Original Research Paper

Nursing

EFFECTIVENESS OF STRUC1TURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DISASTER MANAGEMENT AMONG TEACHERS OF SELECTED GOVERNMENT SCHOOLS AT PUDUCHERRY

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ABSTRACT Aim to evaluate the effectiveness of structured teaching programme on knowledge regarding disaster management among teachers of selected Government schools. The pre experimental research design was selected as research design. The sample comprised of 60 teachers who were selected by convenient sampling technique. The Structured Questionnaire was prepared and validated by experts. It comprises of demographic profile and 30 multiple choice questionnaire. Reliability of the tool was checked by using test retest technique. The reliability score was 0.9. It indicates positive correlation of the tool. After the pilot study the data collection procedure was done. The study was conducted for 4 weeks (29 days). The pre test was conducted by self structured questionnaire. The Structured Teaching Programme was conducted, for 45 minutes using audio visual aids. The data were collected by using Structured Questionnarie. On the 15th day, following the teaching the investigator conducted the post test by using same questionnaire. The data were analyzed by using descriptive statistics and inferential statistics. The significant findings were in pre test among 60 samples, majority of the samples 43 (71.7%) had inadequate knowledge and 17 (28.3%) had moderately adequate knowledge and none of the samples had adequate knowledge. In post test majority of the teachers 60 (100%) gained adequate knowledge on disaster management. The finding showed that overall mean score in pre test was 9.91 and in post test was 25.13 and overall mean difference was 15.21. Regarding the overall mean knowledge score the 't' value was 30.586, the 'p' value was 0.000 (p <0.001), which shows that highly significant. Hence the research hypothesis was accepted at 0.001 level of significance. The association of pre and post test level of knowledge with demographic variables showed that there was no significant association between the knowledge and the selected demographic variables. The findings of the study concluded that Structured Teaching Programme was very effective in improving the knowledge of the school teachers on disaster management.

KEYWORDS : Knowledge, Effectiveness, Disaster, School teachers

INTRODUCTION

Disaster is an occurrence arising with little or no warning, which causes serious disruption of life and perhaps death or injury to large number of people. It is may be a manmade disasters which are classified into two types as intentional disaster like technological wars, explosives, and unintentional disasters like poisons, chemicals, fire accidents, building collapse, vehicle accidents, radiations or natural disasters like earthquake, tsunami, flood, cyclones, drought, volcanic eruption, hurricane, sand storms, landslides, forest fire, epidemics that causes destruction and devastation which cannot be relieved without assistance.

Government estimated place direct economic losses at 1.3 billion. Other estimates indicate losses may be as high as 5 billion. There are also reports of enormous damage to infrastructure houses. The voluntary agent like lion's club, rotary club, NSS, NCC, national disaster committee, WHO, UNCIEF, UNO came forward to help the peoples who are affected in the earthquake. It was found that the help given by the help groups was not adequate and the funds were not sufficient to meet the needs of the people. It was also noticed that peoples are not aware of disaster management.

According to India's Hazard Profile 60 % of land mass prone to earth quakes, 40 million hectares that is8 % of landmass prone to floods, 8000 kms along coastline with 2 cyclone seasons, 68 % of the total area vulnerable to drought, 2.3 million houses damaged annually, and 8041 kms coastline exposed to tropical cyclones, 1 million houses damaged annually.

India is one of the highly flood prone countries in the world. Around 40 million hectares of land in India is prone to floods as per National Flood Commission report. While history repeats itself, we do not seem to be learning from the past experiences. One after the other, whether it was Guwahati, Mumbai, Srinagar or Chennai, each time is a repeat of the same misery, loss of life, destruction of property, millions in relief and business as usual after the crisis is over. Though it is not possible to control the flood disaster totally, by adopting suitable structural and non-structural measures the flood damages can be minimized. In December 2015, Cyclone Vardah at Chennai was in a dismal state. The city war warned by mid-October last year that it could see heavy rainfall that could cause flooding. it brought massive disaster.

As per school health communitee (2015) the recommendations was to provide first aid and educating the teaching personnel and students. Each elementary class room teacher should develop the knowledge and skills to care for each emergency as bleeding, cessation of breathing, shock, head injuries, fainting and loss of consciousness and during disaster.

Teachers are frequently expected to support children psychologically in the after math of mass casualty events, yet they generally have not been trained to do so. Although children are the most vulnerable group in any disaster, limited information exists regarding their unique needs in complex humanitarian emergencies.

Studies have proved that disaster carries high impact of death, injury, disease outbreak and devastating effect on humanity. The investigator would like to conduct a study in assessing the knowledge of teachers and making them aware of disaster preparedness in future, so that they become a part of disaster team and manage / handle the situation at the disaster site. National committee on disaster has emphasized that training for teachers will have to play a key role in responding to disaster in all priority issues such as early assessment of needs, establishing priority, emergency measures (such as triage) and life saving activities.

MATERIALS AND METHODS

In order to accomplish the main objective of evaluating the effectiveness of structured teaching programme on knowledge regarding disaster management among teachers of selected Government schools. Hence an experimental approach was adopted. A Pre - experimental research design with 'one group pre-test post-test only' design was adopted for the study. The study was conducted in two schools and 60 teachers were selected by Non- probability convenient sampling technique. After obtaining consent from the participant, pre test was administered. Then Structured teaching programme on disaster management was conducted on sequence days in both schools with the help of Liquid Crystal Display projector with projecting facility for 45minutes. And after 15 days post-test was conducted by using the same questionnaire in both the school for all selected school teachers. The difference between pre and post test knowledge regarding disaster management was measured by using descriptive statistics (Frequency, mean, standard deviation) and inferential statistics (chi square and 't' test).

DESCRIPTION OF RESEARCH TOOLS

The instrument used for the data consist of two parts.

PART – I

It consists of demographic characteristics such as age, sex, residence, education, teaching experience, classes handled by selected school teachers, source of health information, any personal experiences, specify the type of disaster, kind of problem faced during disaster.

PART – II

This part consists of 30 multiple choice questionnaires to assess the knowledge on disaster management were right answer scores 1 mark and wrong answer scores 0 mark. The items were classified under the following categories.

• General Aspects pertaining to disaster – 15 items
• Safety measures on disaster – 15 items

Scoring And Interpretation

The minimum score a sample would get on knowledge would be 0 and maximum of 30.

Score Interpretation	Percentage	Level of Knowledge
1 – 10	0 - 33%	Inadequate knowledge
11 – 20	34 – 66%	Moderately Adequate Knowledge
21 – 30	67 – 100%	Adequate knowledge

RESULTS

Table –I shows the level of the pre test knowledge of teachers regarding disaster management. In pre test majority of the teachers 43 (71.7%) had inadequate knowledge.

Table – II shows the level of the post test knowledge of teachers regarding disaster management. In post test, majority of the teachers 60(100%) had adequate knowledge.

Table- III represents the comparison between the mean score, standard deviation of pre and post test knowledge of teachers regarding various aspects of disaster management. In this study, the mean in all aspects of post test was apparently higher than the mean in the pre test. The mean of pre test knowledge was more 6.7 with general aspects of disaster and less in 3.2 safety measures for disaster. The mean percentage of post test knowledge was more 13.2 in safety measures for disaster and 11.88 in general aspects of disaster. The overall findings concluded that the mean distribution of the different aspects of disaster management was significantly higher in post test than the pretest. Hence the research hypothesis was accepted at 0.001 level of significance.

Table – IV represents the mean, mean differences, standard deviation of differences between the total pre and post test knowledge of teachers on disaster management. The total mean score in the pretest knowledge was 9.91 and the total mean score in post test knowledge was 25.13. The mean difference was 15.21 between total pre and post test knowledge shows a true difference. Since the calculated 't' value (30.586) was greater than the table value the research hypothesis was accepted at 0.001 level of significance. The finding concluded that the structured teaching programme was effective in increasing the overall knowledge of teachers regarding disaster management.

Table – V and VI deals with the findings of association of selected demographics variables with the pre test and post test of knowledge. The data presented in the table shows that the calculated chi square value was less than the table value. Hence there was no significant association between selected demographic variables such age, sex, education, residence, personal experience, previous exposure, classes handled by selected school teachers, source of health information, any personal experiences, specify the type of disaster, kind of problem faced during disaster obtained from pretest and post test knowledge of the teachers. The finding concluded that there was no association between the pre test and post test knowledge with the selected demographic variables.

Table I. Frequency And Percentage Distribution Of The Samples In Level Of Knowledge On Disaster Management

N=60

S. NO	LEVEL OF KNOWLEDGE	Frequency (n)	Percentage (%)
1.	Inadequate knowledge (0 – 33 %)	43	71.7
2.	Moderately adequate knowledge (34 – 66 %)	17	28.3
3.	Adequate knowledge (67 – 100 %)	-	-

Table II. Frequency and percentage distribution of the samples in level of knowledge on disaster management In post test   N=60

| S. NO	LEVEL OF KNOWLEDGE	Frequency (n)	Percentage (%)
1.	Inadequate knowledge (0 – 33 %)	-	-
2.	Moderately adequate knowledge (34 – 66 %)	-	-
3.	Adequate knowledge (67 – 100 %)	60	100

Table III. Comparison of mean, standard deviation of pre test and post test knowledge of teachers regarding disaster management

N = 60

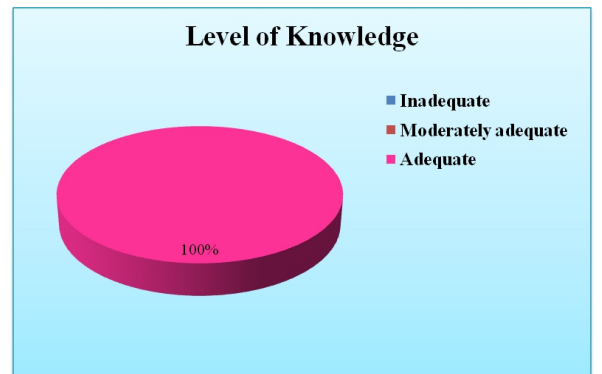| S. No	Knowledge on disaster management	Maximum score	Pretest		Post Test		't' Value	'p' Value
			Mean	SD	Mean	SD		
1.	General aspects of disaster	15	6.7	2.044	11.88	1.584	14.890	0.000 (S)
2.	Safety measures for disaster	15	3.2	2.314	13.2	1.683	25.364	0.000 (S)

Table IV. Mean, mean difference, standard deviation of difference between total pre and post test knowledge of teachers on disaster management

N = 60

Aspects	Total mean score		Total Mean Difference	Standard Deviation Difference	't' Value	'p' Value
	Pre Test	Post Test				
Knowledge	9.91	25.13	15.21	3.853	30.586 (df= 59)	0.000
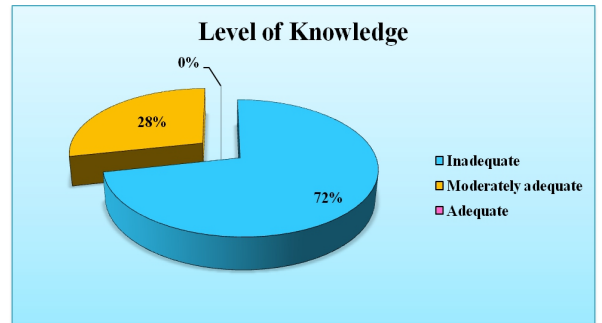
Fig1. Pre test level of Knowledge
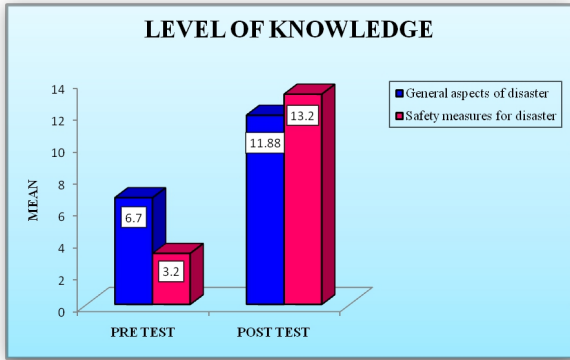

Fig2. Post test level of Knowledge

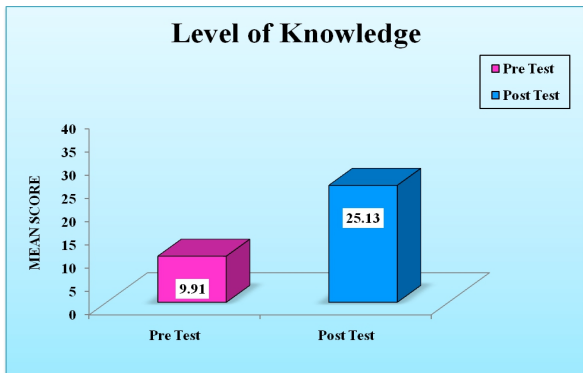**Fig 3. Pre And Post Test Mean Knowledge Score On Disaster Management Among School Teachers**

Fig4. Comparison Of Total Mean Score Of Pre And Post Test Knowledge On Disaster Management

DISCUSSION

Table III – represents the comparison between the mean score percentage, mean and standard deviation of pre and post test knowledge of teachers regarding various aspects of disaster management. The finding showed comparison of the mean percentage distribution on each aspects of knowledge on disaster management was done by using paired 't' test to assess the significance of the difference between the mean in pretest and post test among the teachers. Since the calculated 't'value is less than the table value and the 'p' value 0.000 (p <0.001), which shows that highly significant difference exists in the level of knowledge between pre and post test. The overall findings concluded that the mean distribution of the knowledge regarding disaster management was significantly higher in post test than the pretest. Hence the research hypothesis was accepted at 0.001 level of significance.

Table IV- The total mean score in the pretest knowledge was 9.91 and the total mean score in post test knowledge was 25.13. The mean difference was 15.21 between total pre and post test knowledge shows a true difference. Since the calculated 't' value (30.586) was greater than the table value the research hypothesis was accepted at 0.001 level of significance. The finding concluded that the structured teaching programme was effective in increasing the overall knowledge of teachers regarding disaster management. Figure 6: Highlights the comparison of total mean score of pre and post test knowledge of disaster management.

CONCLUSION

Disaster is a catastrophic occurrence that has profound implications on public health. It is a destructive event that results in the need for a wide range of emergency resources to assist and ensure the survival of the disaster/ disaster stricken.

In pre test majority of the teacher's overall knowledge regarding disaster management was inadequate. But in post test majority of the teachers overall knowledge regarding disaster management was adequate. Therefore, the structured teaching programme was effective which helped the samples to gain knowledge regarding disaster management.

Hence the present study concluded that Structure Teaching Programme was effective in increasing the knowledge of teachers.

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