

## Research Article

# Impact of Educational Program Regarding First-aid Knowledge among the Teenagers

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## ABSTRACT

**Introduction:** The teachers and teenagers spend considerable hours together within the school environment. Schools are common places where they can find a noticeable risk of physical injuries. **The aim of the study:** The aim of the study was to evaluate the impact of an educational program regarding first-aid knowledge among teenagers. **Methods:** Quasi-experimental study with one group pre-/post-test research design was used. The multistage random sample used to select the five groups and the participated 50 teenagers. A structured self-administered questionnaire such as, demographic data and assessment of first aid knowledge questionnaire was used for data collection (Pre-test and Post-test). The findings of the study revealed that mean  $\pm$  SD of teenagers age were  $36.78 \pm 7.83$ , 99% of the teenagers attended an educational program about first aid, there were statistical significant differences between total score of teenagers knowledge ( $P = 0.001$ ) in pre- and post-test. There was a statistically significant difference between the performance level of teenagers ( $P = 0.001^*$ ). **Conclusion:** The study showed that there was an improvement of teenager's knowledge and practices regarding first aid after the educational program. The study recommended that continuous educational and training programs for teenagers and public as a whole about first aid.

**Keywords:** Educational program, First aid, Teenagers

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## Introduction

Teenagers are vulnerable to physical injuries and, which may vary from minor injuries to severe problems resulting in bleeding and fractures; thus, the first-aid management becomes as important as taking teenagers to a medical facility.<sup>[1]</sup> Teenager spends most of their hours in schools,<sup>[2]</sup>

sport and are at most risk of physical injuries due to participate in sports and other extra activities and hence require first-aid more often than do adults.<sup>[3]</sup> Overall, majority of the problems among teenagers are directly related to outdoor physical activities, of which 20% occurs during school time.<sup>[4]</sup> The first level of treatment given for any physical injury before any professional first aid help provided.<sup>[5]</sup> More than 6500 eye injuries every day. More than 2000 injuries occur out of which 10–20% cause temporary or permanent vision loss. In Hong Kong every year most of the eye injuries occurs and it accounts for 8% of injury recorded in selected hospital.<sup>[6]</sup> The primary aim of first aid is to relieve suffering, improve the healing process and reduce damage.<sup>[1]</sup> First level of action taken for treatment of injuries as a first aid is very crucial as it decides the future of disease and complication rates.<sup>[7]</sup> The knowledge of first aid, when perfectly applied, can bridge the gap between temporary or permanent injury, rapid recovery, or long-term disability. In general, schools

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do not have experienced health-care professionals in their premises as a permanent employee. Hence, it is essential for the teenagers to be trained in first-aid management. Researchers reported poor or incorrect practices associated with injuries, illnesses and first-aid management. Schools need to train their students and fully equipped with first-aid facilities, to respond appropriately to the first-aid needs and requirements. They must be able to deal properly with health emergencies both in normal teenagers, and in teenagers with special health care needs.<sup>[4]</sup> Results of the school based study in a well-developed country, received first-aid training; however, the majority of them did not updated their first-aid training.<sup>[8]</sup> With this background, the present study was specially designed to assess the availability of the first-aid facilities,<sup>[9]</sup> within teenagers premises in the schools of Chidambaram Town as well as an assessment of teachers for their training on first-aid.

### Statement of the problem

A study to assess the impact of educational program on knowledge regarding first aid management among teenagers.

### Objective of the study

The objective of the study was to evaluate the impact of an educational program on first-aid management among teenagers.

### Data collection procedure

The data collection was carried for period of 30 days. After official permission was obtained from the Headmaster Rani Seethai Achi Higher Secondary School at Chidambaram, Tamil Nadu. The teenagers were selected, who with the inclusion criteria, using convenience sampling techniques. A total of 50 teenagers were selected the age of 14–16 years and the researcher met the teenagers between 3 pm and 5pm.

The samples were divided into five groups. The instrument used for the data collection was questionnaire which consists of three sections and knowledge questionnaire had five parts, on knowledge regarding first aid and management questionnaire was given to the sample for pre-test, assessing the self-administered questionnaire in 60–90 min duration followed by the educational program was given by video-assisted teaching, after the pre-test on 10<sup>th</sup>–15<sup>th</sup> days, the post-test was assessed with the same questionnaire.

Table 1 reveals the level of knowledge about the first-aid management in the pre- and post-test among teenagers. A total of 35 (70%) of them had moderately adequate knowledge, 13 (26%) of them had inadequate knowledge, adequate knowledge 2 (4%) in the pre-test and post-test before the educational program after the educational program, there was an improvement in the post-test level of knowledge showing 24 (48%) of them as having adequate knowledge and 26 (25%) of them had moderate knowledge about the first level of management among the teenagers.

Table 2 reveals the level of knowledge on injuries about first-aid management in pre-post-test among the school children. A total of 33 (66%) of them had inadequate knowledge, 16 (32%) of them had moderately adequate knowledge and only 1 (1%) of them had adequate knowledge regarding first-aid management of injuries during pre-test. After educational program, there was an improvement in the post-test level of knowledge which shows 38 (76%) of them as having moderately adequate knowledge, none of them having inadequate knowledge and 12 (24%) of them having adequate knowledge regarding first-aid management of injuries.

Table 3 depicts the association between the pre-test levels of knowledge regarding first-aid management of with selected demographic variables among the teenagers. The result showed that there was a significant association between the pre-test knowledge score and the sex of teenagers ( $P < 0.001$ ). The table also revealed that there was no significant association between knowledge score with the

**Table 1:** The level of first-aid knowledge in pre-test and post-test among the teenagers before and after the educational program ( $n=50$ )

Level of knowledge on first aid management	Pre-test, $n$ (%)	Post-test, $n$ (%)	Chi-square	$P$ -value
Inadequate knowledge	13 (26)	-	11.88	<0.001(S)
Moderately adequate knowledge	35 (70)	26 (52)		
Adequate knowledge	2 (4)	24 (48)		
Total	50 (100)	50 (100)		

**Table 2:** Level of knowledge on first-aid management of injuries in the pre-test and post-test among the teenagers before and after the educational program

Level of knowledge on injuries	Pre-test, $n$ (%)	Post-test, $n$ (%)	Chi-square	$P$ -values
Inadequate knowledge	33 (66)	-	5.41	<0.001(S)
Moderately adequate knowledge	16 (32)	38 (76)		
Adequate knowledge	1 (2)	12 (24)		
Total	50 (100)	50 (100)		

**Table 3:** Mean, standard deviation of post-test knowledge score with certain demographic variables

Demographic variables	Sub variables	n	Mean±SD	P-values
Age	14–15 years	24	22.62±7.09	0.261 (NS)
	15–16 years	26	26.14±6.76	
Sex	Male	50	22.26±5.29	<0.001 (S)
Family income	5000–10,000	20	22.56±6.16	0.352 (NS)
	10,001–20,000	30	23.88±7.21	
Type of residence	Urban	18	20.60±6.62	0.022 (NS)
	Rural	32	23.62 ± 7.21	

remaining demographic variables such as age, income of the family, and type of residence.

## Discussion

The discussion of the study findings, with appropriate review of literature, statistical analysis and to findings of the study based on the objectives of the study. The aim of the present study was to evaluate the effectiveness of educational intervention among teenagers selected schools in Chidambaram. The main study was conducted for a period of 30 days. A total of 50 teenagers were selected, using convenience sampling techniques. The purpose of the study was explained to the teenagers and consent was obtained from all the parents. The structured pre-test questionnaires were administered on the teenagers. On the same day, the educational intervention of first aid was given to them. This study shows that the level of knowledge about first-aid management in the pre-test among teenagers. A total of 35 (70%) of them had moderately adequate knowledge, 13 (26%) of them had inadequate knowledge, and adequate knowledge 2 (4%) in the pre-test before the educational program. The level of knowledge on injuries about first aid management in pre-post test among the teenagers. A total of 33 (66%) of them had inadequate knowledge, 16 (32%) of them had moderately adequate knowledge, and only 1 (1%) of them had adequate knowledge regarding first-aid management of injuries during pre-test. A quasi-experimental study effect of training program regarding first aid and basic life support on the management of educational risk injuries among teenagers. As a result of this research, it was determined that all teenagers had poor knowledge, practice regarding first aid, and basic support.<sup>[10]</sup> After 2 weeks of educational intervention, the post-test was conducted. In this study, result revealed that out of 50 teenagers, 26 (52%) of teenagers had moderately adequate knowledge, and 24 (48%) had adequate knowledge regarding first-aid management in the post-test. There was an improvement in the post-test level of first-aid management of injuries which shows 38 (76%) of them as having moderately adequate level knowledge of first-aid management of injuries, none of them having inadequate knowledge of first-aid management of injuries and 12 (24%) of them having adequate knowledge of first-aid management of injuries. Joti (2017) conducted a quasi-experimental

research design, the study was teenage conducted among teenagers. Before the educational program, the pre-test knowledge was assessed. The first-aid educational training program for 30–40 min duration given after 7 days interval the post-test was assessed. The result of the study showed that in the pre-test one of them had knowledge, 21 (42%) of them had good knowledge, and 27 (54%) teenage had excellent knowledge toward the first-aid management.<sup>[11]</sup> Regarding the effectiveness of training program about selected first-aid measures among school students, the results in this study were consistent with the findings of Muneeswari in Tamil Nadu and Sonu and Amarjit in Chandigarh, which showed that the knowledge scores improved significantly among students following planned training program.<sup>[6]</sup> The association between the post-test levels of knowledge regarding first-aid management of with selected demographic variables among the teenagers. The result showed that there was a significant association between the knowledge score and the sex of teenagers ( $P < 0.001$ ). The table also revealed that there was no significant association between knowledge score with the remaining demographic variables such as age, income of the family, and type of residence.

## Conclusion

There was a significant improvement in knowledge of the teenage regarding first-aid management of the study concluded that the educational program was effective in improving knowledge of teenagers regarding first-aid management.

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