



“A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON THE KNOWLEDGE REGARDING DISASTER MANAGEMENT AMONG 1st YEAR B.Sc NURSING STUDENTS OF JG COLLEGE OF NURSING AHMEDABAD.”

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ABSTRACT

Background

Disaster is a sudden, calamitous event bringing great damage, loss, and destruction and devastation to life and property. The damage caused by disasters is immeasurable and varies with the geographical location, climate and the type of the earth surface or degree of vulnerability. This influences the mental, socio-economical, political, and cultural state of affected area. Disasters have been integral parts of the human experiences since the beginning of time, causing premature death, impaired quality of life, and altered health status. The risk of a disaster is ubiquitous. On an average, one disaster per week that requires international assistance occurs somewhere in the world.

Objectives of the study were

- To assess the existing level of knowledge of students on disaster management.
- To evaluate the effectiveness of structured teaching programme on the knowledge of students.
- To identify the association between the students level of knowledge and selected demographic variables.

Method

Pre experimental approach was used with one group pre-test and post test design. The study was conducted in the JG College of Nursing of Ahmedabad City, Gujarat state. The investigator used Simple Random sampling technique for selecting 60 samples. In view of the nature of the problem and the accomplishment of the objectives of the study, a Structured Teaching Programme on Disaster Management was prepared for the sample. A structured Knowledge questionnaire (30) and structured Summative likert's Attitude scale were prepared to assess the Knowledge of the samples. Factors associated with these outcomes were identified by using descriptive, inferential statistics, standard deviation.

Results

The knowledge on introduction of disaster among students in pre test, the mean score was 2.45 and standard deviation was 1.016 and in the post test, the mean score was 4.45 and standard deviation was 0.11 with the effectiveness of 0.018 and paired "t" value of 7.0165, and which shows statically highly significant ($P < 0.05$). The knowledge regarding phases of disasters among students in pre test, the mean was 3.16, standard deviation was 1.423 and in the post test, the mean score was 5.45 and standard deviation was 1.50 with the effectiveness of 0.050 and paired "t" value of 1.36268, and which shows statically significant ($P < 0.05$). The knowledge on disaster management among students in pre test, the mean score was 2.83, standard deviation was 1.22 and in the post test, the mean score was 4.6 and standard deviation was 1.28 with the effectiveness of 0.0412 and paired "t" value of 1.70861, and which shows statically highly significant ($P < 0.05$). The knowledge disaster triage among students in pre test, the mean score was 2.43, standard deviation was 1.34 and in the post test, the mean score was 3.78 and standard deviation was 1.44 with the effectiveness of 0.067 and paired "t" value of 1.5356, and which shows statistically highly significant ($P < 0.05$).

Conclusion

The main concept of this study was to make the students aware of the disaster management because they are the disaster team members. The present study assessed the knowledge of the students regarding disaster management before and after the structured teaching programme. Keeping this importance in mind, the researcher prepared a structured teaching programme further evaluated by structured questionnaire on disaster management and distributed that to the students to improve and enhance their knowledge on disaster management. The study result revealed that the students have lack in knowledge about the disaster management. It was found that the structured teaching programme is effective in improving the knowledge of the students. This study plays an important role in prevention of impact and management of impact in various disasters. This study has not only improved the knowledge of the students, it could be considered as a part of continuing professional development of students in all aspects.

Introduction

The term disaster is defined as a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources by the United Nations. The damage caused by disaster depends on climate, the geographical location, and the type of the earth surface of vulnerability and disaster adversely affect the mental, socioeconomic, political and cultural state of the affected area in general. Natural disaster can be classified by nature, timing, predictability, response time and type of impact. According to time disaster is classified into two, slow (e.g. Drought, famine, food shortage) and quick. The quick disaster again divided into predictable (e.g. cyclone, flood and typhoon) and unpredictable or sudden (e.g. earthquake). According to response the time disaster is divided into three categories such as long response time (drought, famine), short response time (cyclone, floods) and no response time (earthquake, landslide). According to impact, disaster is classified into four i.e. affect all aspects of life (cyclone, flood, landslide), loss of life and damage to physical infrastructure (earthquake) and affect live hood and cause environmental degradation (drought, forest, fire) and threaten only lives (famine). During 2016, the UN convened for the first time in its 70-year history a world summit on humanitarian assistance, stating that —today, the scale of human suffering is greater than at any time since

the Second World War (United Nations 2016). It is estimated that up to 130 million people across the globe currently rely on humanitarian assistance to survive (United Nations 2016). The study has concluded that natural hazards (73%) are more predominant in research than man-made hazards (14%). Of the man-made hazards covered, terrorism is the most prevalent (83%). The most frequent disaster types are climate related, and in this study hydrological (20%), geophysical (20%), meteorological (15%) and climatological (5%) were the most frequently researched. Asia experiences the highest number of disaster events as a continent but in this study was only included in 11% of papers, with North America being the most recurrent (59%). The main concept of this study was to make the students aware of the disaster management because they are the disaster team members.

Objectives of the study were

- To assess the existing level of knowledge of students on disaster management.
- To evaluate the effectiveness of structured teaching programme on the knowledge of students.
- To identify the association between the students level of knowledge and selected demographic variables.

Method

A Quasi-experimental Approach Was used in the study to assess the effectiveness of Planned Teaching Programme on Disaster Management in terms of knowledge and practice among First year B.sc Nursing Student in JG College of Nursing. It is an important step in research process. Investigator had chosen the experimental approach. Specifically, the Quasi-experimental approach method has been used for the research work. Pre experimental approach was used with one group pre-test and post test design. The study was conducted in the JG College of Nursing of Ahmedabad City, Gujarat state. The investigator used Purposive sampling technique for selecting 60 samples. In view of the nature of the problem and the accomplishment of the objectives of the study, a Structured Teaching Programme on Disaster Management was prepared for the sample. A

structured Knowledge questionnaire (30) and structured Summative likert's Attitude scale were prepared to assess the Knowledge of the samples. Factors associated with these outcomes were identified by using descriptive, inferential statistics, standard deviation.

The self administered questionnaire on disaster management consisted of 5 sections.

Section 1: Demographic data: It includes information regarding age, gender, economic background, residence area, source of knowledge, faced any type of disaster, attended any type of training programme.

Section 2: Question on phases of disaster. It consisted 7 multiple choice questions.

Section 3: Questions on disaster management. It consisted of 6 multiple choice questions.

Section 4: Questions disaster triage. It consisted of 7 multiple choice questions.

The investigator will plan to analyze the data in the following manner.

The collected data was organized, tabulated and analyzed by using descriptive and inferential statistics.

Section1: Demographic Variables will be analyze by using frequency and percentage and will be presented in the form of table.

Section2: The data from the structured knowledge Questionnaire before and after administration of Plan Teaching Programme will be analyze by mean, median and mean percentage.

Section3: Pre- test and post-test scores analyzed by standard deviation.

RESULT

The knowledge on introduction of disaster among students in pre test, the mean score was 2.45 and standard deviation was 1.016 and in the post test, the mean score was 4.45 and standard deviation was 0.11 with the effectiveness of 0.018 and paired "t" value of 7.0165, and which shows statically highly significant ($P < 0.05$). The knowledge regarding phases of disasters among students in pre test, the mean was 3.16, standard deviation was 1.423 and in the post test, the mean score was 5.45 and standard deviation was 1.50 with the effectiveness of 0.050 and paired "t" value of 1.36268, and which shows statically significant ($P < 0.05$). The knowledge on disaster management among students in pre test, the mean score was 2.83, standard deviation was 1.22 and in the post test, the mean score was 4.6 and standard

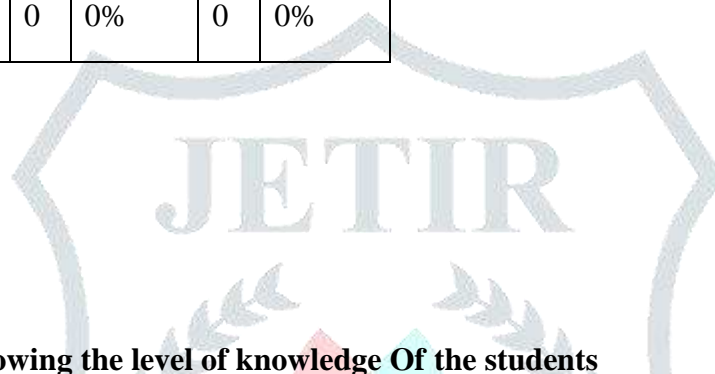
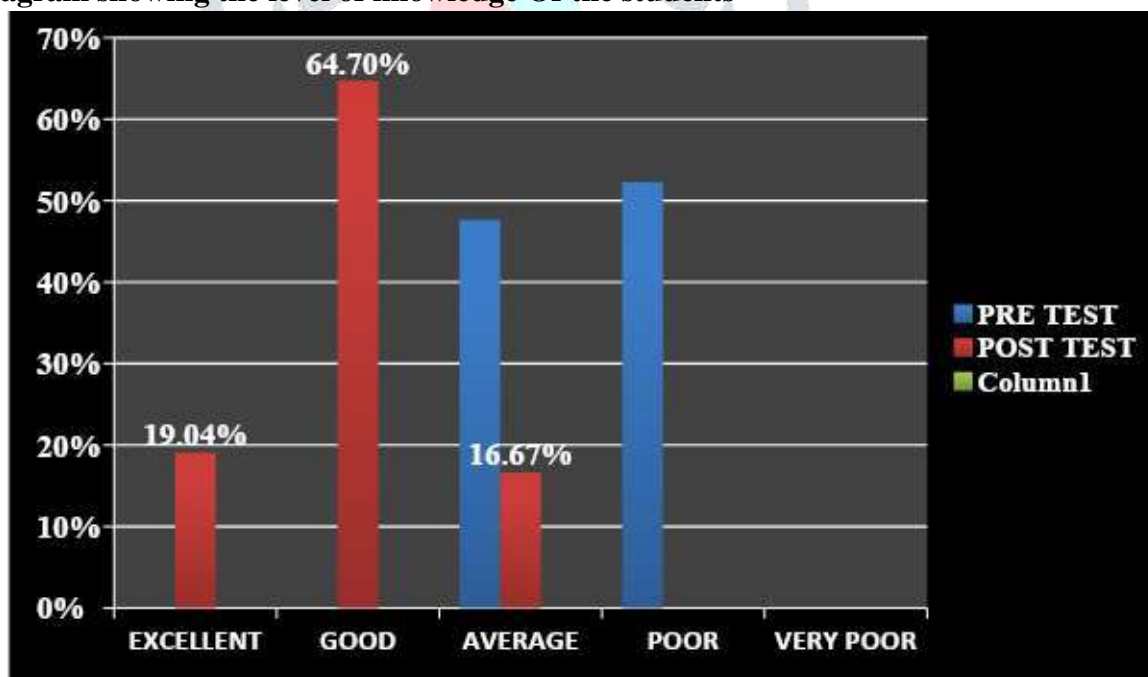
deviation was 1.28 with the effectiveness of 0.0412 and paired "t" value of 1.70861, and which shows statically highly significant ($P < 0.05$). The knowledge disaster triage among students in pre test, the mean score was 2.43, standard deviation was 1.34 and in the post test, the mean score was 3.78 and standard deviation was 1.44 with the effectiveness of 0.067 and paired "t" value of 1.5356, and which shows statistically highly significant ($P < 0.05$).

TABLE 1 : DEMOGRAPHIC VARIABLES

DEMOGRAPHIC VARIABLES		NO. OF SAMPLES	PERCENTAGE (%)
Age	18	21	50%
	19	20	47.6%
	20	1	2.38%
Gender	Male	10	23.8%
	Female	32	76.2%
Economic Background	Upper Class	0	0%
	Middle Class	39	92.85%
	Lower Class	3	7.14%
Residence	Urban	31	73.8%
	Rural	11	26.2%
Source of Information	Television	6	14.28%
	Internet	34	80.9%
	Magazine	2	4.76%
	Hospital	0	0%
Face any Disaster	Yes	0	0%
	No	42	100%
Training in Disaster Management	Yes	0	0%
	No	42	100%

TABLE 2: FREQUENCY DISTRIBUTION LEVEL OF KNOWLEDGE AMONG STUDENTS IN PRE AND POST TEST

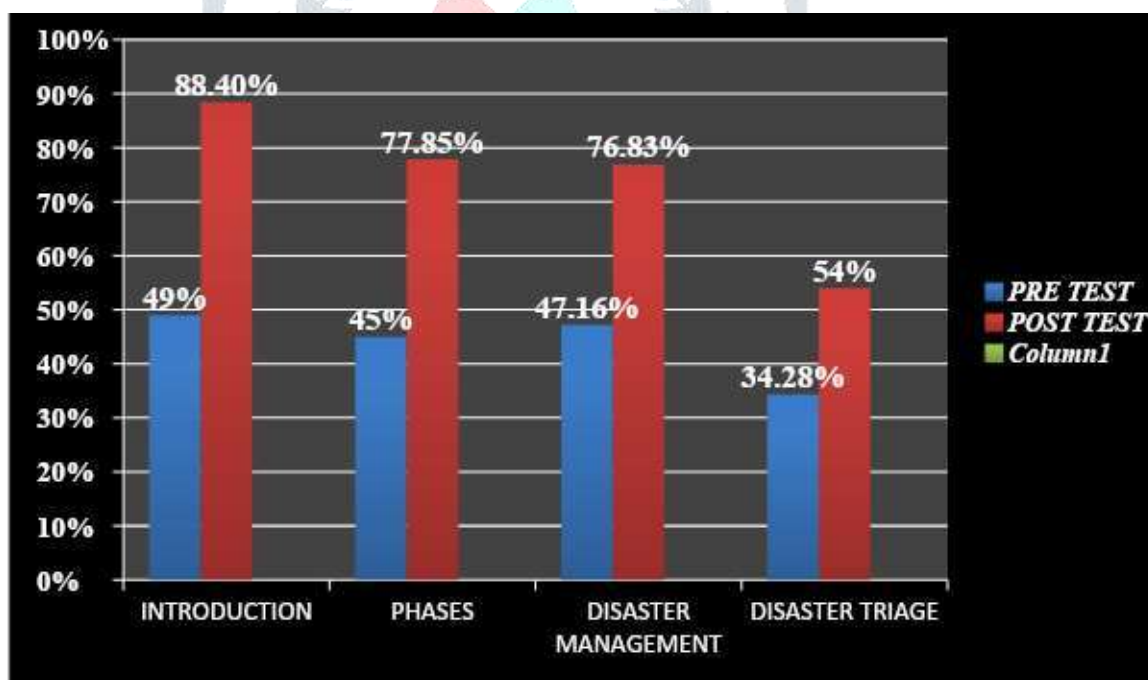
LEVEL OF KNOWLEDGE	PRE TEST		POST TEST	
	F	%	F	%
EXCELLENT	0	0%	8	19.04%
GOOD	0	0%	27	64.28%
AVERAGE	20	47.62%	7	16.7%
POOR	22	52.38%	0	0%
VERY POOR	0	0%	0	0%

**Fig. 1: Pyramid diagram showing the level of knowledge Of the students**

The findings of the Pre-test and Post-test knowledge is to know the effectiveness of structured teaching programme on disaster management among students. It is inferred that, in the pre-test, 52.3% have demonstrated poor knowledge and 47.6% students have adequate knowledge regarding disaster management. In the post test, 16.67% have average knowledge, 64.70% were good and 19.04% were excellent regarding their knowledge in disaster management.

TABLE 3: COMPARISON OF THE PRE - TEST AND POST - TEST KNOWLEDGE REGARDING DISASTER MANAGEMENT AMONG STUDENTS (ASPECT WISE) :

ASPECT	OBSERVATION	MEAN	MEAN%	EFFECT	SD	't' VALUE
Introduction	PRE TEST	2.45	49%	1.97	0.018	7.06175
	POST TEST	4.42	88.40%			
Phases	PRE TEST	3.16	45%	2.29	0.050	1.36268
	POST TEST	5.45	77.85%			
Disaster Management	PRE TEST	2.83	47.16%	1.33	0.041	1.70861
	POST TEST	4.16	76.83%			
Disaster Triage	PRE TEST	2.43	34.28%	1.35	0.067	1.5356
	POST TEST	3.78	54%			

Fig. 2 : Conical diagram showing the aspect wise comparison of pre-testand post-test level of knowledge regarding disaster management amongthe students.

The knowledge on introduction of disaster among students in pre test, the mean score was 2.45 and standard deviation was 1.016 and in the post test, the mean score was 4.45 and standard deviation was 0.11 with the effectiveness of 0.018 and paired "t" value of 7.0165, and which shows statically highly significant ($P < 0.05$).

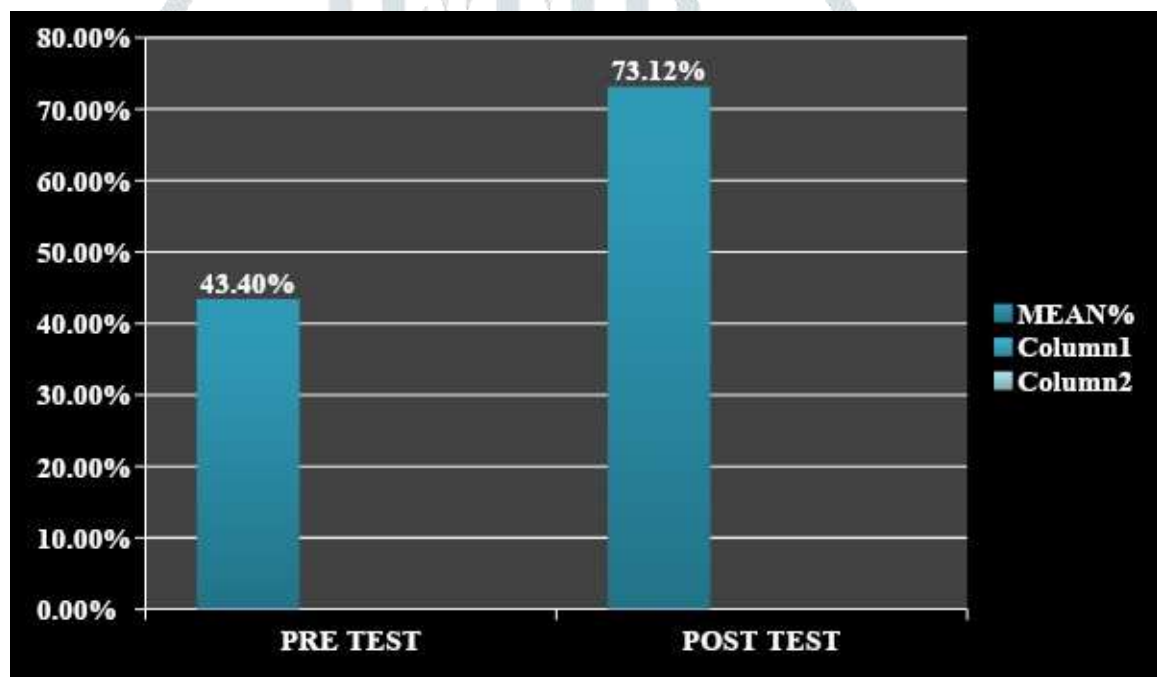
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TABLE 4: COMPARISON OF MEAN SCORE BETWEEN PRE - TEST AND POST - TEST OF KNOWLEDGE REGARDING DISASTER MANAGEMENT (overall)

ASPECT	OBSERVATION	MEAN	MEAN%	EFFECT	SD	't' VALUE
	PRE- TEST	10.85	43.40%	7.43	0.280	7.00161
Overall knowledge scores	POST - TEST	18.28	73.12%			

Fig.: 3 Bar diagram showing the comparison of overall mean score between pre-test and post-test level of knowledge regarding disaster management among the students.



Conclusion

Disaster is a serious disruption of the functioning of society, causing widespread human, material, environment losses, which exceed the ability of the affected society to cope using its own resources.

In developed countries after a major disaster, the need for search, rescue and aid is likely to be very effective. In developing countries like India, due to lack of resources, knowledge, ignorance and inadequate technological advance may lead to an ineffective disaster management.

The main concept of this study was to make the students aware of the disaster management because they are the disaster team members. The present study assessed the knowledge of the students regarding disaster management before and after the structured teaching programme. Keeping this importance in mind, the researcher prepared a structured teaching programme further evaluated by structured questionnaire on disaster management and distributed that to the students to improve and enhance their knowledge on disaster management. The study result revealed that the students have lack in knowledge about the disaster management. It was found that the structured teaching programme is effective in improving the knowledge of the students. This study plays an important role in prevention of impact and management of impact in various disasters. This study has not only improved the knowledge of the students, it could be considered as a part of continuing professional development of students in all aspects.

Conflict of interest: The authors declare that they have no competing interests.

Ethics declarations

Ethics approval and consent to participate

JG College of Nursing, Institute Ethics Committee reviewed this study and granted ethical approval. Electronic consents has been obtained from participants.

Consent for publication

Written consent for publication was obtained from each participant.

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