONCLUSION

It was concluded that samples knowledge as well as skill improved after implementation of an skill training program on first aid skills. Secondary school Students gained a significant increase in knowledge shows that the skill training program on first aid skills was effective, it was an acceptable and useful method of teaching for Students.

CONSENT AND ETHICAL APPROVAL

Ethical clearance was obtained from concerned formal administrative authorities and informed consent was taken from the participants and their parents before the data collection process.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Samant K. First aid manual accident and emergency. Vora medical publications; 2000;1-4.
2. Hockenberry M J, Wilson, Winkelstein. Essentials of pediatric nursing.7th ed. Mosby publications; 2007;494-98.
3. Marlow DR, Redding AB. Textbook of pediatric nursing. 6th ed. W. B Saunders Company. 1114-31.

4. Research shows children lack first aid skills. British Red Cross. [Cited 2010May4]. Available:<http://www.redcross.org.uk/standard.asp?id=88738>
5. Research shows children lack first aid skills. British Red Cross. [Cited 2010May4]. Available:<http://www.redcross.org.uk/standard.asp?id=88738>
6. Source of Information: National Crime Records Bureau, Ministry of Road Transport & Highway, Law commission of India, Global status report on road safety 2013 Available:<http://sites.ndtv.com/roadsafety/important-feature-to-you-in-your-car-5/>
7. Dasgupta A, Bandyopadhyay L, Das M. Effectiveness of health education in terms of knowledge acquisition on first-aid measures among school students of a rural area of West Bengal. Medico Res. Chronicles. 2014;1(2):84-91.
8. Avau B, Borra V, Vandekerckhove P, De Buck E. The Treatment of Snake Bites in a First Aid Setting: A Systematic Review. PLoS neglected tropical diseases. 2016; 10(10):e0005079.
9. Kamath P, Bhojwani KM, Prasannaraj T, Abhijith K. Foreign bodies in the aerodigestive tract— A clinical study of cases in the coastal belt of South India. American Journal of Otolaryngology. 2006; 27(6):373-7.

10. Gururaj G. Growing burden and impact of road crashes in India: the need for a safe systems approach. International Journal of Vehicle Safety. 2014;7(3-4): 282-95.

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