



## Study on Awareness of Disaster Management among School Teachers

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### Abstract

The history of disasters of affecting the man is rightly started from the history of mankind as it is not new to the human. The school going students spend most of the time in school. Teachers are expected to have equipped to face the challenges of disasters in school. The study explores the awareness of school teachers on disaster management. The study conducted on government and private school teachers of Malappuram district in Kerala state. The sample selected for the study is a total number of 114 school teachers which have been selected from government and Private schools through a stratified random sampling. The tool used for the study is School Teachers Disaster Management Awareness Inventory developed by the researcher. The tool is a 'YES' or 'NO' question Inventory which consisted 25 questions from five dimensions. The statistical techniques used for analysing the data are mean, standard deviation and t-test. The result showed school teachers are not well aware about disaster management. The result also showed that there is difference in disaster management awareness based on gender and level of classes teaching. It is also revealed that no difference is found based on type of management and syllabus of school and years of teaching experience. The study recommends ensuring needed provisions to enhance the awareness of disaster management among school teachers.

*Key words: Disaster Management, Disaster preparedness and mitigation, School Teachers*

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### **Introduction**

Human being is affected by various disasters rightly from the origin of mankind. Disasters can be generally categorised as natural and human made disasters. Natural disasters are earthquake, hailstorm, cyclone, landslide, cloud bursts, flood, soil erosion and snow avalanche etc. while human-made disasters are fire, road, air, rail accidents and disasters due to chemicals or nuclear pollutions etc. United Nations Office for disaster reduction defines a disaster as a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of human, material, economic and environmental losses and impacts. It is multi-

disciplinary process as it includes the organization, planning and application of measures preparing for, responding to and recovering from disasters. Disaster risk management is the application of disaster risk reduction policies and strategies to prevent new disaster risk reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses (UNISDR 2016) There are generally four important phases for disaster management which are mitigation, preparedness, response and recovery. The approaches to disaster management can be classified as prospective, corrective, compensatory, community-based and local or indigenous approach to disaster risk management.

The unique geo-climatic conditions of India are traditionally vulnerable to natural calamities and disasters. The major natural disasters in India are floods, earthquakes, droughts, cyclones, and landslides etc. It is estimated that in India out of 35 states and union territories, 27 of them are prone to multi hazards. India's 58.6 per cent of the landmass is vulnerable to earthquakes with varying intensity and more than 40 million hectares which is almost 12 % of Indian land are susceptible to floods and river erosion. It is estimated that 7,516 km long in coastal areas that is almost close to 5,700 km is vulnerable to environmental hazardous such as tsunamis and cyclones and almost 68 % of the Indian farming area is prone to drought while the hilly areas are at highly susceptible to landslides and avalanches (Disaster Management in India 2011).

The policies regarding the issues of disaster management is pivotal in the development of a country as it is responsible for ensuring the life and properties of its natives. The Government of India recently have taken initiatives to bring a paradigm shift in the approach to disaster management by implementing needed frame work to manage the disasters. The new approach highlighted that mitigation should be key drive in disaster management process as the national growth and development cannot be sustainable unless the development process integrates with mitigation. The new policy on disaster management has been framed from the concept that investment in mitigation is pivotal based on cost effectiveness than the expenditure on relief and rehabilitation process.

### **Rationale for the study**

The awareness and the skill of teachers to practice disaster management activities are highly important in relation to ensure the safety and security of school students. The children attending the school (age-group of 6 to 17 years) spend about 30% of their time in schools in most of the countries. Student's involvement in sports and other extracurricular activities in school causes to greater risk of injuries and medical emergencies (Sapien & Allen 2001). It is gauged that more than 2.6 million schoolchildren across the world are prone to sports and other recreation-related injuries annually. The school going children are prone to many disasters in India in many though the intensity varies according to nature and type of calamities and disasters in relation to certain geographical areas. The scenario necessitates that

teachers must be aware and skilled to assume the responsibility for competently managing the risk of disasters in school whenever the need arises.

### **Review of related studies**

Tuladhar, Yatabe, Dahal & Bhandary (2015) found that teachers do not have proper knowledge about disasters management and mitigation strategies among teachers of Nepal. It is showed that 67% of teachers opined that disaster risk perception is to an extant unexpected and unrealistic. 25% of teachers in school think disaster risk perception is not an important task for disaster management strategies. It is shown that teachers are not capable to link up the elements of risk reduction strategies in school system with importance of disaster management issues. It is also reported that there is statistically significant gender difference in dimensions of disaster awareness, disaster knowledge, disaster risk perception and disaster readiness. The result also showed that there is no significant difference in disaster awareness based on the age.

Ganpatrao (2014) found that only 7.22% teachers have good knowledge regarding disaster management while 82.96% have average knowledge and 4.26% poor knowledge. It is also showed that increase in teaching does not influence the knowledge of disaster management. It was revealed that age and previous training in disaster management and First Aid influence the knowledge regarding disaster management. It also showed that there is significant association with gender among teachers as females are comparatively more knowledgeable than males.

Vijaya (2014) found that the awareness about disaster management among teachers of higher education is not satisfactory as it needs improvement in knowledge and practice. The result also showed that there is no significant difference among the male and female teachers in the awareness disaster management.

Sharma, Mallaiyah, Kadalur & Verma, (2016) found that 46.9% teachers have average knowledge regarding disaster management and 60.6% of teachers have a positive attitude towards emergency management of dental trauma care. There is significant difference in the attitude of school teachers based on term of service and exposure to traumatic dental injury in school while no significant difference was found in knowledge.

Al-Zaidi & Al-asmari (2017) found that 23.5% of teachers considered Dental trauma as part of health education curriculum while 76.5% was not aware about it among school teachers. It is also found that the awareness of dental trauma level of female teachers is higher than the males. It is also found that 32.4% of the teachers have experience of tooth avulsion at the school and there is no significant difference among male and female school teachers.

Jyoti & Dahiya (2015) found that there is no statistically significant difference in awareness regarding disaster management among male and female colleges teachers of teachers of Tosham Hills though the female teachers got lesser scores in the awareness of disaster management. It also found that there is no satisfactory level of awareness on the disaster management among the college teachers.

Aseel Wahid (2012) found that there is significant difference in the awareness of disaster management among B.Ed trainees based on gender and locale as the male B.Ed trainees have higher level of awareness of disaster management than female B.Ed students. It is also found that there is no significant difference in awareness of disaster management among B.Ed trainees from arts and science subjects.

Chandukutty, Peedikayil, Premkumar, Narasimhan, & Jose (2017) found that knowledge of emergency management of dental trauma among the school teachers was significantly very low level. It is revealed that 90.1% school teachers showed awareness of dental traumatic accidents regarding the upper front teeth while only 23.4% expressed correctly regarding management of traumatic tooth fracture. It is also found that 46.5% of teachers have adequate knowledge about the re-implantation of avulsed permanent teeth and only 14.2% teachers showed correct knowledge regarding setting up storage medium for avulsed teeth.

### **Objectives of the study**

1. To find out the difference in awareness of disaster management among male and female school teachers
2. To find out the difference in awareness of disaster management among school teachers from state and CBSE school syllabus
3. To find out the difference in awareness of disaster management among government and private school teachers
4. To find out the difference in awareness of disaster management among high school and primary school teachers
5. To find out the difference in awareness of disaster management among school teachers with more than 10 years of work experience and lesser than 10 years of work experience

### **Hypothesis**

1. There will not be significant difference in awareness of disaster management among male and female school teachers
2. There will not be significant difference in awareness of disaster management among school teachers from state and CBSE school syllabus
3. There will not be significant difference in awareness of disaster management among government and private school teachers
4. There will not be significant difference in awareness of disaster management among high school and primary school teachers
5. There will not be significant difference in awareness of disaster management among school teachers with more than 10 years of work experience and lesser than 10 years of work experience

### **Methodology**

The study was conducted through a survey method. The population of the study is primary and secondary school teachers of Malappuram District. The sample selected for the study is a total number of 114 school teachers which have been selected from government and Private schools through a stratified random sampling. The tool used for the study is School Teachers Disaster Management Awareness

Inventory developed by the researcher. The tool is a ‘YES’ or ‘NO’ question Inventory which consisted 25 questions from five dimensions i.e. General Disaster Management Awareness, Mitigation, Preparedness, First Aid and Governmental policies and programmes on disaster management. The range of the score is 0-25 as each YES and NO gets 1 and 0 respectively in positive questions and vice versa in negative questions. The statistical techniques used for analysing the data are mean, standard deviation and t-test.

**Analysis and Discussion**

**Table-1**  
**Comparison of awareness of disaster management among male and female school teachers**

Group	N	Mean	Standard Deviation	T-value	table value	Level of significance
Male	53	14.28	3.96	2.21	1.96	Significant at 0.05
Female	61	12.55	4.34			

Table-1 shows that the mean and standard deviation awareness of disaster management among male and female school teachers are 14.28, 3.96 and 12.55, 4.34 respectively. The calculated t-value is 2.21 which is greater than the table value at 0.05 level. There is significant difference in awareness of disaster management among male and female school teachers as male school teachers have higher level of awareness of disaster management than their female counterpart. Hence the null hypothesis which stated there is no significant difference in awareness of disaster management among male and female school teachers is rejected.

**Table-2**  
**Comparison of awareness of disaster management among government and private school teachers**

Group	N	Mean	Standard Deviation	T-value	table value	Level of significance
Government school teachers	54	13.67	3.98	1.03	1.96	Not significant
Private school teachers	60	12.93	3.67			

Table-2 shows that the mean and standard deviation awareness of disaster management among government and private school teachers are 13.67, 3.98 and 12.93, 3.67 respectively. The calculated t-value is 1.03 which is lesser than the table value at 0.05 level. There is no significant difference in awareness of disaster management among government and private school teachers. Hence the null hypothesis which stated there is no significant difference in awareness of disaster management among male and female school teachers is accepted.

**Table-3**  
**Comparison of awareness of disaster management among teachers from state and CBSE schools**

Group	N	Mean	Standard Deviation	T-value	table value	Level of significance
State school teachers	65	12.72	4.29	0.86	1.96	Not significant
CBSE school teachers	49	12.05	3.31			

Table-3 shows that the mean and standard deviation awareness of disaster management among state and CBSE school teachers are 12.72, 4.29 and 12.05, 3.31 respectively. The calculated t-value is 0.86 which is lesser than the table value at 0.05 level. There is no significant difference in awareness of disaster management among state and CBSE school teachers. Hence the null hypothesis which stated there is no significant difference in awareness of disaster management among state and CBSE school teachers is accepted.

**Table-4**  
**Comparison of awareness of disaster management among High School and Primary school teachers**

Group	N	Mean	Standard Deviation	T-value	table value	Level of significance
High School teachers	52	13.43	3.62	2.67	2.56	Significant at 0.01
Primary school teachers	62	11.74	3.15			

Table-4 shows that the mean and standard deviation awareness of disaster management among high school and primary school teachers are 13.43, 3.62 and 11.74, 3.15 respectively. The calculated t-value is 2.67 which is greater than the table value at 0.01 level. There is significant difference in awareness of disaster management among high school and primary school teachers as high school teachers have higher level of awareness of disaster management than primary school teachers. Hence the null hypothesis which stated there is no significant difference in awareness of disaster management among school and primary school teachers is rejected.

**Table-5**  
**Comparison of awareness of disaster management among teachers with more than and lesser than 10 years of work experience**

Group	N	Mean	Standard Deviation	T-value	table value	Level of significance
School teachers with more than 10 years of work experience	44	13.43	4.02	1.74	1.96	Not significant
School teachers with lesser than 10 years of work experience	70	12.18	3.51			

Table-5 shows that the mean and standard deviation awareness of disaster management among school teachers with more than 10 years of work experience and lesser than 10 years of work experience are 13.43, 4.02 and 12.18, 3.51 respectively. The calculated t-value is 1.74 which is lesser than the table value at 0.05 level. There is no significant difference in awareness of disaster management among school teachers with more than 10 years of work experience and lesser than 10 years of work experience. Hence the null hypothesis which stated there is no significant difference in awareness of disaster management among school teachers with more than 10 years of work experience and lesser than 10 years of work experience is accepted.

**Discussion**

The awareness of disaster management among school teachers is not satisfactory as teachers are not properly aware of many dimensions of disaster management. Most of the teachers are not aware of governmental policies and programmes on disaster management in school. The awareness level is low in disaster preparedness and mitigation or risk reduction. Most of the teacher didn't read the school safety manual prepared by national and state level disaster management authorities. Many teachers didn't visit the website of state disaster management authority which whenever it is necessary even a single time. There is a satisfactory awareness only in First Aid in schools. The finding that teachers are not well aware about disaster management is consistent with the studies of.Vijaya (2014), Ganpatrao(2015), Chandukutty et.al. (2017), Sharmaet.al. ( 2016), Tuladhar et.al. (2015), Al-Zaidi & Al-asmari (2017). The finding regarding the gender difference in awareness of disaster management in school teachers as male teachers have higher level of awareness of disaster management is confirmed by the studies of Aseel (2012), Tuladhar et. al (2015). The finding that no difference exist in awareness of disaster management based on the type of school is confirmed by sharma et.al.(2016). The awareness of disaster management among school teachers is not adequate and satisfactory as it need acutely for further studies.

**Conclusion**

The inadequacy in attaining proper awareness and knowledge of disaster management of school teachers severely affect the safety and security conditions of school students as students spend most of the time in school. Many schools and school going children in India are prone to natural calamities and disasters. Teachers

need to update their knowledge regarding disaster management both in disaster preparedness and risk reduction by linking with the latest guidelines given by national and state level disaster management bodies. It is also pertinent to consider the teacher education curriculum to frame by giving proper importance to disaster management and make it mandatory in graduation studies. If teachers are well aware of disaster management, it can be greatly benefited to school and society regarding safety and security of students.

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