

Effectiveness of Structured Teaching Programme on Knowledge Regarding the First Aid Home Management of Selected Emergencies among Students of Selected Technical College Calicut District, Kerala

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ABSTRACT

The present study was aimed to assess the effectiveness of structured teaching programme on knowledge regarding the first aid home management of selected emergencies. The objectives of the study were to assess the pretest knowledge on first aid home management of selected emergencies, to find the effectiveness of structured teaching programme on the first aid home management of selected emergencies and to find the association between pretest knowledge and selected demographic variables. The conceptual frame work was developed from the health promotion Model of Nola J Pender. A quantitative approach with one group pretest posttest pre experimental research design was used. The study was conducted at ATI Government College Calicut. The subjects who met the inclusion criteria were selected using convenient sampling technique. The mean pre-test score was 11.46 and post test score was with 16.30. The mean difference of pretest and post test was 4.9 which showed the effectiveness of structured teaching programme. The paired “t” test showed that ‘t’ value was 13.37 with p value less than 0.0001 which is significant at 0.05 level of significance. Thus structured teaching programme was effective among technical college students in improving knowledge regarding the first aid home management of selected emergencies. Chi-square test showed that there is no significant association between knowledge score and selected demographic variables (age, religion, type of family, gender, education of father, occupation of father, education of mother, occupation of mother).

Key words: Effectiveness, structured teaching programme, first aid.

INTRODUCTION

Injuries are very common now a days and can occur at any point of time in our day to day life. First aid is the immediate care given to a person who has been injured or suddenly fallen ill. First aid is applied to injure or ill persons in any health threatening setting in-order to save life, prevent degradation of the situation or contribute to a treatment process before professional medical care is available. ^[1] This refers to assessments and interventions

that can be performed by a bystander with minimal or no medical equipment. At some point in a medical curriculum students are taught drugs and other necessities are available. However the adequate knowledge required for handling an emergency without hospital setting at the site of the accident or emergency is necessary in our life. Basic first aid training prepares students to react to situations and provide immediate, efficient first aid home management for wide variety of incidents such as snakebite, poisoning,

drowning, foreign body aspiration, burns falls and spinal cord injury etc. [2]

Providing knowledge and training about correct management of injuries help the students to improve their health knowledge which in turn may lead to a healthy life and it may be used as a change agent in the family and community.

Because health learning gives limited emphasis for first aid in the education curriculum plan among technical students, in the same time students spend most of their educational day within college environment, which is most likely setting for many injuries due to usual works in such as falls, burns, foreign body aspiration etc. Students are the assets of the country, by providing proper education regarding the first aid management we can enable the students to perform it during the emergencies as well as they can influence their families and society for performing these during common emergencies. [3]

MATERIALS AND METHODS

The present study aimed at assessing the effectiveness of structured teaching programme on knowledge regarding the first aid home management of selected emergencies among students of selected technical college Calicut. In order to accomplish the objectives of the study a quantitative research approach pre experimental design was adopted. The study was conducted at Advanced Technical Institute Government College Calicut. In this study 60 students who met the inclusion and exclusion criteria was selected by convenient sampling method. A structured knowledge questionnaire was used to collect the data, Section A consists of demographic variables (age, religion, type of family, gender, education of father, occupation of father, education of mother, occupation of mother) and Section B consists of structured questionnaire on knowledge regarding the first aid home management of selected emergencies such as poisoning, dog bite, foreign body aspiration, burns, drowning and falls. There are total 24 items in the

tool, each correct question carry one mark and each wrong or unattended question carry zero mark. The score were arbitrarily classified in to good knowledge (17-24), average knowledge (19-16) and poor knowledge (0-8). The content validity of tool it was established by giving the tool to 5 experts from the field of Medical surgical nursing, Pediatric nursing, Obstetrics and Gynecological nursing and fundamentals of nursing. The content validity index of the tool was 0.91. The pilot study was done among 6 subjects and the study found to be feasible. Formal administrative permission to conduct the study was taken from Principal, MIMS College of Nursing. IEC permission was taken from, MIMS College of Nursing ethics committee. Permission for conducting the study was taken from Principal, Advanced Technical Institute Calicut. Written informed consent was obtained from each study participant. The data collection was done in June 2018. The purpose of the study was explained to each sample and informed consent was obtained. Basic information was collected using a demographic proforma and pretest knowledge was assessed using a structured knowledge questionnaire. Total 30 minutes was taken to administer the questionnaire. Structured teaching programme which contains first aid measures of selected emergencies such as poisoning, dog bite, foreign body aspiration, burns, drowning and falls with help of power point presentation and simulation was administered to all the samples. Total duration of the structured teaching program was one hour. After 7 days, post test was done by using the same knowledge questionnaire from the study subjects. The data collected were tabulated and analyzed in term of objective of study using descriptive and inferential statistics.

RESULT

The obtained data were categorized and analyzed in terms of the objectives and hypothesis of the study by using descriptive and inferential statistics. Data were analyzed

using statistical software SPSS version 17. Demographic variables were analyzed using frequency and percentage distribution. Pretest and posttest knowledge score were analyzed using frequency, percentage, mean and standard deviation. The effectiveness of structured teaching program was analysed by using paired 't' test. Association between the pretest knowledge score and selected demographic variables were analyzed by using Chi-square test.

Section 1: Frequency and percentage distribution of socio demographic variables of technical college students.

Table 1: Demographic characteristics with frequency and percentage N=60

Demographic characteristics	frequency	percentage
Age		
19-34	30	50
35-50	27	45
51-65	3	5
Religion		
Hindu	53	88.3
Muslim	4	6.7
Christian	3	5.0
Type of family		
Nuclear	31	51.7
Joint	25	41.7
Extended	4	6.7
Gender		
Male	39	65.0
Female	21	35
Education of father		
No formal education 19	31.7	
High school	26	43.3
Degree/diploma	15	25.0
Occupation of father		
Govt/private employee	15	25.0
Self-employee/daily wages	18	30.0
No occupation	27	45.0
Education of mother		
No formal education	21	35.0
High school	29	48.3
Degree/diploma	10	16.7
Occupation of mother		
Govt/private employee	5	8.3
Self-employee/daily wages	6	10.0
Home maker	49	81.7

Section 4: Effectiveness of structured teaching programme on first aid home management

Table 4: Paired t test of knowledge score

Assessment	Mean	Standard deviation	Mean difference	't' value	df	'p' value
Pretest	11.40	2.763	4.9	13.37	59	0.001
Posttest	16.30	3.391				

*significant at 0.05 level of significance

Table 4 showed that pretest mean score was 11.40 and standard deviation was 2.763, posttest mean score was 16.30 and standard deviation was 3.391. The mean difference

Table 1 showed that 50% of the participant belongs to age group of 19 -34 year , and 45% belongs to age group of 35-50 years and 5% belongs to age group of 51 -65 years. Majority of the participants, 88.3% belongs to Hindu religion, 6.7% were Muslims and 5% were Christians. Among total sample 65.0% were males and 35.0% were females. Regarding education of father, 31.7 % have no formal education. Regarding occupation of father 25% had government /private employee, 30 % were self-employed and 45% had no occupation. 35% of the participants' mothers have no formal education and 81.7 % were home makers.

Section 2 : Description of pretest knowledge score on first aid management

Table 2 : pretest knowledge score N= 60

Mean	Standard deviation
11.40	2.763

Table 2: showed that pretest mean score is 11.40 and standard deviation is 2.763. The total score was in 24

Section 3: Description of posttest knowledge score on first aid management

Table 3 : Posttest knowledge score N = 60

Mean	Standard deviation
16.30	3.391

Table 3 showed that posttest mean score is 16.30 and standard deviation is 3.391.

was 4.9, 't' value is 13.37, degree of freedom (df) is 59 and 'p' value is 0.001 which is below 0.05, hence null hypothesis is rejected and accepting research

hypothesis. Thus the structured teaching programme on first aid home management of selected emergencies was effective in improving the knowledge among students of technical college Calicut.

Section 5: Association between knowledge on first aid management of selected emergencies with selected demographic variable

Table 5: Association between knowledge score and selected demographic variable by using Chi square test. N = 60

Demographic data	Chi square	df	P value
Age	2.90	4	0.57
Gender	1.59	2	0.45
Type of family	3.4	4	0.48
Education of father	.84	4	0.93
Occupation of father	3.8	4	0.42
Education of mother	2.6	4	0.61
Occupation of mother	7.4	4	0.11

Pearson Chi square test was done to find the association between pretest knowledge score and selected demographic variables. The result showed that there is no significant association between pretest knowledge on first aid management with age ($p = 0.57$), Gender ($p = 0.45$), type of family ($p = 0.48$), education of father ($p = 0.93$), occupation of father ($p = 0.42$) education of mother ($p = 0.61$), occupation of mother ($p = 0.11$) at 0.05 level of significance.

DISCUSSION

The present study aimed to assess the effectiveness of structured teaching programme on knowledge regarding the first aid home management of selected emergencies among students of selected technical college Calicut. In this study the pretest mean knowledge score was 11.46 with standard deviation of 2.76 and the mean posttest knowledge score was 16.30 with standard deviation of 3.39. The study showed that there is significant increase in the level of knowledge among technical students after the session of teaching programme.

A similar study was conducted on effectiveness of planned teaching programme on first aid for selected accidents and emergencies for school

children in selected high schools of Udupi District. The objective of the study were to determine the level of knowledge of high school children regarding first aid for selected accidents and emergencies as measured by a structured knowledge questionnaire before and after administration of planned teaching programme. The sample consists of 56 high school children of 9th standard from Manipal Pre-University College. The result showed that in the pretest maximum students 43 (76.78%) had average knowledge and only one student had good knowledge where as in the post test majority of the students 34 (60.71%) had average knowledge on and 22 (39.29%) student had good knowledge. The posttest mean knowledge score (22.1%) was apparently higher than the pretest mean knowledge score (14.6%).^[4]

Another study was conducted to evaluate the effect of structured first aid education training course among secondary school students in Makka City. A questionnaire was given to 220 students. The study revealed that 104 (47.3) were boys and 116 (52.7) were girls between the age group of 16-18 years. Among them 50 students had attended a first aid course before among them 16 were boys and 34 were girls. Total knowledge percentage has increased from 73.3% to 83.6%. There was a significant difference between male and female (P value < 0.05) in pre and post knowledge score. Good knowledge increased by 25.9% in females as it changed from 65.5% to 91.4% post intervention. However, in males good knowledge surprisingly decreased by 4.8% from 79.8% to 75% after the intervention. The mean knowledge score increased significantly from $69\% \pm 15$ into $75\% \pm 15$ post intervention. The total behavior after the intervention showed statistically significant change as total behavior percentage increased by 85.5% and increased from 9.50% to 95.0%. The mean behavior score increased significantly from $46\% \pm 12$ to $79\% \pm 11$. There was no significant

difference between male and female in pre and post behavior score. [5]

CONCLUSION

The present study revealed that the knowledge regarding first aid among college students is less and proper first-aid education can enhance the knowledge of the students. So the first aid content should be made compulsory in school and college syllabus. This would enhance their skills toward emergency management of injuries and thus reducing the impact of such injuries and will help in preventing further damage. Furthermore, first aid course should be updated at regular intervals throughout different study levels.

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