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Effectiveness of awareness program on disaster preparedness and mitigation among teachers in selected secondary schools of City.

Parmeshwar D. Kharat
pdkharat480@gmail.com
MGM Mother Teresa College of Nursing, Aurangabad, Maharashtra

Dipak N. Khadke
dipak123.sk@gmail.com
MGM Mother Teresa College of Nursing, Aurangabad, Maharashtra

ABSTRACT

Emergency planning is the systematic and ongoing process which should evolve as lessons are learntand circumstances change. Its aim is to prevent emergencies occurring and when they do occur,good planning should reduce, control or mitigate the effects of the emergency. One group pre-test post test design was used in this study. A purposive sampling technique was used to select 150 Secondary school teachers. Based on the objective collected data was analysed by using descriptive and inferential statistics like mean, median, standard deviation, paired t test, chi square test. An analysis finding depict that the corresponding p<0.05, so null hypothesis is rejected. The change in the post-test knowledge score (22.74) of teachers is significantly higher than pre-test score (16.09). Awareness programme is proved an effective method to improve knowledge of teacher regarding disaster preparedness and mitigation. The study also had significant association between knowledge score and gender, previous knowledge of disaster preparedness and mitigation.

Keywords: *Effectiveness, Awareness Programme, Teachers, Disaster Preparedness And Mitigation.*

1. INTRODUCTION

Understanding risks will help speed recovery efforts and help keep problems from becoming worse. Improper use of portable generators or heating devices can release deadly carbon monoxide to indoor air. Ice-melting agents used improperly can pollute waterways. Large amounts of debris can present serious disposal problems for state and local communities. Owners or operators of damaged facilities may be responsible for reporting spills.

"A disaster", as defined by the World Health Organization, "is any occurrence that causes damage, economic destruction, loss of human life, and deterioration in health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area". Disasters could be natural, such as, earthquake, floods, droughts, and cyclones or man-made like industrial accidents, environmental fallouts of an industry or a commercial establishment, communal riots, and epidemics etc. Globally, natural disasters account for roughly eighty per cent of all disasters affecting people.

Disaster is a natural or man-made event that negatively affects life, property, livelihood or industry ofte1n resulting in permanent changes to human societies, ecosystems and environment." Disasters are highly events that cause suffering, deprivation, hardship and even death, as a result of direct injury, disease, interruption of commerce and business, and the partial or total destruction of critical infrastructure such as homes, hospitals, and other buildings, roads, bridges, power lines.

2. NEED FOR THE STUDY

The State Plan for preparedness and mitigation attempts to protect the lives and properties of the people of Delhi from potentially devastating hazards by the implementation of an effective long term Delhi Disaster Management Policy. The initiatives under this plan lay down certain objectives and suggest definitive strategies leading to the achievement of goals in a set time frame. The ultimate goal for the Government of Delhi with respect to various hazards is to have prepared communities in a way that when the hazards strike, there is little or no loss of life; least number of injuries and the losses to property and infrastructure are not critical. Each element in this plan has a specific role and significant contribution towards the end target of a safer Delhi.

According to statistics released by the National Crime Records Bureau (NCRB), 28 states together accounted for 1, 36,771 deaths and the seven union territories for the remaining. Tamil Nadu tops the list of with 16,175 deaths in 67,757 accidents, followed by Uttar Pradesh with 15,109 deaths in 24,478 accidents. Andhra Pradesh is third with 14,966 deaths in 39,344 accidents and Maharashtra fourth with 13,936 deaths in 45,247 accidents. The capital city of Delhi accounts for 1,866 deaths in 6,937 accidents.

Almost 85% of the country is vulnerable to single or multiple disasters. Of the 35 states and union territories in the country, 27 are disaster prone. The multi hazard map of India depicts those 229 districts of India are prone to multiple hazards, West Bengal for example is prone to four types of hazards. Floods, droughts, earthquakes, cyclones, landslides and avalanches have taken a heavy toll of lives and have caused enormous damage to property. Tsunami is the latest addition to India's woes of natural disaster.

Among all the continents, Asia is the most vulnerable to disasters. For the period from 1991 and 2000, Asia accounted for as much as 83 per cent of the population affected by disasters globally. And, within Asia, India is known to be one of the most disaster-prone countries. Natural disasters, onan average, affect 60 million Indians annually. In India, about 85 per cent of the area is vulnerable to one or multiple natural disasters. About 68 per cent of the total sown area in the country is drought- prone, roughly 57 per cent of the country's area lies in high seismic zone, and floods and high winds account for 60 per cent of all-natural disasters in the country. About 8% of the total area is prone to cyclones. In the decade 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical.

3. PROBLEM STATEMENT

"A study to assess the effectiveness of awareness programme on disaster preparedness and mitigation among teachers in selected secondary schools of City."

5. OBJECTIVES OF STUDY

1. To assess the level of knowledge regarding disaster preparedness and mitigation amongteachers in selected secondary schools.
2. To assess the effectiveness of awareness programme on disaster preparedness and mitigationamong teachers in selected secondary schools.
3. To find out the association between knowledge scores and selected demographic variables ofteachers in selected secondary schools.

5. HYPOTHESIS

1. **Ho1**- There will be no significant difference in knowledge score of teachers of secondaryschools.
2. **Ho2**There will be no significant association between knowledge score and demographicvariables among teachers in selected secondary schools.

6. ETHICAL ASPECT

- The dissertation / ethical committee approved the research proposal.
- Official permission obtained from the authority of school.
- The written consent obtained from the study participants
- Data collection procedure kept as confidential.

7. RESEARCH METHODOLOGY

Research Approach: Quantitative evaluative research approach
Research Design: One group pre-test-post-test research design.
Setting of the Study: The setting of present study is in selected secondary schools at Aurangabad.
Population: -
Target Population: It comprises the secondary school's teacher.
Accessible population: includes School teachers from selected secondary schools at Aurangabad.
Samples: Secondary school teachers.
Sampling Technique: Non probability purposive sampling.
Sample Size: - The sample size comprises of 150 Secondary schools' teacher.
Criteria for Sample Selection:
Inclusion Criteria:

- School teachers working in selected school.
- Willing to participate in the study.
- Available during the time of data collection
- Teachers of municipal school

Exclusion Criteria:

- Sick, absent during the time of data collection.
- Who is appointed part time/ guest teachers
- Teacher of private schools.

Description of the tool
The tool consists of two sections.

Section- A
Socio-demographic data on different variables such as age, Gender, Qualification Residences, Experience & previous Knowledge of Disaster preparedness and mitigation.

Section-B
It consists of 30 items knowledge regarding disaster preparedness and mitigation among the selected teachers. Each item has four options with one most appropriate answer. The maximum score for the correct response to each item was one and for the wrong answer the score is zero. Thus for 30 items, the maximum obtainable scorewas 30.

Scoring mode:
Each correct was given a score of one & incorrect response a score of zero. The maximum scoring possible was30 & minimum 0 in the knowledge questionnaire. The scoring was categorized as
00– 15 = Inadequate Knowledge.

16 – 22 = Moderate Knowledge.

23 –30= Adequate Knowledge

Organization of findings
The data analyzed are presented under the following sections.

Section I: Description of sample characteristics.

Section II: Assessment of level of knowledge regarding disaster preparedness and mitigation among teachers inselected secondary schools.

Section III: Evaluate the effectiveness of awareness programme on disaster preparedness and mitigation amongteachers in selected secondary schools.

Section IV: Association between knowledge scores and selected demographic variables of teachers in selectedsecondary schools

Section I: Frequency distribution of socio demographic variables among teachers

Table No. 1. Frequency distribution of teachers according to their socio demographic characteristics N=150

Sr. No	Demographic Variable	Category	Frequency	%
1	Age in Years	24-32 years	51	34.00
		33-41 years	45	30.00
		42-50 years	34	22.67
		51-58 years	20	13.33
2	Gender	Male	67	44.67
		Female	83	55.33
3	Education	D.Ed	53	35.33
		B.Ed	54	36.00
		M.Ed	26	17.33
		B.P, Ed	17	11.33
4	Experience	1-5 years	31	20.67
		6-10 years	53	35.33
		11-15 years	33	22.00
		More than 15 years	33	22.00
5	Residence	Urban	140	93.33
		Rural	10	6.67
6	Previous knowledge regarding disaster	Yes	122	81.33
		No	28	18.67
7	source of information	Newspaper	37	24.67
		Television	38	25.33
		Mass media	33	22.00
		Other	14	9.33

The above table 1 interprets, that majority of samples 51(34%) belong to the age group of 24-32 years, 45(30%) belong to 33-41 years, 34(22.67%) belongs to 42-50 years and only 20(13.33%) belongs to age group of 51-58 years.

Regarding gender, majority of the samples 83(55.33%) belongs to female and 67(44.67%) were males. Regarding education qualification, majority of the samples 54(36%) were qualified with B.Ed,

53(35.33%) qualified with D.Ed, 26(17.33%) were M.Ed and 17(11.33%) were B.P.Ed qualification.

With regards to years of experience, majority of the samples 53(35.33%) were 6-10 years of experience, 33(22%) were having 11-15 and more than 15 year of experience and 31(20.67%) were having 1-5 years of experience.

Regarding residence of the sample, majority of the samples 140(93.33%) were residing at urban area and only 10(6.67%) were residing at rural area.

With regards to previous knowledge regarding disaster, majority of the samples 122(81.33%) were aware and known about disaster whereas 28(18.67%) were not having knowledge regarding it.

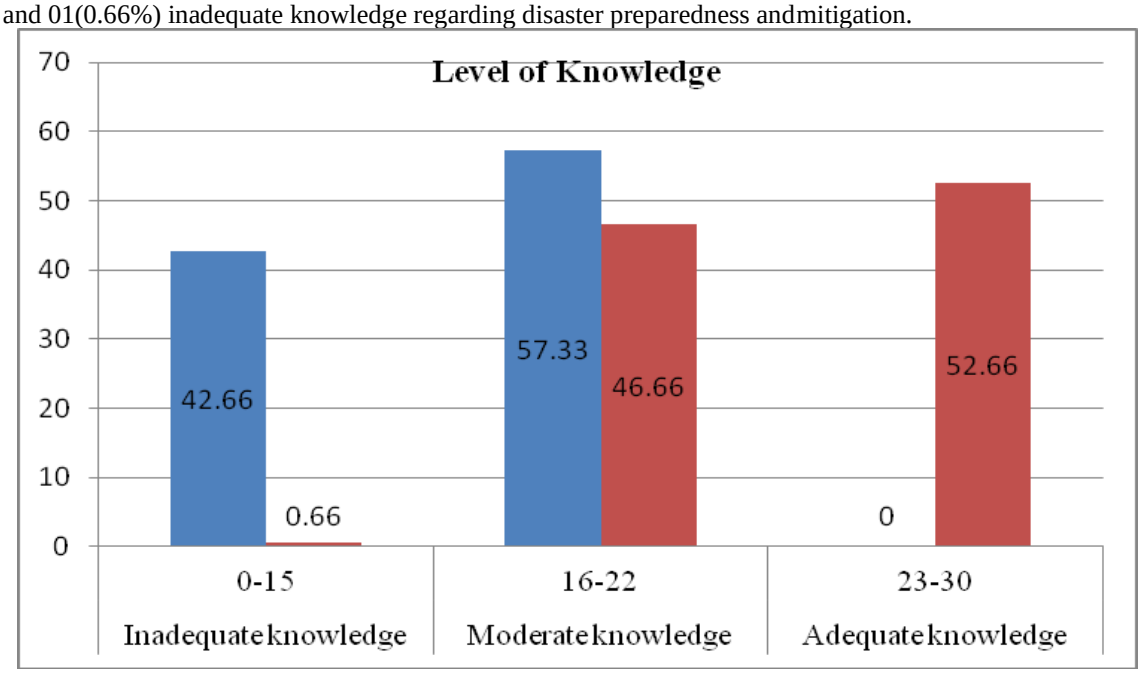
With regards to source of information in concern to disaster, majority of the sample 38(25.33%) were getting information from television, 37(24.67%) were read from news paper, 33(22%) were heard from mass media and 14(9.33%) were from other source of information.

Section II: Assessment of level of knowledge regarding disaster preparedness and mitigation amongteachers in selected secondary schools

Table 2- Frequency and percentage distribution of level of knowledge regarding disaster preparednessand mitigation among teachers N=150

Level of Knowledge	Score	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	0-15	64	42.66	01	0.66
Moderate knowledge	16-22	86	57.33	70	46.66
Adequate knowledge	23-30	0	0	79	52.66

The table no 2 shows that, pre-test majority of the samples 86(57.33%) had moderate knowledge, 64(42.66%) had inadequate knowledge and none of the sample had adequate knowledge regarding disaster preparedness and mitigation.
With regards the post-test knowledge majority of the samples 79(52.66%) had adequate knowledge, 70(46.66%) had moderate knowledge and 01(0.66%) inadequate knowledge regarding disaster preparedness andmitigation.



Graph No. 01 Frequency and percentage distribution of level of knowledge regarding disasterpreparedness and mitigation among teachers.

Section III: Evaluate the effectiveness of awareness programme on disaster preparedness and mitigation among teachers in selected secondary schools.

Table -3 Effectiveness of awareness program on disaster preparedness and mitigation among teachers N=150

Test	Mean	SD	SEM	T	DF	P-value
Pre-test	16.09	2.640	0.215	57.729	149	<0.0001
Post-test	22.74	2.796	0.22			

The table no.3 shows that there were 150 school teachers in a study. Each of them had answered 30 questions. Their pre and post-test correct answers were recorded and mean and standard deviation of the test scores are calculated. The paired t test was applied to compare difference between average scoring of before andafter administration of awareness programme. It was found that gain in knowledge regarding disaster preparedness and mitigation among school teachers, the paired't' test value was 57.729* at the level of P 0.05. Since P value is less than 0.05 (P value = 0.0001) difference in scores is statistically significant. Researcher conclude at 5% level of significance and 149 degrees of freedom that the above data gives sufficient evidence toconclude that teachers after receiving awareness program on disaster preparedness and mitigation is higher mean knowledge scores in post-test than in pre-test. Hence reject null hypothesis and accept research hypothesis.

Section IV: Association between knowledge scores and selected demographic variables of teachers in selected secondary schools

The describes that, association between level of knowledge on disaster preparedness and mitigation among school teachers with selected demographic variables. The study demographic variables were; age,gender, education qualification, year of experience, area of residence and previous knowledge on disaster. In order to compute the association between the level of knowledge score and demographic variables chi-square was applied and the value was observed with 5% significance level.

The chi-square value of the demographic variables, such as gender was $\chi = 6.347$ with a 1 degree of freedom showed significant and Previous knowledge regarding disaster chi value was $\chi = 40.676$ with degree of freedom 1 found statistically significant association with knowledge level and there were no other demographic variablesfound association with level of knowledge on disaster preparedness and mitigation.

8. DISCUSSION

The findings of the present study showed that, the post-test knowledge score was higher than the pre-test knowledge score range. The mean post-test knowledge score (22.74) also was higher than the mean pre-test knowledge score (16.09).

The study findings concluded that secondary schools' teachers had inadequate knowledge regarding disaster preparedness and mitigation. The awareness program had great potential for accelerating the awareness regarding disaster preparedness and mitigation.

9. CONCLUSION

The present study was conducted A study to assess the effectiveness of awareness programme on disaster preparedness and mitigation among teachers in selected Secondary schools of city. In order to achieve the objectives of the study pre-test & Post test design with quantitative evaluative approach was adopted. Subjects were selected under non probability, purposive sampling technique. The data were collected from 150 Teachers before and after administration of awareness programme.

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