

A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF IEC PACKAGE ON DISASTER MANAGEMENT AMONG A GROUP OF NURSING STUDENT OF A SELECTED NURSING COLLEGE,DEHRADUN.

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Abstract

A catastrophe can happen anywhere, at any time. It is an occurrence that occurs suddenly and has an impact on the entire population. It causes victims to lose their lives, homes, and means of support. Disaster management is a strategy for dealing with a disaster and minimizing damage. One should play a crucial part in providing care to the victims in such a tragic disaster circumstance as a nursing student. Being in a group that provided assistance to disaster victims therefore requires having correct and sufficient expertise of disaster management. Lack of information might make it difficult to provide effective services and deal with a problem with confidence. IEC Package is a useful tool for educating individuals on how to handle a catastrophic scenario. Effectiveness of the IEC package is currently a popular study issue.

Statement of the problem

“A study to assess the effectiveness of IEC package on disaster management among a group of nursing students of a selected nursing college,Dehradun.”

Objectives of the study

- To assess the level of knowledge regarding disaster management among a group of nursing students of a selected nursing college Dehradun.”
- To evaluate the effectiveness of IEC package on disaster management among a group of nursing students of a selected nursing college Dehradun ”
- To associate the relationship of pre test knowledge score with selected demographic variable

Methodology

Pre-experimental study design, or one group pre-test post-test design, was chosen for this

topic. Using a quota sampling technique based on selection criteria, a total of 60 samples were chosen. The study's instrument was a structured questionnaire with questions about demographic factors and understanding of disaster management. All nursing internship students received the planned IEC package on alternate days, followed by a post-intervention test. The effectiveness of the package was then assessed by using descriptive and inferential statistics to compare the knowledge score between the pre- and post-tests.

Results

- The statistics indicate that, of the total, 50% of internships were for GNMs and 50% were for B.Sc. nursing students.
- According to Residence distribution ,78.33% were from urban area and 21.66% .
- According to the aspect of catastrophe exposure, 20% of students have experienced disaster, while 80% have not.
- The distribution of the 60 students reveals that 10% of the students have participated in some type of training program on disaster management, whereas 90% of the students have not.
- Every student has some prior understanding of disaster management, according on previous knowledge tests.
- Based on the information they received, 30% of them cited television as their primary source, 36.66% cited classroom instruction, 3.33% cited newspapers, and 30% cited the internet.
- With knowledge scores of 13.3 and 18.967 and standard deviations of 3.2004 and 4.98987 for the computed t value of 7.5446, descriptive and inferential statistics analysis revealed a substantial increase in understanding of disaster management.
- According to the study, 0% of students had enough knowledge before to the test, 78.33% had moderate knowledge, and 66% had insufficient knowledge. After intervention, 3.33% of students fall into the inadequate knowledge category, 60% fall into the moderate knowledge category, and 36.66% fall into the adequate knowledge category, indicating that the IEC package has a significant impact on raising awareness of disaster management.

Conclusion

The majority of students lack adequate knowledge on disaster management. According to

the study's findings, students' knowledge of disaster management increased as a result of the IEC package.

Keywords:- Disaster, Effectiveness, Knowledge, Disaster Management, IEC Package

1. INTRODUCTION

God, the creator, has fashioned such a lovely planet for us to enjoy our lives in without endangering the environment. Nature, including trees and rivers, was crafted by God. We humans are among God's most significant and intelligent creations. Since the beginning of time, humans have ruled this earth in their own interests. They are squandering the resources that God created in such a way that the equilibrium has been thrown off, and nature is working against man to restore it. It culminates in a number of natural disasters that cause terrible experiences for people all over the world, including floods, cyclones, hurricanes, landslides, thunderstorms, earthquakes, cold and hot waves, wind sheets, volcanoes, and tsunamis. Disaster damage is incalculable and depends on the geographic region, climate, and other factor.

A disaster is a sudden, catastrophic event that causes significant harm, loss, and devastation to both people and property. "A disaster can be defined as an occurrence either nature or manmade that causes human sufferings and create human needs that victim can't alleviate without assistance".

Disasters are defined by the NDMA as "catastrophes, mishaps, calamities, or grave occurrences in any area, arising from natural or man-made causes, or by accident or negligence, which results in substantial loss of life or human suffering, damage or destruction of property, damage to or degradation of environment, and is of a nature or magnitude that is beyond the capacity of community of the affected area."

Different categories of disaster exist. They are categorized based on their origin, rate of onset, and whether a human or natural act caused them. Disasters are primarily divided into two categories: natural disasters and disasters caused by humans. An examination of natural disasters and their effects on human lives and economic losses has been released by the United Nations Office for Disaster Risk Reduction. Approximately 4 billion individuals were affected by natural disasters between the years 2000 and 2019 under study, many of them more than once. Numerous yearly natural disasters that have an impact on human life include floods, storms, landslides, forest fires, earthquakes, and diseases. In addition to this, there are other catastrophes brought on by people. Given the aforementioned circumstances, WHO came up with the phrase "should disaster strike, be prepared" in 1991. The theme highlights the need to raise awareness of the serious harm that both natural and man-made disasters may do to human health.

India, which consists of 29 states and 7 union territories, has 22 states that are disaster-prone due to its meteorological and topographical conditions. Drought-prone areas make about 28% of the total cultivable land in the nation. 76 lakh hectares of land are flooded

annually, and 60 percent of the world's land mass is earthquake prone. Each year, floods claim the lives of around 1300 people. A total of 1,11,159 individuals were affected by tragedy in the rest of the world, while 5,54,459 people in Asia were. This represents 83 percent of the world's population. India has experienced 24% of all disaster-related fatalities in Asia. 60% of all disasters in India are caused by floods and strong winds. India is a very big country, and during its long history of civilization, it has had more than its fair share of devastating natural disasters like cyclones, earthquakes, floods, and drought. The new strategy is based on the conviction that catastrophe mitigation must be incorporated into the development process for development to be sustainable.

Disaster management is a key approach for any country to get ready for and deal with any disaster crisis brought on by either natural or man-made events. Disaster preparedness, planning, preventing or reducing a disaster, and responding to one are all included in disaster management.

According to the Disaster Management Act of 2005, disaster management refers to arrangements for minimizing, preventing, preparing for, responding to, and recovering from potential negative effects of an incident. Disaster management's primary goals are to:

- a. reduce or avoid the human, physical and economic losses suffered by individual, by the society and by the country at large.
- b. Reduce personal suffering
- c. Speed recovery

Every catastrophe teaches us something. When one considers the devastation caused by superstorms, wildfires, disease outbreaks, and enormous earthquakes over the past ten years, it's simple to become overwhelmed by the magnitude of the issue. But it's crucial to take away something positive from every calamity. Every time, the globe can react more skilfully by learning from the past and averting blunders. People's perceptions of the scale and impact of a disaster might change as harsh weather gets worse. IEC package on disaster management among nursing internship student strengthen the students confident in disaster management, promoting awareness and enhancing knowledge and skills of all students associated with migration, preparedness and response measures. The investigator believes that this package on disaster management of natural and man made disaster in both community as well as hospital setting will have a great impact and effectiveness on disaster preparedness. From the various sources the researcher identified that creating

awareness among nursing internship student will bring drastic changes and impacts on

disaster management among younger generations. As the internship students are in a phase that after few months they have to serve community as well as population, so this IEC programme will help them to gain more and more knowledge about disaster management

2. LITERATURE SURVEY

- Funda Ozpulat and Esma Kabasakal, 2018 conducted a study on knowledge levels of nursing students on Disaster Nursing and their state of disaster preparedness. This was a descriptive study and aimed to determine nursing students' knowledge levels on disaster nursing and their state of disaster preparedness. This study included fourth-year nursing students in two universities located in the Ankara and Konya provinces of Turkey. It was conducted in the second education terms between 2015-2016 and 2016-2017. For data analysis, this study used frequency values, a chi-square test to assess students' views on disaster nursing courses by their universities, and an independent sample t-test. Results: 51.6% students were nursing students in University A located in Konya, with 48.4% studying at University B in Ankara. The mean age of students was 2.41 ± 0.95 years, and 85.5% were female. Most of students studying in University A (67.8%) reported that they had received education about disasters, and this rose to 83.2% in University B students. This showed that students' disaster education status differed between universities. Only 6.8% of University A students reported that they had received disaster nursing education, while 68.6% of students studying at University B had received education about disaster nursing. The data obtained from this study showed that the status of receiving disaster nursing education varied according to the university attended ($p < 0.05$), that there were statistically significant relationships between disaster nursing knowledge scores and students' universities, genders, whether they had received education about disasters and disaster nursing. This study found significant differences between students in both universities in terms of their having received education about disasters, disaster nursing, and knowledge scores on disaster nursing.
- Radhika Mariappan, Ratna Philip (2018) conducted a comparative cross sectional study was conducted to assess the knowledge and attitude regarding disaster preparedness and management among nursing students and nurses at Khammam. 50 nurses and 50 nursing student were selected by using convenience sampling techniques. Data was collected by using a self administered questionnaire to assess the knowledge and a Likert scale to assess the attitude. The result showed that 32%

of the staff nurse and 14% of nursing student had adequate knowledge regarding disaster management. With regards to attitude among staff nurses majority of nurses have favourable attitude and 8% were neutral attitude. Among nursing student 98% had a favourable attitude and 2% were neutral.

- Karuna,Ruchi,Kalsang et.al. (2020) A cross sectional study was conducted on 130 nursing student regarding Disaster management and emergency preparedness. Data was collected using a structured questionnaire. Descriptive statistics was used to explore data. Chi square test was used to study the association between categorial variables. The results shows that the median age of 130 student were 22. Out of total,96.9% of the student were females. Only 58(44.6%) student had undergone mock drill. Almost half of the student have never experienced disaster . Majority of student exhibits average knowledge79 (60%). There was a significant association of knowledge level of student with their age.

3. RESEARCH METHODOLOGY

A pre-experimental study was conducted using quota sampling technique to collect data from 60 samples from the nursing internship student at selected college of Dehradun. The Inclusion Criteria for the study were nursing internship students from GNM and B.Sc Dehradun from a selected College of Nursing,Dehradun who are willing to participate in the study. Student who were not present at the time of study, who were not in their internship period,ANM and Post basic nursing student were in exclusive criteria.The self structured questionnaire method was used to assess effectiveness of IEC package on disaster management among a group of nursing students of a selected nursing college Dehradun.In this study ,the data was collected in August for a period of 4 weeks. Sample was divided into 6 groups.Pre test was conducted according to the group distribution followed by administration of I.E.C package. After 7day of I.E.C administration, the research was concluded by post test.

After data collection, data was analyzed with the help of descriptive and inferential statistics.

4. RESULTS

The collected data were tabulated and presented according to the objectives under:-

Section 1:- Description of sample characteristics.

Section 2:- Description of the effectiveness of I.E.C package on disaster management among group of nursing student

Section 3:- Description of association between pre-test knowledge score on effectiveness of I.E.C package on disaster management among group of nursing student with their selected demographic variables

Table 1:- Frequency and percentage distribution of sample characteristics.

Sample characteristics	Frequency (f)	Percentage (%)
N=60		
Gender		
Male	10	16.66%
Female	50	83.33%
Class		
B.Sc Nursing Internship	30	50%
GNM Internship	30	50%
Residence		
Urban	47	78.33%
Rural	13	21.66%
Ever Faced Disaster		
Yes	12	20%
No	48	80%
Attend any training program on Disaster Management		
Yes	6	10%
No	54	90%
Previous knowledge regarding Disaster Management		
Yes	60	100%
No	00	0%
Source of previous information		
Television	18	30%
Classroom teaching	22	36.66%
Newspaper	2	3.33%
Internet	18	30%

Table 2.1:- Assessment of pre test and post test level of knowledge regarding effectiveness of IEC Package on Disaster Management among group of nursing students.

N=60

Level of knowledge	Score Range	Pre test		Post test	
		Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	1-10	13	21.66%	2	3.33%
Moderate knowledge	11-20	47	78.33%	36	60%
Adequate knowledge	21-30	0	0%	22	36.66%

Table 2.2:- Mean and S.D of pre test and post test knowledge regarding effectiveness of IEC package on Disaster Management

	Mean	Mean Difference	Standard deviation	Standard error mean	Degree of freedom	Calculate "t" value	Table value	Level of significance (0.05)
Pre test	13.3	5.6667	3.2004	0.41667	59	7.5446	2.0010	Significant
Post test	18.967		4.98987	0.64419				

Table 3- Association between pre test knowledge score with their demographic variables.

N=60

Demographic Variables	Inadequate knowledge		Moderate knowledge		Adequate knowledge		df	Chi square	Table value	Level of significance
	F	%	F	%	F	%				
GENDER										
Male	1	1.66	9	15	0	0	3	0.95706	7.82	N.S
Female	12	20	38	63.33	0	0				
CLASS										
B.Sc Nursing	3	5	27	45	0	0	3	4.8112	7.82	N.S
Internship										
GNM internship	10	16.66	20	33.33	0	0				
RESIDENCE										
Urban	12	20	35	58.33	0	0	3	1.90945	7.82	N.S
Rural	1	1.66	12	20	0	0				
EVER FACED DISASTER										
Yes	1	1.66	11	18.33	0	0	3	1.571	7.82	N.S
No	12	20	36	60	0	0				
ATTEND ANY TRAINING PROGRAM ON DISASTER MANAGEMENT										
Yes							3	4.011	7.82	N.S
No	0	0	6	10	0	0				
	13	21.66	41	68.33	0	0				
PREVIOUS KNOWLEDGE REGARDING DISASATER MANAGEMENT										
Yes							3	0	7.82	N.S
No	13	21.66	47	78.33	0	0				
	0	0	0	0	0	0				
SOURCE OF PREVIOUS INFORMATION										
Television	4	6.66	14	23.33	0	0	9	1.60362	16.92	N.S
Classroom teaching	6	10	16	26.66	0	0				
Newspaper	0	0	2	3.33	0	0				
Internet	3	5	15	25	0	0				

5.CONCLUSION

The overall mean percentage of pre test knowledge score on Disaster management was found to be 13.3% which indicates that respondents lacked knowledge. The overall mean percentages of post test knowledge scores on Disaster management was found to be 18.967% which indicates that the respondent gained knowledge after implementation of IEC package. On the other side, it was observed that demographic variables such as gender, class, residence, ever faced disaster, attend any training programme on Disaster Management, previous knowledge about Disaster management and source of previous information did not influence the overall knowledge regarding Disaster management among the group of Nursing internship student.

6.FUTURE SCOPE

The findings of the study clearly enlighten the effectiveness of IEC package on disaster management among selected group of nursing internship student and had significantly improved the knowledge of the participants and helps them to lead a healthy and peaceful living. Being from a nursing profession, they can apply this knowledge in providing care to the population.

A nurse educator can impart this knowledge of Disaster management among the upcoming future nurse. The nursing students must be encouraged to actively participate in educating about the disaster management by using appropriate disaster drills and audio visual aids with appropriate teaching methods. A nurse educator helps nursing student in preparing them for any emergency situation of Disaster. A nursing educator instruct aspiring nurses and offer guidance , which may includes training in Disaster Management like mock drills.

With the rise of advance technology and the ever growing challenges of health care ,the nurse administrators must have a responsibility to provide nurses continuing nursing education opportunities. This will enable the nurses to improve their knowledge, acquire special skills and achieve high quality of nursing care. Nurse administrators should focuses on initiating and organizing the continuing nursing education programmes on IEC package and its effectiveness on disaster management for the selected nursing students. Nursing administrators should take adequate steps in formulating protocol and policies in providing client education and plans for manpower, money and material methods and time to conduct successful and useful educational programmes. There is a need for emphasis on the extensive and intensive research in this particular area. This research will help in generating more scientific data base on which new strategies, plans and policies could be developed. The study can be base line for the future research to build upon. The research

also brings about the fact that more studies need to be done at different settings which is culturally acceptable with better teaching strategies of education. Nurses should conduct periodic education programmes to review the research findings and disseminate the findings through conferences, seminars and publication in professional, National and International journals and in the web site also.

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