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Evaluating the Process and Outcomes of Disaster Preparedness Knowledge Acquisition Through Self - Instructional Modules Among Nursing Students in Tamil Nadu

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Abstract: ***The Study was conducted to evaluate the effectiveness of self-instructional module on knowledge regarding disaster preparedness among B. SC Nursing students. The sample consisted of 60 B.SC Nursing students. B. SC Nursing students were selected by purposive sampling technique. It was one group Pre-Test and Post-tests design. At the end of the study there was no significant association between the level of knowledge with selected demographic variables such as sex and seen any disaster affected place in which the calculated value is less than the table value and significant at the level of 0.05 and shown significant association between the level of knowledge with selected demographic variables such as age, religion, years of course, previous knowledge about disaster, you undergone any in-service training in disaster preparedness, have you got any individual experience in disaster management relative living in disaster zone and how will you prepare yourself during disaster in which calculated value is greater than the table value and significant at the level of 0.05. it found to be significant increase in the knowledge level among B. SC Nursing students and self-instructional module is found to be effective.***

Keywords: self-instructional module, disaster preparedness, in- service trainings

1. Introduction

"Trusting our Intuition always save us from Disaster"
-Annie Wilson Schaef

Emergency preparedness is a programme of long term development activities Whose goals are to strengthen the overall capacity and capability of country to manage efficiently all types of emergency. It should bring about an orderly transition from relief through recovery, and back to sustained development.

The objectives of disaster preparedness is to ensure that appropriate systems procedures and resources are in place to provide prompt effective assistance to disaster victims, thus facilitating relief measures and rehabilitation of services.

The possibility and reality of mass casualties associated with disaster, terrorism and biologic warfare are not new to human history, nor is the concept of using weapons of mass destruction (WMD) However, geopolitical forces and interests and the availability of destructive technology have brought the possibility of more terrorist events to our doorstep. Terrorism involves the systematic use of violence to create feelings or fear.

2. Need for the Study

With a wide range of topographic and climate condition, India is the highly disaster-prone country in Asia-Pacific region with an average of 8 major natural calamities a year. While Floods, Cyclones, draughts, earthquakes and epidemics are frequent from time to time, major accidents happen in railways, mines and factories causing extensive damage to human life and property.

Disaster, natural or man-made always negatively affects the human beings, the social and service structure of the society or community and the environment.

Disaster invariably have an immediate as well as long lasting impact on those connected and their families, permeating all the spheres of human activity, ranging from the physical, socio-economic and ecological state to the mental, political and culture state of the affected population.

Northern Mountain regions, including the foot hills are prone to snow-storms, land-slides and earthquakes. The Eastern coastal areas are prone to severe Floods and cyclones (Andhra Pradesh, West Bengal, Orissa, etc.). Bihar, Assessment and Uttar Pradesh get major Floods almost every year. Western desert areas are prone to draughts. There is hardly a year when some or the other part of the country does not face the spectre of drought, floods or cyclone. Orissa had super cyclone on 29th October 1999, when thousands lost their lives and many more became homeless.

Statement of the Problem

''A study to assess the effectiveness of self instructional module on knowledge regarding disaster preparedness among B. Sc. Nursing students studying in Pauls College of Nursing, Villupuram district''

Objectives of the Study

- To assess the level of knowledge on disaster preparedness among B. Sc. Nursing students studying in

Pauls College of Nursing.

- To determine the effectiveness of self-instructional module on disaster preparedness among students studying B.Sc. Nursing in Pauls College of Nursing with the post-test level of knowledge score.
- To find the association between the Pre - test knowledge score with the selected demographic variables.

Hypothesis

H1: There is significant improvement in level of knowledge among B. Sc. Nursing student in Pauls College of Nursing on disaster preparedness through with the self-instructional module.

H2: There is no significant improvement in the level of knowledge.

Assumption

The I year and II-year B. SC Nursing students will improve their knowledge and develop their skills regarding disaster preparedness.

Limitations

- This study is only applicable for B. SC. Nursing students.
- This study focus only on the knowledge.
- This study only limited in Pauls College of Nursing
- The sample size limited to only 60

3. Review of Literature

Review of literature refers to an extensive, exhaustive, and systematic examination of publications relevant to the research project. This chapter deals with the reviews related to Disaster preparedness.

4. Research Methodology

Research Approach: Quantitative research approach is used for this study.

Research Design: One group pre - test, post-test research design.

Independent Variable: Knowledge, attitude, skill regarding disaster preparedness

Dependent Variable: B.SC. Nursing students

Setting of the Study: Pauls College of Nursing, Villupuram District.

Target Population: I and II year B.SC. Nursing students

Sample size: Sample size is 60

Sampling Technique: Purposive sampling technique

Criteria for Sample Selection

Inclusion Criteria:

Students who are willing to participate in the study. Students who knows Tamil & English.

Exclusion Criteria:

Students who are not willing participate in the study. Students who are absent on the day of data collection.

Students who are already had the knowledge on Disaster preparedness.

Development and Description of the Tool

SECTION A: Demographic variables. It consists of selected demographic variables are age, sex, religion, years of course.

SECTION B: Self structured questionnaire regarding the disaster preparedness

SECTION C: Self Instructional module explained the disaster cycle and disaster management.

5. Interpretation and Scoring

Multiple choice questions was administered by investigators. It consists of 30 questions regarding knowledge of disaster preparedness with 4 options, each correct answer having mark.

Level of Knowledge	Score
Inadequate Knowledge	0 – 10
Moderate Knowledge	11 – 20
Adequate Knowledge	21 – 30

6. Data Analysis and Interpretation

Findings:

The data was organized, analyzed, and presented under the following headings.

Section I:

Frequency and percentage distribution of selected demographic variables

Section II:

a) Frequency and percentage distribution of pre - test and post - test level of knowledge score on disaster preparedness among B.SC nursing students
b) Comparison of pre - test and post - test level of knowledge score regarding disaster preparedness among B.SC. Nursing students

Section III:

Association between pre - test level of knowledge score with the selected demographic variables.

Table 4.1: Frequency and Percentage Distribution of Pre-Test and Post - Test Level of Knowledge Score, N=60

Level of Knowledge	Pre - Test	Percentage (%)	Post Test	Percentage %
Inadequate Knowledge	36	60%	16	27%
Moderate Knowledge	24	40%	41	68%
Adequate Knowledge	0	0%	3	5%

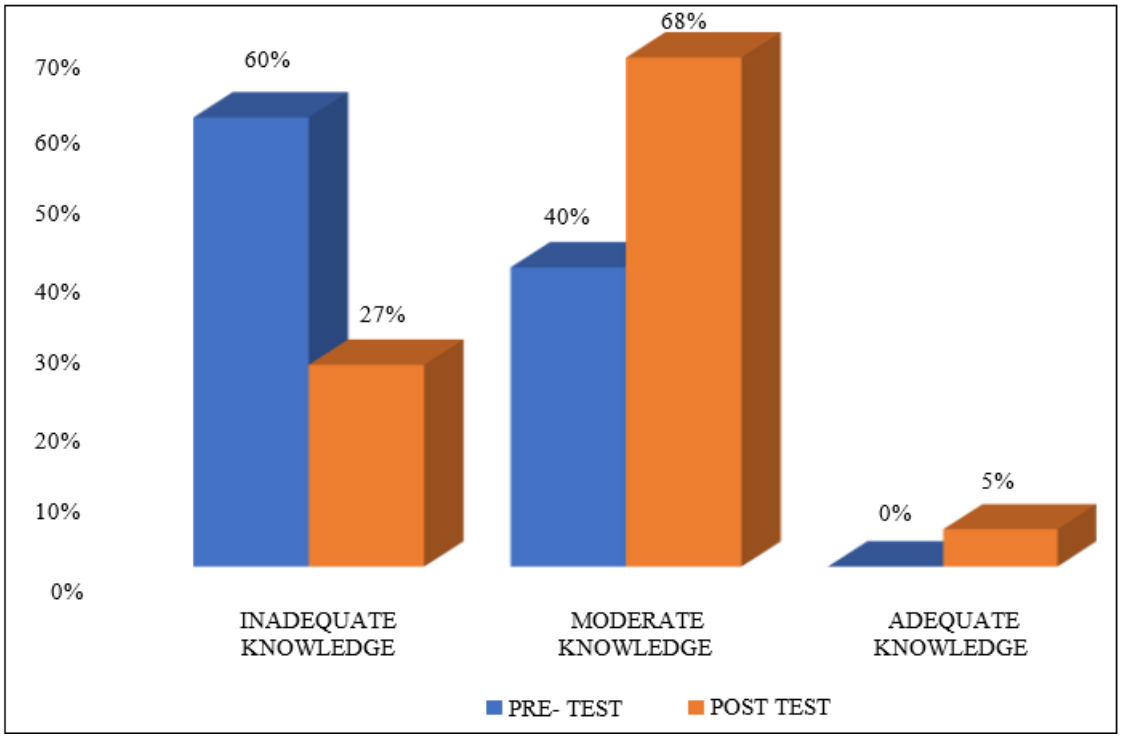

Figure 4.1: Frequency and Percentage Distribution of Pre - Test and Post - Test Level Of Knowledge Score

Table 4.2: Comparison of Pre-Test and Post- Test Level of Knowledge Score Regarding Disaster Preparedness Among B. Sc Nursing Students, N=60

Test	Total Number of Sample	Mean	Standard Deviation	T Value	P Value (0.01)
Pre Test	60	16.33	6.454	3.944	1.68
Post Test	60	28.5	10.408		

Section III: Association of Pre - test knowledge score with the selected demographic variables

S. No	Demographic Variable	Level of Knowledge			X^2	T Value & DF
		Inadequate	Moderate	Adequate	P< 0.05	
1	**Age**:					
	a) 17-18 Years	6	7	0	15.739	12.59 Df = 6 S
	b) 18-19 Years	6	20	1		
	c) 19-20 Years	4	12	2		
	d) 29-21 Years	0	2	0		
2	**Sex:**					
	a) Male	15	6	0	2.92	5.99 Df = 2 NS
	b) Female	10	26	3		
3	**Religion:**					
	a) Hindu	11	33	3	12.349	9.49 Df = 4S
	b) Muslim	1	3	0		
	c) Christian	4	5	0		
4	**Year of Course:**					
	a) 1st Year	8	12	0	10.72	9.49 Df = 4S
	b) 2nd Year	2	17	1		
	c) 3rd Year	6	12	2		
5	**Any Previous Knowledge about Disaster Preparedness**					
	a) YES	9	32	2	8.083	5.99 Df = 2 S
	b) NO	7	10	0		
6	**Whether You Undergone any in- Service Training in Disaster Preparedness:**					
	a) YES	2	6	1	9.859	5.99 Df = 2 S
	b) NO	14	35	2		
7	**You Have Seen Any Disaster Affected Place:**					
	a) YES	4	2	2	3.65	5.99 Df = 2 NS
	b) NO	12	8	1		
8	**Have You Got Any Individual Experience in Providing Disaster Management:**					
	a) YES	5	11	1	7.119	5.99 Df = 2 S
	b) NO	11	30	2		

9	**Is There Any of your Relative Living in Disaster Zone:**					
	a) YES	7	14	2	8.59	5.99 Df = 2 S
	b) NO	9	26	2		
10	**How Will You Prepare Yourself During Disaster:**					
	A) Avoiding Going Outside	0	4	0	14.16	12.59 Df = 6 S
	B) Stay in the Safest Zone	4	5	0		
	C) Packing Needed Things After Immediately Disaster Alert	0	1	0		
	D) All of the Above	12	31	3		

7. Discussion

Objectives

Assess the level of knowledge on disaster preparedness among B. Sc. Nursing students studying in Pauls College of Nursing.

The frequency and percentage distribution of demographic variables related to age in year of 18-19 years 27(45%), were females 39(65%), were religion Hindu 47(78%),were years of course third year 20(33.33%),had previous knowledge about disaster preparedness were 43(73%),had no any in serviced training in disaster preparedness 51(85%),had seen any disaster affected place 41(68%),had you got any individual experience in providing disaster management 43(72%),had any of your relative living in disaster zone 37(62%),had how will you prepare yourself during disaster 46(77%).

Determine the effectiveness of self-instructional module on disaster preparedness among B. SC nursing students studying in Pauls College of nursing with the post – test level of knowledge score

The comparison of pre - test and post - test level of knowledge score among 60 sample of B.SC. Nursing students, the mean value is 16.33 and standard deviation is 6.454 the table value is 3.944 the calculated P value is 1.68. The post test mean value is 28.5 and the standard deviation is 10.408 the T value is 3.944 the calculated P value is 1.68 which is significant at the level of 0.01 shows that the self-instructional module was effective.

To find the association between the pre - test knowledge score with the selected demographic variables

It shows that is no significant association between the level of knowledge with selected demographic variables such as sex and seen any disaster affected place in which the calculated value is lesser than the table value and significant at the level of 0.05 and no significance association between the level of knowledge with selected demographic variables such as age, religion, years of course, previous knowledge about disaster, you undergone any in-service training in disaster preparedness, have you got any individual experience in disaster management ,relative living in disaster zone and how will you prepare yourself during disaster in which calculated value is greater than the table value and significant at the level of 0.05.

8. Summary and Conclusion

8.1 Major Findings of the study

The study findings to shows that is a significant association between the level of knowledge with selected demographic variables such as sex and seen any disaster affected place in which the calculated value is greater than the table value and significant at the level of 0.05 and no significance association between the level of knowledge with selected demographic variables such as age, religion, years of course, previous knowledge about disaster, you undergone any in-service training in disaster preparedness, have you got any individual experience in disaster management, relative living in disaster zone and how will you prepare yourself during disaster. • The comparison of pretest and posttest level of knowledge score among 60 sample of B.SC. Nursing students, the mean value is 16.33 and standard deviation is 6.454 the table value is 3.944 the calculated P value is 1.68. The posttest mean value is 28.5 and the standard deviation is 10.408 the T value is 3.944 the calculated P value is 1.68 which is significant at the level of 0.01 shows that the structure teaching programme was effective.

8.2 Conclusion

Based on the research findings it shows there was a significant improvement in the level of knowledge regarding Disaster preparedness after provided the structure teaching programme.

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