

Full Length Research Paper

# Exploring the Awareness of Disaster Risk Management of College-Level Students

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**Abstract**

*This article emphasizes the awareness of disaster risk management. The word "disaster" usually refers to a natural one, however, man-made disasters can occasionally be even more destructive. Whether they are man-made or natural, disasters affect everyone's lives equally and without distinction between the rich and the poor. To find out the level of awareness of disaster risk management. The population for the present study is college students studying at the undergraduate level in the Chennai district. there is no significant difference between rural and urban College Students in their Recovery, prevention, Response, Environmental Stability, and Disaster Risk Management, but there is a significant difference between rural and urban College Students in their Preparedness. While comparing the mean scores of rural(mean=12.41) and urban(mean=11.20) College Students, the rural College Students are better in their Preparedness. The unfortunate fighters, lacking both a weapon and a leader, merely bowed before the enormous foe. Disasters, whether man-made or natural, are commonplace in many areas, including our nation.*

**Keywords:** Exploring, awareness, Disaster Risk Management, College Students, etc.

**Introduction**

The most powerful force of our time, disaster, is spreading its colonies to every continent and nation on Earth. Every news outlet and every news story highlights the harrowing faces of those affected by cyclones, earthquakes, floods, tidal waves, building collisions, etc. Only the disaster's location, kind, and impact have changed. The word "disaster" is often used to describe an abrupt shift in circumstances that affects people's ability to go about their daily lives. Both man-made and natural disasters can occur. The word "disaster" usually refers to a natural one, however, man-made disasters can occasionally be even more destructive. Whether they are man-made or natural, disasters affect everyone's lives equally and without distinction between the rich and the poor.

In the year 2015, South India floods resulted from heavy rainfall generated by the annual northeast monsoon in November–December 2015. They affected the Coromandel Coast region of the South Indian states of Tamil Nadu and Andhra Pradesh More than 500 people were killed and over 1.8 million (18 lakh) people were displaced. With estimates of damages and losses ranging from nearly ₹200 billion (US\$2 billion) to over ₹1 trillion (US\$12 billion), the floods were the costliest to have occurred in 2015 and were among the costliest natural disasters of the year.

Though the unusually heavy rainfall in southern India during the winter of 2015 has been attributed to the 2014–16 El Niño event, in July 2018 the Comptroller and Auditor General of India (CAG) categorised the flooding across Tamil Nadu as a "man-made disaster", and held the Government of Tamil Nadu responsible for the scale of the catastrophe, which the latter had termed a *natural disaster*. From October to December each year, a very large area of south India, including Tamil Nadu, the coastal regions of the Andhra Pradesh and the union territory of Puducherry, receives up to 60 percent of its annual rainfall from the northeast monsoon (or winter monsoon). The northeast monsoon is the result of the annual gradual retreat of monsoonal rains from northeastern India. Unlike during the regular monsoon, rainfall during the northeast monsoon is sporadic, but typically far exceeds the amount produced by the regular monsoon by up to 90 percent. This excessive rainfall can be exacerbated by an El Niño of the order of the magnitude which has since been evaluated every year, such as in 2015.

**Significance of the Study**

The number of disasters over the world is increasing year by year. These disasters include natural calamities as well as man-made conflicts like fire, accidents, communicable diseases, wars, terrorist attacks, chemical abuses etc. As per the Red Cross report (2006) over the last decade an average of 242 million people per year were killed and affected by disasters and conflicts. Hence, it is essential to impart disaster management skills to public in general and specially to the younger generation all over the world. The international frameworks for disaster risk reduction i.e. the Hyogo Framework (2005 – 2015) and Sendai Framework (2015-30) have emphasized the importance of knowledge for building a culture of preparedness and safety. While Hyogo framework emphasized on the use of knowledge, innovations, and education, the Sendai framework (2015-30), which is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters. It is the outcome of stakeholder consultations initiated in March 2012 and inter-governmental negotiations held from

July 2014 to March 2015, which were supported by the UNDRR upon the request of the UN General Assembly. It stressed upon the coordination between various stakeholders including government, the private sector, and other partners for disaster risk reduction. The Sendai Framework for Disaster Risk Reduction 2015-30 highlighted the importance of knowledge in disaster risk reduction. One of the prime priority areas of Sendai Framework was to strengthen the understanding of disaster risk so as to develop effective policies and programs. In order to achieve this goal, the Sendai Framework stressed upon building the knowledge of government officials at all levels, civil society, communities, and volunteers.

### Title of the study

The problem of the study is stated as “*Exploring The Awareness Of Disaster Risk Management Of College-Level Students*”

### Operational Definitions

The investigation adopts the following definitions for the term used in this study.

#### Awareness

It means having knowledge or realization of something that affect the surrounding environment. It is a state of being conscious. Here investigator wishes to measure the degree of knowledge and its harmful effects of global warming.

#### Disaster Risk Management

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.

#### College-level students

A college-level student is a person who is enrolled in a college or university and is pursuing higher education.

### Objectives of the study

1. To find out the level of awareness of disaster risk management.
2. To find out the preparedness, recovery, prevention, response, and environmental stability of disaster risk management such as demographic variables.

### Hypothesis of the study

1. There is no significant difference between male and female college students in terms of preparedness, recovery, prevention, response, and environmental stability of disaster risk management.
2. There is no significant difference between Arts and Science background students in their Preparedness, Recovery, prevention, response, and Environmental Stability of Disaster Risk Management.
3. There is no significant difference between rural and urban students in their Preparedness, Recovery, prevention, Response, and Environmental Stability of Disaster Risk Management.
4. There is no significant difference among boys, girls, and co-education colleges in their Preparedness, Recovery, prevention, Response, and Environmental Stability of Disaster Risk Management.

### Population For the Study

The population for the present study is college students studying at the undergraduate level in the Chennai district.

### Sample for the Study

The investigator used a simple random technique. Ten colleges in the Chennai district were randomly selected. College students were randomly selected from the above colleges. In total, the sample consisted of 200 college students.

### Sample Distribution

**Table 1.** Standard-wise distribution of the sample

Discipline	No. of Students	Percentage
Arts	100	50%
Science	100	50%
Total	200	100%

The above table shows that 50% of the students are from Arts and 50% of them are from science.

**Table 2.** Gender-wise distribution of the sample

Gender	No. of Students	Percentage
Male	112	56%
Female	88	44%
Total	200	100

The above table shows that there are 56% of male and 44% of female College Students are in the sample.

**Table- 3.** Nature of college-wise distribution of the sample

Nature of College	No. of Students	Percentage
<b>Boys</b>	20	10%
<b>Girls</b>	1	0.5%
<b>Co-education</b>	179	89.5%
<b>Total</b>	<b>200</b>	<b>100</b>

The above table shows that 10% of the College Students are from boys' colleges 0.5% of them are from girls' colleges and 89.5% of them are from co-education colleges.

**Table- 4.** Location of the college-wise distribution of the sample

Locality of College	No. of Students	Percentage
<b>Rural</b>	160	80%
<b>Urban</b>	40	20%
<b>Total</b>	<b>200</b>	<b>100</b>

The above table shows that there are 80% of the College Students are from rural and 20% of them are from urban colleges.

### Tool used in the study

Tools are the instruments employed by the investigator to gather new facts or to explore new fields. There is a large number of tools available for data collection in research. By keeping various objectives and purposes of the study in mind, the investigator prepared the following tools for the data collection.

In the present study, the investigator used the following tools.

#### I. Disaster Risk Management Scale - Adapted to the tool developed by the investigator (2015).

##### Personal Data Sheet

Here the students are required to give background variables such as name of the student, class, gender, nature of the college, and location of the college.

##### Establishing Content Validity of the Tool

The investigator has established content validity for the tool. The tool has been submitted to a panel of experts in disaster risk management. All the experts have agreed with the statements in the tool. Thus, the content validity of the tool has been established.

##### Establishing the Reliability of the Tool

To establish the reliability of the tool, the investigator followed the test-retest method. The investigator administered the tool to the 200 College Students who were the members of the sample. After a gap of 10 days, the investigator again administered the tool to the same students. The scores obtained from the two tests were analyzed and found to be consistent with each other. The reliability of the tool was found to be 0.731. Thus, the reliability of the tool was established.

##### Administration of the Tool

The investigator, after the preparation of the tools, sought the permission of the heads of the colleges. With the permission of the heads of the College, the investigator himself administered the tools to the randomly selected students. The responses were scored with the help of the author's manual.

##### Statistical Techniques Used

Statistical techniques are necessary for understanding the general trends and group characteristics of various characters. The investigator has used the following statistics for the analysis of data.

##### Null Hypothesis 1

There is no significant difference between male and female college students in terms of preparedness, recovery, prevention, response, and environmental stability of disaster risk management.

**Table 5.** Difference between male and female college students in their disaster risk management and its dimensions

S. No.	Dimensions of Disaster Risk Management	Male (N = 112)		Female (N = 88)		Calculated 't' value	Remark at 5%
		Mean	S.D	Mean	S.D		
1.	Preparedness	12.23	2.238	12.08	2.080	.498	NS
2.	Recovery	7.93	2.245	7.38	1.632	2.14	S
3.	Prevention	6.09	1.938	5.38	1.711	2.76	S
4.	Response	13.02	2.344	12.86	2.209	.477	NS
5.	Environmental Stability	8.38	2.032	8.41	1.644	-.131	NS
6.	<b>Disaster Risk Management (as a whole)</b>	<b>47.66</b>	<b>5.313</b>	<b>45.98</b>	<b>3.983</b>	<b>2.56</b>	<b>S</b>

(At a 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between male and female students in their Preparedness, Response, and Environmental Stability, but there is a significant difference between male and female students in their Recovery, prevention of Disaster Risk Management.

While comparing the mean scores of male (mean=7.93) and female (mean=7.34) College Students, the male College Students are better in their Recovery. While comparing the mean scores of male (mean=6.09) and female(mean=5.38) College Students, the male College Students are better in their Prevention. While comparing the mean scores of male (mean=47.66) and female(mean=45.98) College Students, the male College Students are better in their Disaster Risk Management.

**Null Hypothesis 2**

There is no significant difference between Arts and Science College Students in their Preparedness, Recovery, prevention, response, and Environmental Stability of Disaster Risk Management.

**Table 6.** Difference between arts and science college students in their disaster risk management and its dimensions

S. No.	Dimensions of Disaster Risk Management	ARTS (N = 100)		SCIENCE (N = 100)		Calculated 't' value	Remark at 5%
		Mean	S.D	Mean	S.D		
1.	Preparedness	12.08	2.277	12.25	2.057	-.554	NS
2.	Recovery	7.50	1.957	7.84	2.068	-1.19	NS
3.	Prevention	5.65	1.789	5.90	1.951	-.944	NS
4.	Response	13.10	2.130	12.80	2.425	.930	NS
5.	Environmental Stability	8.36	1.738	8.42	1.996	-.227	NS
6.	<b>Disaster Risk Management (as a whole)</b>	<b>46.69</b>	<b>4.980</b>	<b>47.15</b>	<b>4.700</b>	<b>-.672</b>	<b>NS</b>

(At a 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between Arts and Science students in their Preparedness, Recovery, Prevention, response, Environmental Stability of Disaster Risk Management.

**Null Hypothesis 3**

There is no significant difference between rural and urban students in their Preparedness, Recovery, prevention, Response, and Environmental Stability of Disaster Risk Management.

**Table 7.** Difference between rural and urban college students in their disaster risk management and its dimensions

S. No.	Dimensions of Disaster Risk Management	Rural (N = 160)		Urban (N = 40)		Calculated 't' value	Remark at 5%
		Mean	S.D	Mean	S.D		
1.	Preparedness	12.41	2.190	11.20	1.786	3.64	S
2.	Recovery	7.74	2.114	7.38	1.547	1.24	NS
3.	Prevention	5.84	1.925	5.50	1.633	1.14	NS
4.	Response	12.83	2.315	13.43	2.099	-1.56	NS
5.	Environmental Stability	8.34	1.933	8.57	1.583	-.788	NS
6.	<b>Disaster Risk Management (as a whole)</b>	<b>47.13</b>	<b>4.941</b>	<b>46.08</b>	<b>4.341</b>	<b>1.33</b>	<b>NS</b>

(At a 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between rural and urban College Students in their Recovery, prevention, Response, Environmental Stability, and Disaster Risk Management, but there is a significant difference between rural and urban College Students in their Preparedness. While comparing the mean scores of rural(mean=12.41) and urban(mean=11.20) College Students, the rural College Students are better in their Preparedness.

**Null Hypothesis 4**

There is no significant difference among boys, girls, and co-education in their Preparedness, Recovery, task – efficacy, Response, and Environmental Stability of Disaster Risk Management.

**Table – 8.** Difference among boys, girls, and co-education college students in their disaster risk management and its dimensions

S. No.	Dimensions of Disaster Risk Management	Source of variation	Sum of squares	Degrees of freedom	Variance estimate	Calculated 'F' value	Remarks at 5% level
1.	Preparedness	Between	12.612	2.00	6.306	1.349	NS
		With	920.943	197.00	4.675		
2.	Recovery	Between	2.153	2.00	1.076	.263	NS
		With	806.067	197.00	4.092		
3.	Prevention	Between	16.216	2.00	8.108	2.347	NS

4.	Response	With	680.659	197.00	3.455		
		Between	4.572	2.00	2.286		
5.	Environmental Stability	With	1030.928	197.00	5.233	.437	NS
		Between	1.455	2.00	.727	.207	NS
6.	Disaster Risk Management (as a whole)	With	692.125	197.00	3.513	1.190	NS
		Between	55.541	2.00	27.771		
		With	4597	197.00	23.336		

(At 5% level of significance, the table value of 'F' is 3.04)

It is inferred from the above table that there is no significant difference among boys, girls, and co-education students in their Preparedness, Recovery, task-efficacy, Response, Environmental Stability, and Disaster Risk Management.

### Results and findings

It is inferred from the table that there is no significant difference between male and female students in their Preparedness, Response, and Environmental Stability, but there is a significant difference between male and female students in their Recovery, prevention of Disaster Risk Management.

While comparing the mean scores of male (mean=7.93) and female(mean=7.34) College Students, the male College Students are better in their Recovery. While comparing the mean scores of male (mean=6.09) and female(mean=5.38) College Students, the male College Students are better in their Prevention. While comparing the mean scores of male (mean=47.66) and female(mean=45.98) College Students, the male College Students are better in their Disaster Risk Management.

It is inferred from the table that there is no significant difference between Arts and Science students in their Preparedness, Recovery, Prevention, response, Environmental Stability of Disaster Risk Management.

It is inferred from the above that there is no significant difference between rural and urban College Students in their Recovery, prevention, Response, Environmental Stability, and Disaster Risk Management, but there is a significant difference between rural and urban College Students in their Preparedness. While comparing the mean scores of rural(mean=12.41) and urban(mean=11.20) College Students, the rural College Students are better in their Preparedness.

It is inferred from the above that there is no significant difference among boys, girls, and co-education students in their Preparedness, Recovery, task-efficacy, Response, Environmental Stability, and Disaster Risk Management.

### Conclusion

The Disasters are progressively taking over the planet in all of its terrifying manifestations, varying from continent to continent and nation to nation. The unfortunate fighters, lacking both a weapon and a leader, merely bowed before the enormous foe. Disasters, whether man-made or natural, are commonplace in many areas, including our nation.

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