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A Study to Assess Effectiveness of Structured Teaching Programme on Knowledge Regarding First Aid among Drivers in Selected City

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Abstract: ***Objectives: 1.To assess the existing knowledge of drivers regarding first aid. 2. To evaluate the effectiveness of structured teaching program on knowledge regarding first aid among drivers. 3. To find out the association between pre- test knowledge score with selected demographic variables. Methods: The research design selected for the study was a quasi- experimental design. The setting was selected school/college of selected city. The sample includes drivers; sample was selected using simple probability random sampling. The Structured knowledge questionnaire was used to collect data from samples. Result: Analysis of the pre- test knowledge scores of drivers revealed that in the pre- test out of 30 drivers majority of 26(86.66%) drivers had poor knowledge, 4 (13.33%) had average knowledge and 0 (0%) had good knowledge regarding of first aid. The analysis of the post - test knowledge scores of drivers revealed that in the post- test out of 30 drivers majority of 23 (76.66%) drivers had average knowledge, 7 (23.33%) had Good and 0 (00%) had poor knowledge regarding First aid. Interpretation and conclusion: The findings of the present study showed that, the post-test knowledge score was higher than the pre-test knowledge score range. The hypothesis are proved and accepted.***

Keywords: First Aid, Drivers

1. Introduction

"Learn first aid, be the hero". -JFRC

According to American nurses association (ANA) (1973): Community Health Nursing is a synthesis of nursing practice and public health practice applied in promoting and preserving the health of populations. The nature of this practice is general & comprehensive. It is not limited to particular age or domestic group. It is continuous and not episodic. The dominant responsibility is the population as a whole. Therefore nursing directed to individuals, families or group contributes to health of total maintenance.

The instances of recorded first aid were provided by religious knights, such as the "knight hospitaller" formed in the 11th century, providing care to pilgrims and knights. The term "firstaid" was first coined in 1878 as civilian ambulance services spread through the empire through organizations such as St. John ambulance starting in the U.K with high risk activities such as ports and railways. Many developments in first aid and many other medical techniques have been driven by wars .Today there are several groups that promote first aid such as military and the scouting movements. New techniques and equipments have helped make today's first aid simple and effective.

2. Need of the Study

The rise in accidents for adolescents may be related to traffic accidents caused by those with newly acquired driving licenses (there were 15174 traffic accidents involving personal injury in 2012 in Hungary, in which 605 were fatal). The statistics show that more young people between 0–24 aged group die in different types of accidents, than all the other reasons. In Hungary about 24,000 children are hospitalized every year, from which about 300 involve fatalities. A significant risk group are consisted of kindergarten children (3–7 years old), because they are often involved in accidents. Thus, it will be important to have a person close to the child who has appropriate knowledge about accidents because with proper attention they can be prevented.

Proper training and reinforcement of first aid skills in professional drivers may play a major role in prevention of complication, preserve life and decrease the death of may accident victims training package on first aid to professional drivers will improve their competency in providing first aid to victims of accidents.

3. Review of Literature

Mohamed H. El-Sharkasy (2015) Impact of First Aid Training Program for Car Drivers about Road Traffic Injuries in Port Said Quasi-experimental study. This study was carried out in Port Said Governorate at Port Said car stations. It was carried out on 100 car drivers. Two tools were used to collect data. However, there was significant improvement in knowledge and practice of the entire sample after implementation of the program. The total of knowledge and practice were highly statistically significant. The researcher concluded that The implemented program about first aid for road traffic injuries had a significant impact on car-drivers knowledge and practice.

4. Assumption

The study assume that

- Drivers may have some knowledge regarding first aid.
- Structured teaching programme will enhance the knowledge of drivers regarding First aid.
- Driver"s level of knowledge will be influenced by demographic variables.

5. Limitations

Following are the limitation of the study, it include;

- The study is limited to only for School/college bus drivers.
- The sample size is limited to 30 subjects.
- The study is limited to School/college bus drivers who are willing to participate in the study.
- Samples those are available during the data collection period.

Hypothesis

- HO1: There will be no significant difference between the pre-test and post- test knowledge score regarding first aid among drivers.
- HO2: There will be no significant association between pre-test knowledge) score with selected demographic variables.
- H1: There will be significant difference between the pre-test and post-test) knowledge score regarding first aid among drivers.
- H2: There will be significant association between the pre- test knowledge) score with selected demographic variables.

6. Methodology

Research approach: Evaluative approach was used for this study.

Research Design: Quantitative, Quasi-experimental, one-group pre-test, post-test design.

Variables under study: 1) The independent variable in the study was structured teaching programme on first aid. 2) Dependent variable in the study was knowledge of school/college bus drivers on first aid.

Setting: The study was conducted in the School/colleges in selected city.

Population: The population includes bus drivers in school/colleges in selected city.

Target Population: Consists of colleges and schools bus drivers.

Sample and sampling technique

Sample: In the present study sample is school/college bus drivers .

Sample size: The sample size for the present study is the sample size for the present study is who fulfill the set inclusion criteria.

Sampling Technique: Probability simple random sampling

Inclusion Criteria

Drivers included in the study, those who are,

1) Able to read, write and understand Marathi.
2) Working in schools.
3) Working in colleges.

Exclusion Criteria

Drivers excluded from the study , those who are,

1) Undergone for first aid training course
2) Not willing to participate in the study.
3) Not available at the time of data collection.

Tools Preparation

Tool used for the research study was structured questionnaire, regarding first aid among school/college bus drivers. The tool was prepared after extensive review of literature search, consultation with experts, and based on the past clinical experience of the investigator.

Development of Tools

The research instrument consists of two parts:

Part I-Demographic data: It consist of 5 items related to demographic variables such as age, marital status, educational status, previous knowledge and year of experience.

Part II– Structured knowledge questionnaires:- It consists of 30 items. Each item was multiple choices with 4 responses.

Preparation of structured teaching programme (STP): The title of the Teaching plan was "Knowledge regarding first aid" The Structured Teaching Programme was consists of the following contents definition, Questions related to hemorrhage, Questions related to heat stroke, Questions related to lifting the Casualty.

Validation of the tools: To ensure the content validity the instrument was given to 10 experts from different field of Community Health Nursing, MD in Community medicine, and from biostatistician. The experts were requested to give their opinions and suggestions regarding the relevance, adequacy and appropriateness of the tool. Their suggestions were taken into consideration and the modifications were incorporated in the preparation of the tool and Structured Teaching Programme.

Reliability: In order to establish reliability of the tool, by Split half method was used. 6 samples were taken to check the reliability. Reliability of the tool was 0.96 which showed that tool was reliable.

Feasibility of the study: The investigator conducted a Pilot study.

Pilot study: The pilot study was conducted in School/Colleges, from1/1/2019 - 7/1/2019 on bus drivers from selected city, to assess the feasibility of the study and to decide the plan for analysis.

Data Collection Procedure: Prior permission will be taken from the School/colleges in selected city. Informed consent will be taken from study participants and data will be kept confidential. The period of data collection was from 9/1/2019-30/1/2019.The data was collected by investigator herself. The data was collected by the investigator. Pretest was conducted on schools/colleges bus drivers who fulfill the inclusion criteria soon after the pre-test structured teaching programme was administered. Evaluation was done

by conducting post-test after 7 days of administration structured teaching programme by using the same structured questionnaires.

Plan for data analysis: 1) Description of demographic characteristics of the subjects was computed by using frequency and percentage. 2) Mean, Standard deviation of pre and post- test knowledge scores was¬ computed. 3) "t" test was applied to determine the significance of mean difference between mean pre-test and post- test knowledge scores. 4) Chi- square test was used to find the association of knowledge score with demographic variables and the findings were documented in tables, graphs and diagram.

Scoring Mode: Score 1 was given to every correct answer. 0 was given to every wrong answer. Based on the percentage of scores, level of knowledge was graded as Poor- 0 to10 Average- 10 to 20, Good- 20 to 30.

7. Result

Organization of the data: The collected data is tabulated, analyzed, organized and presented under the following sections:

Section –I Description of Drivers With Regards To Demographic Variables

Table 3: Shows the frequency and percentage distribution of demographic variables

Sr. No.	Variable	Groups	Frequency	Percentage
1.	Age	18-28	13	43.33
		29-38	15	50
		39-48	2	6.66
		49-58	0	00
2.	Marital Status	Married	22	73.33
		Unmarried	8	22.66
		Divorced	0	00
		Separated	0	00
		Widow	0	00
3.	Education	Primary	3	10
		Secondary	9	30
		Higher Secondary	11	36.66
		Graduate	7	23.33
		Post-Graduate	0	00
4.	Previous knowledge regarding First Aid	Yes	10	33.33
		No	20	66.66
5.	Year of Experience	0-5 Year	11	36.66
		6-10 Year	14	46.66
		11-12 & above	5	16.66

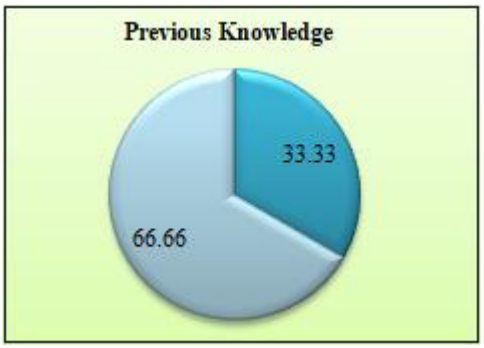

Figure 1: The pie diagram shows percentage distribution of drivers based on previous knowledge

Section-II

Description Of Pre-Test Knowledge Score Of Drivers Regarding Knowledge Of First Aid By Using Frequency And Percentage Of Pre-Test Knowledge Score.

Table 9: General assessment with pre-test m, N=30

	Groups		Frequency	Percentage
Pre Test	0-10	Poor	26	86.66
	11-20.	Average	4	13.33
	21-30	Good	0	0.00
	Total		30	100.00

Section III

Description of Post- Test Knowledge Score of Drivers Regarding Knowledge of First Aid by Using Frequency and Percentage of Post Test Knowledge Score.

Table 10: General Assessment with Post –Test, N=30

	Groups		Frequency	Percentage
Post Test	0-10	Poor	00	00.00
	11-20.	Average	23	76.66
	21-30	Good	7	23.33
	Total		30	100.00

Section IV

Description of Effectiveness Of Structured Teaching Programme On Knowledge Regarding First Aid Among Drivers.

Table 11: Showing Mean Percentage of Pre Test and Post Test Knowledge Score

Group	Frequency	Average
Pre Test	30	7.26
Post Test	30	17.8

Testing of hypothesis: Paired t value of pre- test and post -test knowledge score

Table 13: Significance of Difference between Knowledge Scores in Pre and Post- Test Among Drivers

Group	Frequency	Mean	S.D.	t value	P value
Pre Test	30	7.26	3.20	27.10	0.00001
Post Test	30	17.8	3.85		

Here p value is less than 0.05 hence there is significant difference between pre and post test knowledge scores. The null hypothesis (H01) stated there is no significant difference between pre test and post test knowledge. So the

null hypothesis (H01) was rejected and (H1) hypothesis was accepted.

Section –V

Description on the Pre Test Knowledge Score in relation To The Demographic Variables.

Table 14: Association of knowledge of drivers regarding first aid with their selected demographic variables

Sr. No.	Variable	Groups	Pre Test		Chi Square	d.f.	p value	Significance
			Poor	Average				
1.	Age	18-28	11	2	0.30	3	0.95	Not significant
		29-38	13	2				
		39-48	2	0				
		49-58	0	0				
2	Marital Status	Married	19	3	0.0059	4	0.99	Not significant
		Unmarried	7	1				
		Divorced	0	0				
		Separated	0	0				
		Widow	0	0				
3	Education	Primary	3	0	15.21	4	0.00003	Significant
		Secondary	9	0				
		Higher secondary	11	0				
		Graduate	3	4				
		PG	0	0				
4.	Previous knowledge	Yes	6	4	9.24	1	0.0000	Significant
		No	20	0				
5.	Year of Experience	0-5 Year	10	1	0.38	2	0.82	Not Significant
		6-10 Year	12	2				
		11-12 &above	4	1				

Significant- $p<0.05$

In that variable like educational status, and previous knowledge were significantly associated with pre- test knowledge. demographic variable such as, age , marital status and year of experience so there **is no association between pre-test level of knowledge** about first aid and above mentioned demographic variables.

The null hypothesis (H01) stated that there is no significant association between pre test knowledge score with selected demographic variable.

So the null hypothesis (H02) was rejected and (H2) **hypothesis was accepted**.

8. Summary

- Majority of 15 (50%) of drivers were in the age group of 29-38years, 13(43.33%) were in the age group of 18-28years, 2(6.66%) were of 39- 48years and 0(0%) were belongs to the age group of 49-50year.
- Majority of 22 (73.33%) of drivers were married, 8 (26.66%) were unmarried, 0 (0%) of were divorced and rest 0 (0%) were widow.
- Majority 11(36.66%) of drivers were educated up to higher secondary, 9(30%) were secondary, 7 (23.33%) were graduate, 3 (10%) were primary and rest 0 (0%) were post graduate drivers.
- The demographic variables such as educational status, and previous knowledge regarding first aid are having association with pre -test knowledge about first aid and demographic variables such as age, marital status, Year of experience and had no association between pre-test level of knowledge regarding first aid

9. Conclusion

The mean of post test score (17.8%) was higher than the mean of pre- test knowledge score (7.26%). The study findings concluded that drivers had poor knowledge regarding first aid. The structured teaching programme had great potential for accelerating the awareness regarding first aid among drivers.

10. Recommendations

- Driver's awareness about first aid should be maintained through mass media, booklets, and brochures.
- Teaching programme on first aid of selected measures like hemorrhage, heat stroke and lifting the casualty and immediate action on emergency should be introduced among high risk people in different settings.
- The study can be replicated on a large scale for wider generalizations.
- The study can be conducted on the basis of assessing knowledge, attitude