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A STUDY TO ASSESS KNOWLEDGE REGARDING PREPAREDNESS OF DISASTER MANAGEMENT AMONG RURAL PEOPLE OF AMODAR VILLAGE

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ABSTRACT

BACKGROUND OF THE STUDY: Preparedness of disaster management plays an important role in mitigating the adverse health effects of natural and manmade disaster. It is important to create awareness among rural people regrading disaster problems and how to overcome and protect themselves during such disasters. In present study the aim is assess" preparedness of disaster management among rural people of amodar village". The objective of the study to assess the pretest level of knowledge among people regarding disaster management and to evaluate the effectiveness of video assisted teaching program on disaster management amongpeople and finally to find the association between the pre-test knowledge scores of people with selected demographic variables. Material and method: An evaluatory research approach were used for this study-experimental one group pretest — post-test design (Ol X O2) is adopted for this. The study is conducted in the rural area of Vadodara District. The data will be collected from the people of rural community at Vadodara District Sample are the people from Amodar village. People (21 -50years) from rural community of Vadodara District. A total of 100 samples of people residing in rural area of Vadodara District. A non-probability convenient sampling technique will be used by student researcher for sample. The data was collected using self-structured questionnaires. The result showed that post-test score 14.04 with

standard deviation 2.558 comparing with pretest score 7.51 with standard deviation 1.766 the paired T value is 0.9696, which is highly significant at 0.05.

AIM: This study aimed to find out the knowledge regarding preparedness of disaster management among rural people of Amodar village. **Material and method:** An evaluator research approach were used for this study-experimental one group pretest — post-test design (Ol X O2) is adopted for this. The study is conducted in the rural area of Vadodara District. The data will be collected from the people of rural community at Vadodara District Sample are the people from Amodar village. People (21 -50years) from rural community of Vadodara District. A total of 100 samples of people residing in rural area of Vadodara District. A non-probability convenient sampling technique will be used by student researcher for sample.

Keywords: Knowledge, Preparedness, Rural population

INTRODUCTION

"A great calamity is as old as the trilobites an hour after it has **happened."**

"Prevention is better than cure" is an old saying which is very apt in the context of disaster management. India is very large country and has more than its share of major natural hazards like drought, floods, earthquakes and cyclones throughout its history of civilization. Disaster is a sudden, calamitous and unfortunate event that brings with its great damage, loss, destruction and devastation to human life as well as property and also hampers the ongoing developmental projects in a particular area being affected by the disaster'. Disaster has been defined in many ways; World Health Organization has defined disaster as any sudden occurrence of the events that causes damage, ecological disruption, loss of human life, deterioration of health and health services, on a scale sufficient to warrant an extraordinary response from outside the affected community or area. According to, India's Hazard Profile 60 % of land mass prone to earth quakes, 40 million hectares that is 8 % of landmass prone to floods, 800() 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. The damage caused by disasters is immeasurable and varies with the geographical location, climate and the type of the earth surface/degree of vulnerability. At times there can be disasters where there is no loss of human life and at times these can also cause a huge loss of life and property. India lies on the Indian Plate, the northern portion of the Indo- Australian Plate, whose continental crust forms the Indian subcontinent. It is the seventh largest country in the world

with a total area of 3,287,263 square kilometers. India has been traditionally vulnerable to natural disasters on account of its unique geo climatic conditions such as floods, droughts, cyclones, earthquakes and landslides of various intensities'. A fire is defined as an undesirable event which emits heat, smoke and/or flame, which has the potential to cause damage, may require intervention either mechanical or human or has a cost implication. India's increasing population and extensive unscientific constructions mushrooming all over, including multi storied luxury apartments, huge factory buildings, gigantic malls, supermarkets as well as warehouses and masonry buildings keep - India at high risk. During the last 15 years.

The country has experienced 10 major earthquakes that have resulted in over 20,0U0 deaths. As per the current seismic zone map of the country, over 59 per cent of India's land area is under threat of moderate to severe seismic hazard. The entire Himalayan belt is considered prone to great earthquakes of magnitude exceeding 8.0 and in a relatively short span of about 50 years, four such earthquakes have occurred: 1897 Shelling (M8.7); 1905 Kangra (M8.0); 1934 Bihar- Nepal (M8.3); and 1950 Assam - Tibet (M8.6). Scientific publications have warned of the likelihood of the occurrence of very severe earthquakes in the Himalayan region, which could adversely affect the lives of several million people in India.

India has witnessed some devastating earthquakes in the past years & according• to the reports from United Nations and World bank - by the year 2050 more than 200 million people living in urban India will be exposed to the earthquakes [6]. Maharashtra and the adjoining regions are prone to earthquakes of moderate magnitude as can be seen from the experience of several years. Bombay, Latur, Beed, Parbhani, Nanded, Nagpur, Nashik, Satara, Pune, Sangli, and Ratnagiri have been identified as districts of maximum earthquake risk in the state as per the Maharashtra Disaster Management Plan. Latur earthquake was one of the deadliest earthquakes Maharashtra has seen till date. The earthquake struck at about 3.56 am on September 30, 1993. In the intraplate earthquake about 52 villages were destroyed. over 30,00() were injured and approximately 10,000 were killed. The earthquake left a huge hollow at Killari, which was also the epicenter.

There are around 1821 notable large dams in the state of Maharashtra, India. The seismic hazard updated map of India (Bureau of Indian standards 2000) includes Beed, Osmanabad and Latur along with eastern sections of Ahmednagar, Pune, Satara and Sangli

districts in zone The Koynare servoir and surroundings comes under the high risk of earthquake.

MATERIAL AND METHODS:

The Research Approach of this study wasan evaluatory research approach and the Research Design was Pre-experimental one group pretest — post-test design (Ol X O2) is adopted for this. The research was conducted in the rural area of Vadodara district at amodar village. The source of the data was collected from the rural community from amodar village. The population selected for research was between the age group of 21-50 years from the rural community. The sample size of the research was a total of 100 people residing in rural area of Vadodara district at amodar village. The sampling technique used for data collection was a non-probability convenient sampling technique.

Inclusion Criteria for the research was:

1. People willing to participate.
2. Adults between 21 to 50 years of age.
3. People present in the community at the time of the study.
4. Participants who can read and write 'English and Gujarati' language.

Exclusion Criteria:

1. People who do not know to read and understand English and Kannada.
2. People who are not willing to participate in the study.

RESULTS

The study findings are organized as follows:

SECTION-1: It deals with the analysis of the demographic data of the samples.

SECTION-2: Assessment of knowledge regarding selected aspects of disaster among the samples.

SECTION-3: It deals with the analysis of the data related to effectiveness of video assisted teaching on disaster preparedness.

SECTION-4: It includes analysis of data to find the association between the pre-test knowledge & selected demographic variables.

SECTION-1

DESCRIPTION OF THE DEMOGRAPHIC VARIABLES

Table 1: Frequency and percentage of distribution of samples, according to the subjects given below.

Table 1: Show that majority of subjects 23% belongs to 46-50 (N=100)

SR. NO	VARIABLE	FREQUENCY	PERCENTAGE
1)	AGE		
	A) 21-25	15	15%
	B) 26-30	14	14%
	C) 31-35	13	13%
	D) 36-40	18	18%
	E) 41-45	17	17%
	F) 46-50	23	23%
	TOTAL	100	100%

Table 2: Shows that majority of subjects 53% belongs to male category

2)	**GENDER**		
	A) MALE	**53**	**53%**
	B) FEMALE	**47**	**47%**
	TOTAL	**100**	**100%**

Table 3: Shows that majority of subjects 86% belongs to Hindu religion

3)	**RELIGION**		
	A) HINDU	**86**	**86%**
	B) MUSLIM	**14**	**14%**
	C) CHRISTIAN	**0**	**0**
	D) OTHERS	**0**	**0**
	TOTAL	**100**	**100%**

Table 4: Shows that majority of subjects 36% belongs to illiterate category

4)	**EDUCATION**		
	A) PRIMARY	**31**	**31%**
	B) SECONDARY	**27**	**27%**
	C) GRADUATE	**6**	**6%**
	D) ILLITERATE	**36**	**36%**
	TOTAL	**100**	**100%**

Table 5: Shows that majority of subject 35% belongs to housewife category

5)	**OCCUPATION**		
	A) FARMER	**13**	**13%**
	B) PRIVATE	**20**	**20%**
	C) SERVICE	**22**	**22%**
	D) BUSSINESS	**10**	**10%**
	E) HOUSEWIFE	**35**	**35%**
	TOTAL	**100**	**100%**

Table 6: Shows that majority of subject 54% belongs to NO category

6)	**DISASTER EXPERIENCE**		
	A) YES	**46**	**46%**
	B) NO	**54**	**54%**
	TOTAL	**100**	**100%**

Table 7: Shows that majority of subject 93% belongs to television category

7)	**SOURCE OF INFORMATION**		
	A) **TELEVISION**	**93**	**93%**
	B) **JOURNALS**	**0**	**0**
	C) **RADIO**	**0**	**0**
	D) **MAGAZINE AND BOOKS**	**7**	**7%**
	E) **ELDERLY AND FRIENDS**	**0**	**0**
	TOTAL	**100**	**100%**

SECTION-2

Table 8: percentage of pretest and post-test

PRETEST KNOWLEDGE SCORE IN PERCENTAGE:

Table 9: Post-test knowledge score and level of knowledge

DESCRIPTION OF POST-TEST KNOWLEDGE SCORE AND LEVEL OF KNOWLEDGE:

Table 10: Comparison between pretest and post-test knowledge score

COMPARISION OF PRE-TEST & POST-TEST KNOWLEDGE SCORES REGARDING THE DISASTER PREPAREDNESS AMONG THE RESPONDENTS:

Table 8: Shows that the pretest knowledge is majority belongs to 58% who have a mildly moderate knowledge with score between 6-10

Knowledge score	Score	N	Percentage
Inadequate knowledge	1-5	0	0%
Mildly inadequate knowledge	6-10	58	58%
Moderately inadequate	11-15	42	42%
Adequate knowledge	16-20	0	0%
TOTAL	1-20	100	100%

Table 9: Shows that the post-test knowledge is majority belongs to 58% with score of 6-10

Knowledge score	Score	N	Percentage
Inadequate knowledge	1-5	0	0%
Mildly inadequate knowledge	6-10	58	58%
Moderately inadequate	11-15	42	42%
Adequate knowledge	16-20	0	0%
TOTAL	1-20	100	100%

Table 10: Shows that the post test is more than pretest knowledge score, with pretest 58% with score between 6-10 and post-test 54% with score 11-15

Knowledge score	Range of score	Percentage	Pre-test	Post-test
Inadequate knowledge	1-5	0-25%	0	0
Mildly inadequate knowledge	6-10	26-50%	58	6
Moderately inadequate knowledge	11-15	51-75%	42	54
Adequate knowledge	16-20	76-100%	0	40

SECTION-3

ANALYSIS OF DATA RELATED TO EFFECTIVENESS OF THE TEACHING PROGRAMME:

PAIRED SAMPLE STATISTICS

Table 11, It shows that the mean of pretest is 7.51 and post-test is 14.04, standard deviation of pretest is 1.766 and post-test is 2.558, standard evaluation of pretest is 0.1766 and post-test is 0.2558 and total value is 0.9696, difference is 99.

Table 11: Mean of pretest and post-test N=100

TEST	MEAN	N	MEAN DIFFERENCE	STD. DEVIATION	SE MEAN	CO-EFFICIENT 't' CO-RELATE	T VALUE	P	SIG
PRE-TEST	7.51	100		1.766	0.1766				
POST-TEST	14.04	100	6.53	2.558	0.2558	2.57	0.9696	0.04	0.05

S= significant **NS=Nothing significant**

SECTION-4

ANALYSIS OF DATA TO FIND ASSOCIATION BETWEEN POST TEST KNOWLEDGE AND DEMOGRAPHIC VARIABLES.

This section deals with the finding of the association between knowledge and attitude scores with selected socio-demographic variables age, gender, religion, education, occupation, disaster experience and source of information on preparedness of disaster management by the help of chi square formula.

Table Association of demographic variables with posttest knowledge score

Table 1 shows the relation between posttest knowledge with demographic variables

Table 1: Shows that association between age and knowledge score was statistically not significant at p>0.05 level, using chi square value, excluded adequate knowledge as it has zero value

Sr no	Characteristics	Frequency	Level of knowledge				Degree of freedom	T value	Chi square x2	Sig
			Inadequate knowledge (1)	Mildly adequate knowledge (2)	Moderately adequate knowledge (3)	Adequate knowledge (4)				
1	AGE									
A	21 – 25 years	15	0	0	9	6	5	8.3186	16	
B	26-30 years	14	0	1	7	6				
C	31-35 years	13	0	3	8	2				
D	36-40 years	18	0	2	7	9				
E	41-45 years	17	0	0	11	6				
F	46-50 years	23	0	3	11	9				
	Total	100	0	9	53	38				

Table 2: Shows that association between gender and knowledge score was statistically significant at p> 0.05 level using chi square value, excluded adequate knowledge as it has zero value

2	GENDER									
A	Male	53	0	3	28	22	5	2.150	17	0.05
B	Female	47	0	4	27	16				
	Total	100	0	7	55	38				

Table 3: Shows that association between religion and knowledge score was statistically not significant at p>0.05 level using chi square value, excluded adequate knowledge as it has zero value

3	RELIGION									
A	Hindu	86	0	4	46	36	5	1.81	18	0.05
B	Muslim	14	0	2	9	3				
C	Christian	0	0	0	0	0				
D	Others	0	0	0	0	0				
	Total	100	0	6	55	39				

Table 4: Shows that association between education and knowledge score was statistically not significant at p>0.05 level using chi square value, excluded adequate knowledge as it has zero value

4	EDUCATION									
A	Primary	31	0	0	14	17	5	3.10	18	0.05
B	Secondary	27	0	1	15	11				
C	Graduate	6	0	1	3	2				
D	Illiterate	36	0	4	24	8				
	Total	100	0	6	56	38				

Table 5: Shows that association between occupation and knowledge score was statistically not significant at p>0.05 level using chi square value, excluded adequate knowledge as it has zero value

5	OCCUPATION									
A	Private	33	0	2	21	10	5	3.10	18	0.05
B	Service	22	0	0	12	10				
C	Business	10	0	1	5	4				
D	Housewife	35	0	3	18	14				
	Total	100	0	6	56	38				

Table 6: Shows that association between disaster experience and knowledge score was statistically not significant at p>0.05 level using chi square value, excluded adequate knowledge as it has zero value

6	DISASTER EXPERIENCE									
A	Yes	46	0	3	30	13	5	3.10	18	0.05
B	No	54	0	3	26	25				
	Total	100	0	6	56	38				

Table 7: Shows that association between source of information and knowledge score was statistically not significant at p>0.05 level using chi square value, excluded adequate knowledge as it has zero value

7	SOURCE OF INFORMATION									
A	Television	93	0	6	53	34	5	3.10	18	0.05
B	Journals	0	0	0	0	0				
C	Radio	0	0	0	0	0				
D	Magazine & Books	7	0	0	2	5				
E	Elderly & Friends	0	0	0	0	0				
	Total	100	0	6	55	39				

DISCUSSION:

FINDINGS OF THE STUDY AND DISCUSSION:

- For gender demographic variable it shows majority with the males 53% & females 47%.
- For education demographic variable it shows majority with primary 31% of the respondents.
- Previous disaster experience shows majority with NO- 54%.
- For source of information of the demographic variable it shows 93% with television.
- the findings related to demographic variable attribute showing that 31% respondents were educated up to primary, 27% were educated up to secondary education, 16% were graduated & 26% were illiterate.
- 23% belong to the age group of 46-50 years, 17%belong to age group 41-45, 15% for 21-25 and18% of 36-40 years of age group, 13% belongs to 31-35 years & 14% belongs to 26-30 years of age group.
- 53% of the respondents are males & 47% are females.
- 86% of the respondents belong to Hindu religion & 14% of them belong to Muslim religion.
- 46% of the respondents had experienced disaster previously and 54% had not experienced it till now.
- 35% of respondents are housewives, 22% are in service class, 20% are working in private sector, 13% of them are farmers and 10% of them have their own businesses.
- 93% of respondents got the information from the television & 7% from the magazines and books.
- 58% of the respondents had mildly inadequate knowledge & 42% had moderately inadequate knowledge about disaster preparedness.
- post-test scores of the respondents & 54% of them have moderately inadequate knowledge about the disaster preparedness.

CONCLUSION:

This study presents the conclusions drawn, implications, limitations, and delimitations and the recommendations of the study, the focus of the study

"A Study to Assess the Knowledge of Preparedness of disaster management among rural people of Amodar village"

The study undertaken was "Preparedness of disaster management among rural people of Amodar village". The study involved one group pre-test and post-test using pre-experimental design, with using non probability convenience sampling technique method. The size of the sample was 100 and selection of the sample was done according to inclusion and exclusion criteria. The residents of the Amodar village completed the self-structured questionnaire in pre-test, post-test was conducted after the video assisted teaching. Effectiveness was assessed by analysis of pre-test & post-test knowledge score & 't' value in both groups. The data was interpreted by suitable and appropriate statistical method. This chapter deals with the following conclusions.

- 58% of the respondents had mildly inadequate knowledge & 42% had moderately inadequate knowledge about disaster preparedness.
- The post-test scores of the respondents & 54% of them have moderately inadequate knowledge about the disaster preparedness.
- The chi-square was used to determine the association between pre-test & selected demographic variables. Among the demographic variables shows significant association between the level of knowledge and selected variables like age were having significant association at the level of 0.05 and others were non-significant Religion, Educational status, Occupation and others. Among all the demographic variables previous knowledge and source of information were having non-significant association at the level of 0.05.

Conflicts of interest: The author declared that there are no any conflicts of interest.

Ethical clearance: As the study conducted on humans, approval from institutional ethical committee was obtained before commencement of the study.

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