

A study to evaluate the effectiveness of Planned Teaching Programme on Knowledge and Skill regarding Selected First Aid Management among NSS students in selected Arts and Science Colleges at Puducherry.

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ABSTRACT:

A quantitative study (**one group pre-test and post-test design**) was carried out “to evaluate the effectiveness of Planned Teaching Programme on Knowledge and Skill regarding Selected First Aid Management among NSS students at selected Arts and science colleges at Puducherry”. A total of 100 NSS students were selected by using Stratified Random Sampling method. The demographic data was collected from the student who fulfilled the inclusion criteria and planned teaching program regarding first aid management was shown after conducting pre test. One week after the planned teaching program, post test was conducted. The knowledge was assessed through administration of structured questioner and skill was assessed by check list. Data collected were analyzed by using descriptive and inferential statistics. Among 100 NSS students 98% of students had inadequate knowledge. After providing the planned teaching program their knowledge level increased to 83% with 100% level of skill.

Key words: First aid, Arts and science colleges, NSS students.

INTRODUCTION:**“What is done to the student, they will do to the Society”**

Accidents can occur at any time and at any place usually at odd times and at places where a doctor would not be expected to be. Medical help can be obtained easily and quickly in a city but not in a village or not when people have gone for a picnic. Even in cities, some of the emergencies are such that unless immediate action is taken, a life may be lost. If a man chokes on a fish bone in hotel, unless the waiter or a co dinner knows how to get it out, he may die before a doctor appears on the scene. The same thing applies to a child who chokes on a cookie or a marble as it is swallowed while playing.

The idea of “First aid” was conceived by general Esmarch, a famous German surgeon. Formation of St. John ambulance association in 1877 was the beginning of an organized world-wide effort for giving first aid. The Red Cross is a worldwide organization. Which was established in 1920. It has achieved a great improvement in health and prevention of disease.

The main aim of first aid is to preserve life, Protect the casualty from further harm, Provide pain relief, Prevent the injury or illness from becoming worse and Provide reassurance. It is important to understand that first aid has its limitations and does not take the place of professional medical treatment.

NEED FOR THE STUDY

Accident represents a major epidemic of non-communicable disease in the present century. Injuries constitute a variable epidemic. As per global statistical nearby 1.2 million people killed in RTA (Road Traffic Accidents) during the year 2012. In India every year RTA accounts for 1,00,000 deaths, 2 million hospitalization and 7.7 million minor injuries.

Adolescents make up about 20% of the world's population, of whom 85% live in developing countries. India has the second largest population in the world having one billion plus people as per censuses 2001, out of which adolescents (age 10-19years) contribute to 22.5% i.e., 225million.

Overcrowding, lack of awareness and poor implementation of essential safety precautions result in an increasing number of accidents. India recorded 21,996 deaths due to drowning in the year 2000 and 20960 deaths in the year 2003. India recorded 25,467 deaths due to burns during the year 2000.

The estimates from agriculture injury vary from 22-29 per 1000 workers globally. In India, the incidence rate of agricultural injury is estimated to be 116 per 1,00,000 workers; poisoning deaths 21,172, deaths due to falls 8800 and about 102951 road traffic accidents deaths were reported during the year 2003.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of Planned Teaching Programme on Knowledge and Skill regarding Selected First Aid Management among NSS students in selected Arts and Science Colleges at Puducherry.

OBJECTIVES OF THE STUDY

- To assess the level of pre- test knowledge regarding Selected First Aid Management among NSS students in selected arts and science colleges.
- To evaluate the effectiveness of Planned Teaching Programme regarding Selected First Aid Management among NSS students in selected arts and science colleges.
- To correlate the knowledge with skill of NSS students after Planned Teaching Programme.
- To associate pre- test knowledge score of NSS students with the selected demographic variables.

HYPOTHESES

H₁: there will be a significant difference between pretest and posttest level of knowledge regarding selected first aid management among NSS students.

H₂: there will be a significant association of pretest knowledge score with selected demographic variables among NSS students.

METHODOLOGY

A Quasi - experimental research design was chosen to evaluate the effectiveness of Planned Teaching Programme on Knowledge and Skill regarding Selected First Aid Management among NSS students in selected Arts and Science Colleges at Puducherry. . A total of 100 NSS students who fulfill the inclusion criteria were selected through Stratified random sampling techniques.

DESCRIPTION OF TOOL

SECTION- A:

Demographic data which gives base line information about NSS students such as age, gender, education, religion, number of years in NSS, exposure to selected first aid training and any previous source of information.

SECTION- B: Structured questionnaire was used to assess the knowledge regarding Selected First Aid Management among NSS students regarding basic life support, Bleeding control, Wound dressing, foreign body removal (Chocking).

SECTION- C:

Check list was used to assess the skill regarding Selected First Aid Management among NSS students.

DATA COLLECTION PROCEDURE

After getting formal written permission from the principals of selected colleges, the researcher explained the purpose and nature of the study to the NSS student and informed consent was obtained from them. The data were collected during September, 2014. Pre test was conducted among the NSS students by using structured questionnaire schedule to assess knowledge on first aid management. The NSS students were grouped four and they completed the pre test. After the pre test “Planned teaching program” was implemented for approximately 25-30 min. Followed by that “Demonstration” was done regarding Selected First Aid Management for a period of 45-60 min. Post test was conducted after seven days of the intervention by using the same questionnaire for knowledge and check list was used for evaluating the skill.

RESULTS

A total of 100 NSS students were included in the study. Regarding demographic characteristics majority of students (82%) were in the age group 16-18 years, and most of the students were girls (68%), there were many NSS students belongs to Hindu religion (88%) and most of the students getting health information from other than media and newspaper. The most of the NSS students have ever performed first aid (66%). Majority of NSS students were from urban area and most of the NSS students from commerce group(34%)

Table: 1- Mean, SD and Mean% of level of pre knowledge regarding first aid management among NSS students.

N=100

Area	Max score	Range	pre test		
			Mean	SD	Mean %
First aid	5	0-4	2.71	0.97	54
BCLS	12	1-8	4.13	1.31	34
Bleeding control	8	0-5	2.69	0.89	34
Wound dressing	5	0-5	2.24	1.03	45
Chocking	5	0-4	2.21	0.9	44
Overall	35	10-18	13.98	1.92	40

Table.1. illustrates the mean, SD and mean percentage of pre test knowledge score among NSS students, it shows that the highest mean percentage (54%) was obtained in the area of first aid in general, whereas lowest percentage 34% was obtained in the areas of BCLS and Bleeding control. It concludes overall mean percentage was 40 in pre test.

Table. 2. Mean, SD and Mean% of level of post test knowledge regarding FAM among NSS students after PTP.

N =100

Area	Max score	Range	Post test		
			Mean	SD	Mean %
First aid	5	2-5	4.29	0.7	86
BCLS	12	7-12	9.78	1.16	82
Bleeding control	8	4-8	6.36	0.9	80

Wound dressing	5	1-5	3.78	0.69	76
Choking	5	2-5	4	0.71	80
Overall	35	24-33	28.21	2.12	81

Table.2. illustrates the mean, SD and Mean percentage of post- test knowledge score among NSS students; it shows that the highest mean percentage (86%) was obtained in the area of first aid in general, whereas lowest percentage 76% was obtained in the areas of wound dressing. It concludes that overall mean percentage was 81% in post test.

Table.3. Comparison of Mean, SD and Mean percentage of pre-test and post-test knowledge regarding FAM among NSS students.

N =100

Knowledge Area	Max score	Pre test			Post test			Difference in mean %
		Mean	SD	Mean %	Mean	SD	Mean %	
First aid	5	2.71	0.97	54	4.29	0.7	86	32
BCLS	12	4.13	1.31	34	9.78	1.16	82	48
Bleeding control	8	2.69	0.89	34	6.36	0.9	80	46
Wound dressing	5	2.24	1.03	45	3.78	0.69	76	31
Choking	5	2.21	0.9	44	4	0.71	80	36
Overall	35	13.98	1.92	40	28.21	2.12	81	41

Table.3. illustrates that difference in mean percentage between pre test and post test. It reveals that more difference in mean percentage (48%) was in the area of BCLS and least difference in mean percentage (31%) in the area of wound dressing. It concludes that overall difference in mean percentage was 41%. Hence it concludes that planned teaching program were effective.

Table.4. Mean, SD and Mean% of post skill level regarding FAM among NSS students after PTP.

N =100

Skill area		Max. score	Range	Post test score		
				Mean	SD	Mean %
BCLS		12	6-12	9.59	1.17	80
Bleeding control	External	3	0-3	2.35	0.61	78
	Internal	3	1-3	2.57	0.52	86
Total			3-6	4.92	0.8	82
Wound dressing	Open	3	1-3	2.46	0.63	82
	Closed	3	0-3	2.45	0.61	82
Total			3-6	4.91	0.81	82
Choking		6	2-6	4.84	0.801	81
Overall		30	16-24	24.26	1.76	81

Table.4. shows that, in post test overall mean skill score of the NSS students was (24.26) and the overall mean percentage of skill post test score was (81%).

Fig.1. Frequency and percentage wise distribution (pre and post -test) to evaluate the effectiveness of PTP on level of knowledge regarding FAM among NSS students.

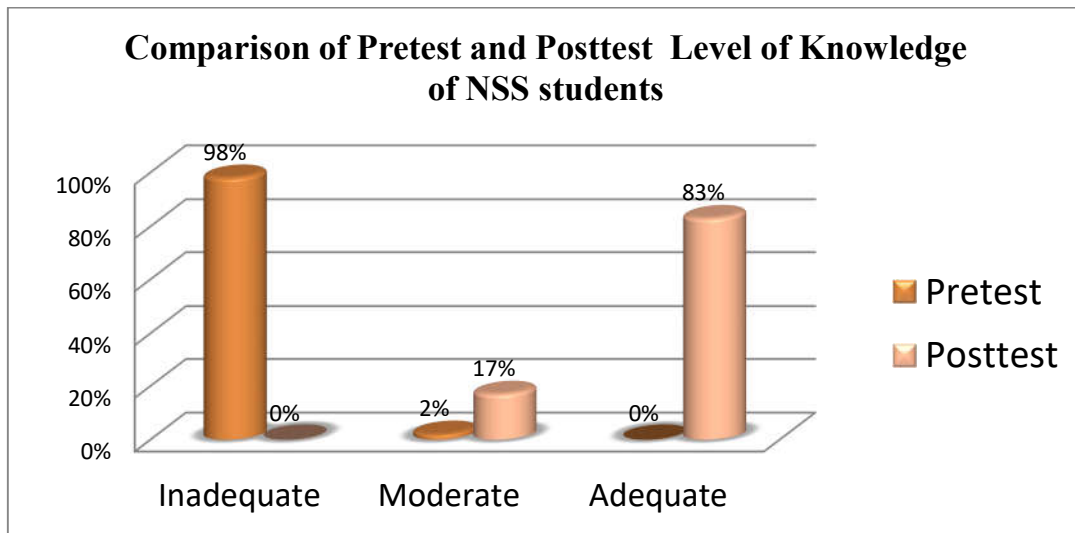


Fig.1. illustrates that, 98% of NSS students had inadequate knowledge and 2% of them have moderate knowledge in pre test. Post test knowledge score reveals that 83% of NSS students had adequate knowledge and 17% of them had moderate knowledge. Hence it's observed that the planned teaching program was effective.

Fig.2. Frequency and percentage wise distribution to evaluate the effectiveness of PTP on level of skill regarding FAM among NSS students.

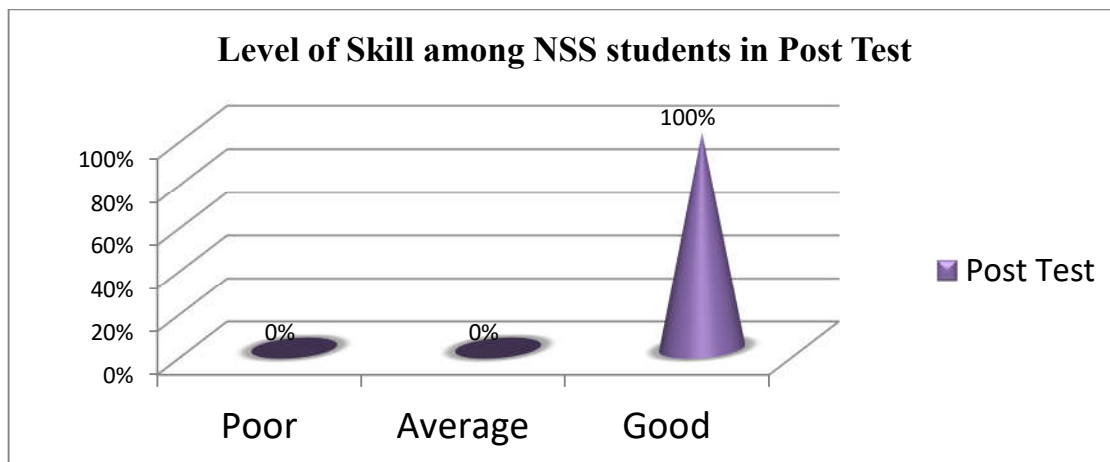


Fig.2. shows that, the NSS students had good (100%) skill on first aid management in post test. It concludes the planned teaching program was effective.

Table.5. Paired‘t’ test was found to evaluate the effectiveness of PTP on knowledge regarding selected FAM among NSS students.

N= 100

Area	pre test		post test		Mean difference	‘t’-value	p-value
	Mean	SD	Mean	SD			
First aid	2.71	0.97	4.29	0.7	1.58	13.26	p<0.001***
BCLS	4.13	1.31	9.78	1.16	5.65	35.79	p<0.001***
Bleeding control	2.69	0.89	6.36	0.9	3.67	28.33	p<0.001***
Wound dressing	2.24	1.03	3.78	0.69	1.54	12.39	p<0.001***
Chocking	2.21	0.9	4	0.71	1.79	13.96	P<0.001***
Overall	13.98	1.92	28.21	2.12	14.23	49.88	P<0.001***

*-P<0.05, significant; **-P<0.01 &***-P<0.001 , Highly significant

Table.5. shows that, in post test overall mean knowledge score of the NSS student was higher (28.21) than in pre test (13.98). The overall difference in the level of the knowledge (14.23) was confirmed by obtained paired ‘t’ test value (49.88) which was highly significant at (p<0.001 level).

Table.6. Correlation between the knowledge with skill among NSS students after PTP.

Variable	‘r’-value	P-value
Knowledge-Skill	0.919	P<0.001***

Fig.3. Correlation between the Knowledge and Skill among NSS students after PTP.

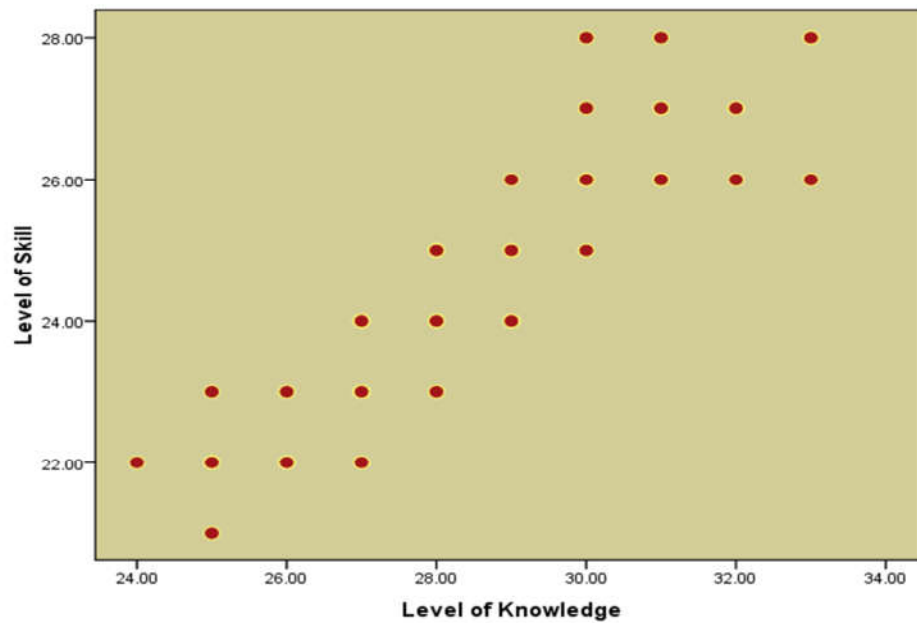


Fig.3. depicts that, in post test there will be a positive correlation between knowledge and skill, it was confirmed by obtained 'r' value (0.919) which was highly significant at ($p < 0.001$). it concludes that PTP with demonstration regarding first aid management was highly effective among NSS students

Table.7. Association between pre knowledge with selected demographic variables.

N=100

Demographic variables	Inadequate		Moderate		Adequate		χ^2	p-value
	F	%	F	%	F	%		
1.Age (in years):								
16-18	80	80	2	2	-	-	0.45 (df=1)	0.503 N.S
19-21	18	18	0	0	-	-		
>22	0	0	0	0	-	-		
2.Gender:								
Male	31	31	1	1	-	-	0.304 (df=1)	0.581 N.S
Female	67	67	1	1	-	-		
3.Source of information about first aid management:								
Media	26	26	1	1	-	-	1.27 (df=3)	0.737 N.S
News paper	8	8	0	0	-	-		
I don't know	29	29	0	0	-	-		
Others	35	35	1	1	-	-		
4. Religion :								
Hindu	86	86	2	2	-	-	0.27 (df=2)	0.87 N.S
Muslim	2	2	0	0	-	-		
Christian	10	10	0	0	-	-		
5.Residence :								
Rural	46	46	0	0	-	-	1.74 (df=1)	0.187 N.S
Urban	52	52	2	2	-	-		
6.Ever performed first aid:								
No	64	64	2	2	-	-	1.05 (df=1)	0.305 N.S
Yes	34	34	0	0	-	-		

7.What course of doing:								
Economics	12	12	0	0	-	-		
Commerce	34	34	0	0	-	-		
Political science	12	12	2	2	-	-	12.53	0.084
Biology	5	5	0	0	-	-	(df=5)	N.S
History	17	17	0	0	-	-		
Psychology	18	18	0	0	-	-		

***p<0.05, S – Significant, N.S – Not Significant

Table.7. reveals that there was no significant association between pre knowledge and demographic variables such as age, gender, source of first aid information, religion, residence and they had ever performed first aid and course they were doing.

DISCUSSION:

Objective: To evaluate the effectiveness of planned teaching programme regarding selected first aid management among NSS students in selected arts and science colleges.

The analysis of present study showed that the post test mean percentage of knowledge regarding first aid management of NSS students was higher than the pre test mean percentage score. Overall knowledge regarding first aid management of NSS students revealed that during pre test 98% of them have inadequate knowledge, 2% of them have moderate knowledge while in post test 83% have adequate knowledge and 17% of them have moderate knowledge with 100% level of skill.

The study findings consistent with **Mr. Chitrak shah(2010)** The study result showed an obvious rise in knowledge (82.1%) and skills (61.7%) after the intervention and hence it can be concluded that both self efficacy, emotions in situations requiring first aid skills and attitudes toward giving and learning first aid were important for intended behaviour.

Objective: Correlate the knowledge with skill of NSS students after planned teaching programme.

. The findings reveal that the positive results exist between knowledge and skill on selected first aid management among NSS students.

The Findings supported with Sarkar, *et al.*, (2011) conducted A cross sectional study. The mean number of correct answers by medical students with First Aid training was 11.2 (+/- 2.9) as opposed to 7.2 (+/- 3.43) by non-medical students (p < 0.001, 95% CI) with a mean difference of 18.14%. Students having received formal first aid training scored better than those who had not (p < 0.001). The study confirms that teaching program improve the level of knowledge and skill.

Objective: Associate pre knowledge score of NSS students with selected demographic variables.

The present study revealed that, pre test score and demographic variables for NSS students, the variables such as age, gender, source of information about FAM, Religion, Residence and course of the students, which shows that there is no significant relationship between knowledge score and demographic variables. Hence the research hypothesis H2 was rejected and the researcher accept the null hypothesis.

CONCLUSION

The findings of present study revealed that there was great significance between the pre test score and post test score. The study also shows that there was a positive correlation between Knowledge and Skill on first aid management among NSS students after PTP and there was no significant association between the levels of knowledge with the selected demographic variables. Hence it was concluded that the planned teaching program regarding first aid management was highly effective among NSS students.

RECOMMENDATIONS

Based on the study findings the following recommendations have been made for the further study.

- Same study with large sample size can be done for replication to standardize the first aid management.
- An experimental study can be carried out with control group.
- Other methods of teaching can be adopted to teach the NSS students regarding first aid management like video assisted teaching, booklet module, etc..
- A comparative study can be conducted for arts and science and professional colleges.
- A study can be conducted separately for male and female.
- A study can be conducted on each aspects of first aid management like burns, poisoning, disaster settings, etc.

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