EFFECTIVENESS OF SELF INSTUCTIONAL MODULE ON KNOWLEDGE REGARDING FIRST AID MANAGEMENT FOR SELECTED EMERGENCIES AMONG ADOLESCENTS .

Muhasin

Assistant professor, Rama College of Nursing, Mandhana, Kanpur

Abstract

A pre-experimental study was conducted on 50 adolescents studying in Ganapathy English Medium High School, Mangalore, Karnataka, selected by purposive sampling technique to evaluate the effectiveness of self instructional module (SIM) regarding first aid management for selected emergencies. A closed ended multiple choice knowledge questionnaire with 26 items regarding first aid management on selected emergencies and SIM were used to collect the data after testing reliability and validity . The questionnaire and SIM focused on general first aid, first aid for fracture, injuries and bleeding, bites and stings. Data was collected and analysed by using descriptive and inferential statistics. The results of the study revealed that almost all (98%) the adolescents had average knowledge regarding first aid management. Overall mean and SD of pre test score was 13.56±4.62 which is 52.15% whereas it was increased to 23±2.55 which is 88.46% during post test of maximum scores revealing a difference of 10 scores which is around 32% . There was also significant association between the selected demographic variables i.e. age, education and source of information and pre-test knowledge scores (P<0.05). Further the paired t-test value was 35.81which indicates that there is significant difference between the pre and post test knowledge scores(p<0.005) of adolescents

Key words: First aid Management; Adolescents; Emergencies; Knowledge; Self Instructional Module.

Introduction

Healthy children are the greatest resource and pride of nation. Investment in child's development is an investment for the future of the nation. Children ought to be healthy and happy to become productive adults in the future. We must safeguard their total health rights from the beginning to have a happy and healthy childhood.[5]

Adolescence is a period of curative madness in which every teenager has to r e m a k e h i s p e r s o n a l i t y t o f r e e himself/herself from the childhood, from parent and establish new identity. Apart from the emotional and psychological independence, an adolescent has to deal with the ongoing physical and sexual changes in body. He /she must have the intelligence to deal with external forces over which he/she has little control. Adolescents, mainly boys are very energetic at this stage and are prone to road accidents because of fast and negligent driving. They are at particular risk of violent deaths due to adventurous, great risk taking and aggressive behaviour.[12]

Accident and injury rates are increasing gradually in the world due to increase use of vehicles. In India also it has an increase trend. Reports reveal that 50% of deaths occur within the first hour of the accident, 30% between one hour and one week and 20% occur after first week. The 'golden hour' and platinum hour highlight the importance of early trauma care. Important factors responsible for increasing secondary injuries and complications are non-availability of first aid. The accidental panorama in Karnataka shows that there were 10% of deaths and 20% of injuries occurred among children (<15 years), contributed for 6% deaths and 7% injuries. Reports indicate that more than 50% of the fatal and the non-fatal cases had received some sort of first aid. Only 1% patients had been given first aid at the site of injury whereas majority of them were administered for first aid in the hospital .[8, 9]

In viewing nature of this problem, many studies revealed that the adolescents are at risk of getting accidents in and out of school, A study was conducted on evaluation of the knowledge of teachers and high school students in Silesia on principles of first aid. The objective of the study was to evaluate the level of knowledge about first aid among secondary school students and teachers.

The findings showed that out of 227 students 163 represented inadequate level of knowledge. None of teachers achieved an excellent result, 11 achieved a good result and 63 represented inadequate level of knowledge[10]. Higher level of knowledge was presented by those with a driving licence. Therefore it is felt that they need to know about the first aid management to prevent further complications due to any emergency. So it is also felt that SIM can improve the knowledge through self learning.

Objectives

☐ To assess the existing knowledge on first aid management for selected emergencies among adolescents.

☐ To assess the effectiveness of Self Instructional Module (SIM) in terms of gain in post test knowledge on first aid management for selected emergencies among adolescents.

☐ To find out the association between knowledge on first aid management for selected emergencies with

selected demographic variables of adolescents such as age, gender, education, source of information and previous exposure to any accident.

Hypotheses

H_1 – There is a significant difference between mean pre-test and mean post-test knowledge scores on first aid management of adolescents.

H_2 – There is a significant association between mean pre-test knowledge scores and selected demographic variables, such as age, gender, education, source of information and previous exposure to any accident.

Methodology

A Pre-experimental study was conducted to evaluate the effectiveness of SIM regarding first aid management among adolescents. The design was pre and post without control where experimental approach was used to collect the data. The study was conducted in Ganapathy English medium high school at

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Mangalore. Fifty adolescents were selected by convenien t samp ling technique. The research tools used to collect the data consist of a closed ended multiple choice knowledge questionnaire with one correct answer and SIM regarding first aid management of selected emergencies such as general first aid, first aid for fracture, first aid for injuries and bleeding, first aid for bites and stings. Maximum score was 26. Tool was validated and required modification were done as per suggestions of the experts .The reliability of the tool was found to be r-0.788 which indicated that the tool was reliable.

Data collection procedure: Data was collected from 8/ 8/2010 to 30/9/2010 by the investigator himself after getting a written permission from school authority and verbal permission from students. On the first day, all the students were made to sit in one room and questionnaire was given by the investigator to assess the existing knowledge and after collecting the data, the SIM was distributed on the same day to the respondants. On the 7 [th] day post test was conducted by using the same questionnaire to evaluate the effectiveness of the SIM. Data was analysed by using descriptive and inferential statistics.

Results

Major findings of the study revealed that 62% of the adolescents belonged to the age group of 14-15 years, 12-13years (26%) and 16-17years (12%).There were similar percentages (50 % o f e a c h) m a l e a n d f em al e adolescents, 36% of the adolescents were from 9 [th] standard and 32% each from 8 [th] and 10th standards , 48% of adolescents gained the information on first aid management from teachers(28%), friends (22%) and mass media (2%). Majority of them (60%) had no previous exposure to any accidents.

Bar diagram shows that most (98%) of the adolescents had an average level of knowledge during pretest and scores ranged between9-17, none of them

had good knowledge and only 2% had poor knowledge whereas during post test all (100%) the students had good level of knowledge regarding first aid manag-

ement for fracture, injuries , bleeding , bites and stings and score ranged between 18-26 which is the highest score.
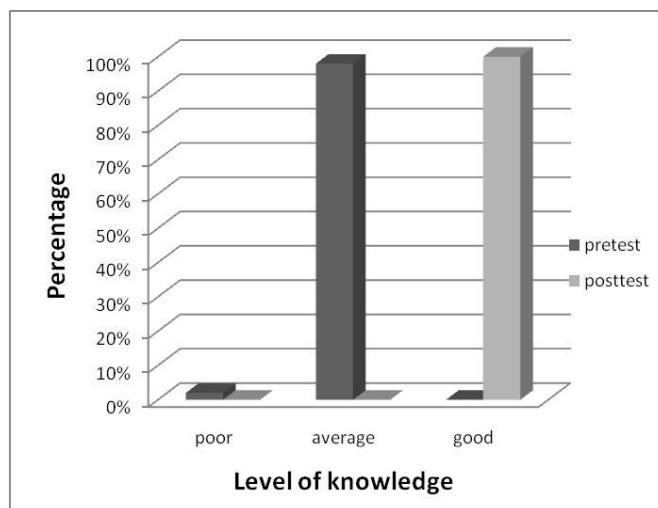

Fig: Bar diagram showing level of pre and post test knowledge of adolescents regarding first aid management for selected emergencies

Table 1: Area wise effectiveness of the SIM on First aid

Areas of first aid	Max possible scores	Pre-test(x)		Post-test(y)		Effectiven ess(y-x)
		mean±SD	Mean%	mean±SD	Mean%	Mean%
General information on first aid	7	6.32± 1.01	90.28	6.8± 0.35	98	7.72
First aid for fracture	6	3.22± 1.13	53.66	5.1± 0.68	85.3	31.64
First aid for injuries and bleeding	7	1.92± 1.19	27.42	5.6± 0.91	80.8	53.38
First aid for bites and stings	6	2.1± 1.29	35	5.5± 0.61	92.3	57.3
Total	26	13.56±4.62	52.15	23±2.55	88.46	36.31

Comparison of area wise mean and SD of the knowledge scores depict that in the area of 'general information on first aid' the pre test mean percentage was only 90.28 whereas the post test mean was 98%. In the area of first aid for fracture the pretest mean was 53.66% where as the post test mean was 85.3% shows a difference of 36.31%. The pretest mean were 27.42% and 35% in the areas of first aid for injuries and bleeding ;and first aid for bites and stings respectively whereas the post test mean were 80.8% and 92.3% in the areas of first aid for injuries and bleeding and first aid for bites and stings respectively (Tab-1).

However overall findings revealed that the percentage of post test score was higher when compared to the pre test knowledge scores and effectiveness was highest (57.3) in the area of first aid for bites and stings and lowest (7.72) in the area of general first aid. Hence, it can be interpreted that the SIM was effective in all the areas.

Tab 2: Significance of the difference b etw een p re- tes t an d p ost -t est k n owl e d ge s cores on f i rs t ai d management.

know-ledge score	Mean	SD	Mean%	't' value	Table value	Level of Significance
Pre-test	13.5	4.62	52.15%			
				35.81	1.68	Significant
Post-test	23	2.55	88.4%			

P-<0.05

Findings of paired t-test to analyse the effectiveness of SIM on the first aid management for selected emergencies among adolescents was found to be significant. It reveals that the SIM was effective in improving the knowledge of adolescents on first and management.

The chi-square and Yates correction computed between pre-test knowledge scores and selected demographic variables showed that there was significant relationship between the level of knowledge and selected demographic variables such as age, education and source of information.

Discussion

Almost all (98%) the adolescents had an average level of knowledge whose score ranged between 9-17 and none had good knowledge regarding first aid management for selected emergencies i.e. fracture, injuries and bleeding and bites and stings. It is similar to the findings of the Sosada K et.al who reported in their study on evaluation of the knowledge of teachers and high school students in Silesia on principles of first aid that out of 227 students, 7 students achieved an excellent result, 57 a good result and majority (n=163) of students had inadequate level of knowledge on principles of first aid.[10]

The overall mean percentage of the knowledge scores of the pre-test was 13.56±4.62 which is 52.15% of total score and post test mean was 23±2.55 which is 88.46 % of total score. The findings revealed that the adolescents had good knowledge in the area of general first aid but poor knowledge in area of first aid for injuries and bleeding in pretest but in post

test the scores were high in all the areas of first aid such as general first aid, first aid for fracture, first aid for injuries and bleeding and first aid for bites and stings. It is supported by the findings of Goel who reported in his study that the mean group scores for both groups (Group A and B) on combined knowledge and skills were higher at post-intervention than pre-intervention. Overall knowledge and skills increased to 43% in group B as compared to A.[4]

Difference between pre test and post test shows highly significant and is similar to the report of Kazi fouzia on 'effectiveness of planned teaching programme on first aid for selected accidents and emergencies for school children in selected high schools of Udupi district where the post-test mean knowledge score (22.10) was apparently higher than the pre-test mean knowledge score (14.60).[8]

Nursing Implications

The module can be used by the

nurses to teach the students about the first aid management. They can also teach the adults and adolescents in the community and schools for effective first aid management.

Recommendations

1. A similar study can be repeated in a larger sample.

2. A comparative study can be done between urban and rural school children.

3. A study can be done by using different methods of teaching.

4. A similar study can be undertaken with a control group design.

5. SIM can be tested for other emergencies

Conclusion

Accidents and injuries are increasing gradually among youth so they must know first aid management but they have inadequate knowledge. Therefore it essential to educate them and SIM can be useful for self learning.

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