

A SURVEY ON EVALUATION OF ALERTNESS ON DISASTER MANAGEMENT FOR SCHOOL-GOING STUDENTS IN GUJARAT

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ABSTRACT

Disasters are normally categorized into two categories: Rapid onset and slow onset disasters. Most of the disasters except for drought, insect infestation and epidemics are classified as rapid onset disasters as they strike with little or no warnings, i.e. giving no time to mitigate their effects. The traditional features of disasters show them to be continuous, unpredictable, and requiring rapid response, with unknown frequency, and thus hazardous. Maximum damage causing disasters involve earthquake, landslides, cyclones, tsunamis, tornados, fires and volcanic eruptions. Apart from affecting mortality and causing maximum health issues, disasters also cause huge range of displacement, epidemics and substantial financial losses to the communities. Though every disaster has its own features and necessities, different actions with the common measures under disaster management involve precautions, preventions, migrations, alertness, response and recovery for which gradual practice and alertness activities are required, specifically among students. The aim of this research is to measure the extent of alertness about disaster and their management among the school studying children.

It is an educational survey layout with a conceptual and traditional research theme accessing non-possibility purposive sampling protocol. Four of the private schools of major cities of Gujarat were selected. Survey procedure was worked among the 120 students aged between 12 to 16 years using a pre-tested semi structured questionnaire information sheet.

The result predicted that out of 120 students surveyed, 88.2 % (before intervention) and 97.2 % (after intervention) had information about disaster management.

These findings focus that the level of information is not yet satisfactory among the target and there is an extreme necessity of giving information to the school children. Disaster management can be mandatorily involved in academic syllabus of all the students. Effective, meaningful teaching and alertness programmes are to be maintained in timely manner.

KEYWORDS: *Disaster Management, Teaching Presentation, Alertness on Disaster, Natural Disasters, Preparedness for Disaster, Institutionalize Disaster Management*

INTRODUCTION

The simple definition presented by Oxford dictionary is “an unexpected event, such as a very bad accident, a flood, or a fire, that kills a lot of people or causes a lot of damage”. The research centres on events of disaster in European countries

have put forward a modified explanation, i.e. “a disaster is a situation or event which overwhelms local ability, and requires a request at national or international level for exterior support”.

Even the research centres on events of disaster have put forward that events can be classified as disaster if they kill more than 10 people / affect or displace more than 100 people / they are announced as a country emergency / the nation has to gain international support. Therefore, the broad aim of this research was to approach the level of alertness about disasters and their management between school-going children before and after an educational intervention aiming on disasters and their management.

Major disasters involve cyclones, tsunamis, fires, volcanic lava eruptions, earthquakes etc. Man-made disasters have been in the type of fires, accidents like industrial accidents, oil well spills, attack at borders, terrorist attacks, chemical or acid attacks, radiological or nuclear explosions. In a year, disasters take a toll of approximately about 75000 lives and affect around 280 million people world-wide. In the last two years, the casualties and damage attributable to disasters have increased drastically. The era 1990-99 has been announced as the international era for natural disaster decrease by UN.

Apart from causing deaths and causing severe health problems, disasters also contribute to a huge range of alteration, physical health misalignments, epidemics and cause financial losses to the societies. Therefore, there is always a requirement to have advanced multitasked access that includes all stake-holders from various areas of the society, for which it is important to have well-informed and alert individuals. School is the perfect place for educating on such themes.

Once any disaster takes place, an immediate response from different agencies and society is important, as this can help control urgencies, emergencies and help in reducing / avoiding the aftermaths and provide support to individuals to recover from the impact of disaster; authentically this can be labelled as disaster management.

Even though every urgency, emergency or disaster has its own features and requirements, the common strategies under disaster management involve precautions, preventions, migration, readiness, follow up to overcome from situation for which sequential teaching, preparing and alertness strategies are required specifically among the students. Even the Indian Government has given a special spot to update & upgrade information and inculcate skill among students in its 12th five-year plan. Schools have become more crucial institution for devising such strategic planning and implementation. Because, to get the surety, security and safety of school students is the foremost duty of any community / society, specifically in context of India, where more than 40 % of its population is below 16 years which spends majority of their time in schools.

Moreover, schools by themselves have also been directly affected by many disasters in the past, viz. the Bhuj earthquake (2001) and the Kashmir earthquake (2005) where more than hundreds of children lost their lives during schooling or school time. In 2006, many students and teachers got buried under the massive landslides in Indonesia. In 2004, explosion of a cooking gas cylinder lead to a fire breakout, due to which a huge number of children died in Tamil Nadu.

Additionally, schools are mainly converted into temporary shelters for the affected individuals or groups after disasters. At times, teachers with students are required to upgrade their duty as rescuers and supply important initial treatment and follow up counselling. All such components focus on the necessity to provide skill, support, and teaching concerning proper disaster follow-up in schools for students who can upgrade the societies as well, in later stage of their

lives through their educational information. Awareness on alertness is required for different types of disasters, their impact, features and their precise characteristics. The functions of National Organizations, United Nations and other foundational agencies in disaster management is also required to be taught in support to the common requirements of disaster management measures, providing special attention to communication, planning, coordination and hazard reduction.

The sole aim of this research was to approach the level of alertness about disaster and their management among the school children before and after an educational awareness program aiming on strategies of disaster management.

NEED FOR THE STUDY

The supporting sections of this research are related to different disasters in the past that includes earthquakes, fire, smog, huge building collapse, acid accidents, heavy rain, floods etc., thus prompting this research to be undertaken. Inculcating information about disasters to families, societies and specifically students is one of the most effective approaches for advancement of the society, which is indeed a preparation to address the challenges faced by disasters.

METHODOLOGY

It was an educational survey laid out with a conceptual and traditional research theme accessing non-possibility purposive sampling protocol, wherein the survey procedure was worked out in four private schools of major cities of Gujarat to 120 students aged between 12 to 16 years, utilizing a pre-tested, semi-structured, closed-type questionnaire information sheet which involved questions in three categories:-

- Information about the features, working and impact of various disasters.
- Information concerning the probability of managing steps and precautions.
- Various agencies functioning for disaster management.

Questions of all the three categories were mixed and were not in sequential order. To start with, permission was taken from the selected schools. 120 students (participant) of age group 12 to 16 years were involved as the research sample. Experts of concerned fields had drafted the tools of validity. The reliability coefficient came out to be 0.94 (94 %). Pilot study on 20 % of sample was conducted, and accordingly modifications which were necessary and required in questionnaires were made. After the listings were filled in the questionnaire by volunteers, a presentation with the explanation of disasters and how to manage such situations was explained. The same questionnaire was allotted again to the selected samples; so, the information was gathered as a pre- and post-educational awareness program, with the implementation of interventional information, both during the period of September 2019. The information gathered was evaluated with the support of EPI information software, which was then correlated in a tabular arrangement form.

RESULTS

Out of the total 120 sample, 53 were male and 67 were female who are in the age group of 12 to 16 years. The current research found that out of 120 students, 88.2 % (before intervention) and 97.2 % (after intervention) had information of disaster management. In further calculations, 57 % of the students before, and 79 % after, the intervention (studying) were able to recognize the strategies, features, ways and approach, to deal with disasters. The other essential observations are displayed in the form of a tabular section below.

Table 1: Information Aptitude of Selected Sample Before and After Intervention About Disaster Management

Variable		Before Intervention		After Intervention	
		N	%	N	%
Information Concern To Disaster Management	Yes	96	88	108	97
	No	14	14	2	1
Recognition Of Various Disasters (Fire, Flood, Earthquake, Volcano, etc)	All	52	48	76	68
	Some	58	54	34	30
	None	0	0	0	0
Be A Part Of Any Lecture On Disaster Management Previously	Yes	68	63	94	85
	No	42	39	16	13
Information Concern Stages Of Disaster Management Cycle	All	46	43	88	79
	Some	64	59	22	19
	None	0	0	0	0
Information about years of disaster management Act as 2005 and many more.	Yes	42	39	94	85
	No	68	63	16	13
Information concern to content of Urgency supply (all necessary supplies).	All	18	17	57	51
	Some	24	23	27	23
	None	68	63	26	23
Relevant Information Concern To Mechanism Of Earthquake	Yes	28	27	90	81
	No	82	75	20	17
Relevant Information Concern To Readiness For Earthquake	Yes	54	50	80	72
	No	56	52	30	26
Relevant Information About Indoor And Outdoor Safety Steps During Earthquake	Yes	72	67	94	85
	No	38	35	16	13
Relevant Information About Fire And Aftershocks Following Next To Earth Quake	Yes	30	29	24	21
	No	80	73	86	77
Information About Readiness For Floods	Yes	96	88	100	90
	No	14	14	10	8
Information Concern To Darn Break Or Heavy Rainfall To Floods	Yes	46	43	88	79
	No	64	59	22	19
Information About Movement To Higher Level As Important Safety Steps Taken During Floods	Yes	50	46	92	83
	No	60	56	18	15
Alertness About Heighted Area As Most Common Topographical Area Connected With Landslides	Yes	80	74	104	94
	No	30	28	6	4
Alertness About Heavy Rainfall Or Landmass Misuses Or Landslides	Yes	38	36	74	66
	No	72	66	36	32
Information Concern To Fire As A Disaster	Yes	76	70	96	86
	No	34	32	14	12
Alertness Concern To Utilization Of Steps / Stairs As Safety Method During Fire	Yes	40	37	90	82
	No	70	65	20	16
Information Concern To Unsafe Functions During Fire	Yes	76	70	82	73
	No	34	32	28	25
Relevant Information About Urgency Number For Fire In India (101)	Yes	64	59	88	79
	No	46	43	22	19
Relevant Information About Urgency Number For Disaster In India (108)	Yes	24	23	96	86
	No	86	79	16	12
Alertness Concern To The Authorize Person Of National Disaster Management Authority	Yes	10	10	82	74
	No	100	92	28	24
Relevant Information Concern To NDRF (National Disaster Response Force)	Yes	52	48	96	86
	No	58	54	14	12

DISCUSSIONS

The outcome displayed that out of 120 sample students, 88.2 % (before intervention) and 97.2 % (after intervention) had information regarding the concerned strategies of disaster management. In such similar research by scientists in the American Journal of Disaster Management, the stage of alertness was observed to be 86.87 %.

In some other observations of current study, 57 % of the students before, and 79 % after the intervention about disaster management were able to recognize the disasters by their features and approach way. A parallel study of same objectives and questions brings out the findings by 95 % in data; so, our current study found that the stage of alertness between school-going children was not satisfactory, and can be enhanced after educational intervention.

In our research, path of disaster cycle was known to 52 % before and 90 % after the intervention. This, when correlated with research by a fellow scientist Mathew, shows that 63 % of the participants were alert of the disaster cycle path.

It aims on the necessities of inculcating information of disaster cycle in school syllabus. In current research, we checked the awareness about all the content of supply kit. This focuses upon the requirement of producing information about urgency supply kit to students.

In current study, 38 % of overall alertness about mechanism of earthquake increased to 92 % after intervention. Whereas in a previous research by few scientists, around 94 % of students already knew about the process of earthquake. Safety strategies to be taken up during earthquake were known to 75.6 % before and 95.5 % after our current study.

In current study, information about causation of floods increased from 51.8 % to 90 % after the presentation. Whereas, according to a previous research by a group of scientists, 84 % of the participants knew about the reasons of heavy rains as well as floods. In other observations of our study, information about safety and preventions during heavy rains as well floods increased from 55.4 % to 93.5 % after intervention.

In current study, 44.5 % were relevantly aware about the correct reason of landslides before and 77.3 % after the intervention. Whereas in previous research by few scientists, around 47 % of students were familiar with the reasons of landslide.

Concerning fire, in current research, 46.6 % were aware about fire fighting strategies before, and 92.8 % after the program intervention. However, again a group of scientists in related research observed that 75.5 % sample students were educated in fire safety with 41.93 % students being able to operate fire extinguisher as well.

In current study, urgency number for disaster was known to 31.8 % before and 97.3 % after intervention, with only 62 % of the overall audience being alert of national disaster follow-up force and nearly 20 % knew about its responsibility as a person currently. These observations bring out the interpretation that maximum is required to be done to enrich the students' information concerning different strategies of disaster causation and their management at all phases.

CONCLUSIONS

These findings focus that the level of information is not yet satisfactory and there is a severe necessity of providing or allotting information to the school children. They are the strong components who can evaluate and implement the data to the wider area of societies. They are the social force who can support at situations and decrease the risk of disasters. Disaster management can be mandatorily involved in academic syllabus of all the students. Efficient, effective, meaningful

teaching and alertness programmes are to be gradually managed. Henceforth, there is a need to create awareness in the future generation, promising a path to uphold mankind in their stage of upgraded sectors or areas.

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