

Knowledge and Preparedness of Earthquake among Management Graduates in Kathmandu District of Nepal

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Abstract

Introduction: Earthquakes are one of the most deadly and unexpected natural disasters, resulting in thousands of lives and huge economic loss. Nepal is a country that experiences earthquakes on a regular basis. Previous study has shown that increasing public awareness and preparedness for future earthquakes is crucial for minimizing the number of deaths caused and property loss. To reduce the damage caused by such earthquakes, it is vital to analyze people's understanding and readiness.

Purpose: The main aim of the study is to identify the Knowledge and Preparedness of Earthquake and the different between knowledge of earthquake and preparedness of earthquake among graduates in Kathmandu district of Nepal.

Design/methodology/approach: The research was carried out using a descriptive design. The research involved 144 management faculty students at the bachelor's and master's level. The core data was collected via an online KoBoToolbox form. The data was analyzed using the mean and paired sample t-test. The Cronbach's Alpha value was used to assess the data's reliability.

Findings: Students are well knowledgeable in earthquakes, including how to prepare and what to do in case of an earthquake. Yet, their preparations are inadequate in comparison to their knowledge. There was a significant difference between preparedness ($M=3.5357$, $SD=0.489$) and knowledge ($M=3.8194$, $SD=0.4548$), because $p=0.000$ which is less than .05 significant level.

Originality/value: The study found that management students have a good understanding of earthquakes, but they are not well prepared for the earthquake.

Keywords: earthquake, knowledge, management, preparedness, students

Introduction

Earthquakes are one of the most destructive and unexpected natural catastrophes, causing massive deaths and significant economic damage (Ao, et al., 2021). An earthquake is the consequence of the ground shaking, rolling, and vibrating as a result of the abrupt release of energy trapped under the Earth's surface (Agarwal, 2020). Every year, about 10,000 individuals are killed as a result of these dangers (Yön, Sayın, & Onat, 2017). People are killed and injured due to a variety of factors, including the growth of populations, poverty, building collapse, poor construction, collateral hazards such as landslides or tsunamis, demographic data, people's behavior during the earthquake, and the effectiveness of emergency response (Becker, Paton, Johnston, & Ronan, 2012).

Nepal is a country that suffers from frequent earthquakes. Nepal Earthquakes in April 2015 resulted in a massive loss of lives and property in the country, with approximately 9,000 people killed, 22,300 injured, 8 million people directly affected (roughly a third of the country's population), over half a million houses collapsed, and a drop in GDP of over 1.5 percentage points (Shrestha, Bajracharya, Bajracharya, Shrestha, & Maharjan, 2016). Nepal's present infrastructure, communication networks, and medical sector have all been assessed to be insufficiently equipped for earthquakes in several studies. In the case of an earthquake, this lack of preparation poses a serious hazard to life and property (Malla, Kayastha, Sharma, & Ojha, 2015).

Previous research has shown that raising public knowledge and readiness for future earthquakes is critical to reducing lives and property damage (Mano, Technion, & Rapaport, 2019). Preparedness plays a critical role in ensuring seismic safety and, as a result, aids in the advancement of peace, growth, and prosperity (Uprety & Poudel, 2012). Preparedness actions include those that aim to reduce the number of persons killed or injured, coordinate the temporary transfer of people and property from a dangerous site, and permit fast and effective rescue, relief, and rehabilitation (Sinha, Pal, Kasar, Tiwari, & Sharma, 2014). Continuous readiness saves lives, minimizes human pain and loss, and decreases property devastation and economic losses. Search and rescue efforts, emergency medical assistance is the most critical and immediate post-disaster necessity. As a result, students must be knowledgeable about disaster preparedness and mitigation in order to inform their family members.

Research Objective

To identify the Knowledge and Preparedness of Earthquake among Graduates in Kathmandu valley of Nepal

Research Hypothesis

H₁: There is no significant different between knowledge of earthquake and preparedness of earthquake among graduates in Kathmandu valley.

Methods & Materials

This descriptive cross-sectional study was carried out in Kathmandu District of Nepal, where data was gathered between March 2, 2022 and March 16, 2022. Faculty of Management students from the Shanker Dev campus, Platinum Management College, Kantipur International College and Mid Valley international college were informed about the study's objective and processes. In 198, 144 students who volunteered to participate in the study. The structured survey questionnaire with a five-point Likert scale was used in the study. The students were given a self-administered online KoBoToolbox-based survey questionnaire through email and Microsoft team. Using SPSS(20 versions), the data was analyzed using frequency, percentage, mean, standard deviation, and the Paired Samples Test. Cronbach's Alpha was employed by the researchers to examine the reliability of data since it is one of the most significant techniques for determining the internal consistency of data (Mahat, 2021). The Cronbach's alpha value of the data was 0.769 and Standardized Item Alpha 0.776, indicating that the data was of acceptable, quality (Gliem & Gliem, 2003).

Results

Table 1: Demographic & General Information

Demographic						
Particulars			Frequency	Percent		
Gender	Male		62	43.1		
	Female		82	56.9		
	Total		144	100.0		
Education	Bachelor		86	59.7		
	Master		58	40.3		
	Total		144	100.0		
Descriptive Statistics						
Age of the Respondents	N	Minimum	Maximum	Mean	Std. Deviation	
	144	18.00	46.00	23.1389	3.66349	
General Information						
SN	Particular	No	Light	Secondary	Moderate	Very strong
1	The strongest earthquake intensity you have experienced	2(1.4%)	9(6.3%)	5(3.5%)	44(30.6%)	84(58.3%)
2	Casualties in the last earthquake	No 33(22.9%)	Low 33(22.9%)	Secondary 18(12.5%)	Moderate 36(25%)	Very high 24(16.7%)
3	Property loss due to the last earthquake	91(63.2%)	27(18.8%)	3(2.1%)	16(11.1%)	7(4.9%)
4	Residential structure type	Stone-wood 20(13.9%)	Brick-wood 19(13.2%)	Brick-concrete 88(61.1%)	Steel – concrete 9(6.3%)	other 8(5.6%)

Source: Field Survey, 2022

The study included 144 participants, where 62 (43.1 %) were male and 89 (56.9 %) were female. In terms of education level, 86 (59.7 %) of participants are from the Bachelor level, while 58 (40.3 %) are from the Master level. The participants ranged in age from 18 to 46 years. The average participant's age was 23.1389 years.

Respondents were asked questioned about earthquake intensity, the majority of respondents (84.3%) said they had experienced a powerful earthquake, 44.6% said they had experienced a moderate earthquake, 9.3% said they had experienced a light earthquake, and just 2% said they had not experienced an earthquake. Likewise, Respondents were asked about earthquake causalities, 25 % mentioned they have moderate causalities, 22.9 % answered they don't have causalities, 16.7 % expressed they have extremely high causalities, and just 12.5% said secondary causalities. In response to the question about property loss due to the last earthquake, 63.2% respondents revealed they had no property loss, while 18.8% assumed they had light loss of property, 11.1% alleged they had moderate loss of property, and 4.9% response they had very high loss of property. Only 2.1% respondents declared they had secondary loss of property. Respondents were asked about the different types of houses they live in on a regular basis, the majority 61.1% of them said they live in a brick-concrete house, 20 % said they live in a stone wood house, 19 % said they live in a brick wood house, 9 % said they live in a steel concrete house, and 8 % said they live in a mud-brick house, and so on.

Knowledge of earthquake

Table 2: Knowledge in Earthquake

SN	Particular	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Nepal is located in the earthquake zone	3(2.1%)	6(4.2%)	39(27.1%)	75(52.1%)	21(14.6%)
2	Earthquake intensity is measured by animal sensation and buildings trembling.	20(13.9%)	29(20.1%)	31(21.5%)	54(37.5%)	10(6.9%)
3	An earthquake damage houses, streets, water supply and electricity	2(1.4%)	1(0.7%)	1(0.7%)	77(53.5%)	63(43.8%)
4	An earthquake can cause injuries or kill human's	3(2.1%)	4(2.8%)	4(2.8%)	52(36.1%)	81(56.3%)
5	Earthquake occurrence can be predictable	16(11.1%)	46(31.9%)	47(32.6%)	29(20.1%)	6(4.2%)
6	Earthquakes damage distinct effects toward human lives and assets	3(2.1%)	1(0.7%)	2(1.4%)	70(48.6%)	68(47.2%)
7	Individual can minimized Hazard of earthquake	11(7.6%)	27(18.8%)	21(14.6%)	64(44.4%)	21(14.6%)
8	Planning and preparedness for earthquake is essential for reduction of risk/damage	1(0.7%)	1(0.7%)	1(0.7%)	66(45.8%)	75(52.1%)

Source: Field Survey, 2022

Data was obtained from respondents by questioning that Nepal was in an earthquake zone. The data showed that the majority of respondents 52.1 % agreed with the statement. Aside from that, 27.1 % of respondents were neutral, 14.6 % strongly agreed with the statement. Meanwhile, 4.2 % of respondents said they 'disagree,' with the statement only 2.1% replying on 'strongly disagree.' In aggregate, the vast majority of responders are aware that Nepal is in an earthquake zone.

When respondents were asked with the statement "Earthquake strength is judged by animal feeling and buildings trembling," 37.5 % responded Agree, while 21.5 % answered neutral. While 20.1 % percent of respondents disagreed with the statement, 13.9 % strongly disagreed with it, and just 6.9% strongly agreed with the statement. The majority of respondents were aware that animals can feel the magnitude of an earthquake.

In the statement, "an earthquake damages residences, streets, water supply, and power." from the data, the majority of respondents 53.5% agreed with the statement, while 43.8 % strongly agreed with the assertion. Aside from that, 0.7 % of respondents were neutral and disagreed with the statement, while 1.7 % strongly disagreed with the statement. The great majority of responders are aware that earthquakes cause damage to dwellings, streets, water supplies, and electricity.

Respondents were asked "An earthquake can cause injuries or kill humans". The majority of respondents 56.3% strongly agreed with the statement, according to the statistics. Aside from that, 36.1% of respondent's response agreed, while 2.8% responded responses neutral and disagreed. Meanwhile, 3.1% of respondents indicated 'strongly disagree,' with statement. The majority of respondents were aware that an earthquake can cause injuries or kill humans.

In the statement, "Earthquake occurrence can be predictable" According to the statistics, the majority of respondents 32.6% express their view in neutral, while 31.9% respondents disagreed with the assumption. Aside from that, 20.1% of respondents were agreed with the statement, while 11.1% strongly disagreed with the assertion, only 4.2% respondents strongly agreed. In total, majority of respondents did not express their view in "agree or disagree" with the statement regarding occurrence of earthquake can be predicted.

Data was gathered from respondents by inquiring Earthquakes damage distinct effects toward human lives and assets. From data, the majority of respondents 48.6% agreed with the statement. Aside from that, 47.2% were strongly agreed, 2.1% strongly disagreed with the statement. Meanwhile, 1.4% of those polled indicated 'neutral,' and only 0.7% respondents' disagree.' In total majority of respondents mention their view that earthquake damage distinct effect towards human lives and assets.

When respondents were asked "Individual can minimized Hazard of earthquake," 44.4% respondents agreed with the statement, followed by 18.8% respondents disagreed, 14.6% respondents responses strongly agreed and neutral. Although 7.6% of respondents strongly disagreed with the statement. In total majority of respondents replied that individual can minimized hazard of earthquake.

In the declaration, "Planning and preparedness for earthquake is essential for reduction of risk/damage" From the data, the majority of respondents 52.1% express their view that they strongly agreed with the declaration, while 45.8% respondents agreed with the assumption.

Aside from that, only 0.7% of respondents were disagreed and strongly disagreed with the statement. In total, majority of respondents believed that Planning and preparedness for earthquake is essential for reduction of risk/damage.

Preparedness for Earthquake

Table 3: Preparedness for Earthquake

SN	Particulars	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I have Jhatpat Jhola or Go to Bag in my residence for use immediately after an earthquake	14(9.7%)	34(23.6%)	22(15.3%)	59(41.0%)	15(10.4%)
2	I know the location of utility Water/Gas shut-off valves and Electric power shut-off switches?	3(2.1%)	10(6.9%)	7(4.9%)	73(50.7%)	51(35.4%)
3	I know how to operate the utility Water/Gas shut-off valves and Electric power shut-off switches	1(0.7%)	4(2.8%)	10(6.9%)	80(55.6%)	49(34%)
4	My cabinets (e.g. for dishes, food, supplies) securely fastened with latches?	5(3.5%)	29(20.1%)	30(20.8%)	63(43.8%)	17(11.8%)
5	In my residence (Tall furniture, mirrors, paintings, plants) securely fastened to the walls?	9(6.3%)	36(25%)	21(14.6%)	60(41.7%)	18(12.5%)
6	My family has develop earthquake plan (i.e. what to do during and after an earthquake)?	5(3.5%)	28(19.4%)	36(25%)	60(41.7%)	15(10.4%)
7	My house have "Emergency Exit Way/ Plan" on the building?	12(8.3%)	75(52.1%)	20(13.9%)	33(22.9%)	4(2.8%)
8	We (family) have plan to gather in open space if there is damage/loss of property and communication respectively during earthquake.	3(2.1%)	11(7.6%)	14(9.7%)	83(57.6%)	33(22.9%)
9	I know the location of a medical emergency center in my neighborhood?	1(0.7%)	8(5.6%)	6(4.2%)	90(62.5%)	39(27.1%)
10	I know the Emergency Communication Center (Police Station, Rescue Centre, and Ambulance) contact number?	1(0.7%)	7(4.9%)	11(7.6%)	85(59%)	40(27.8%)
11	I attentively listen to or watch radio or television messages about earthquake preparedness.	0	18(12.5%)	19(13.2%)	81(56.3%)	26(18.1%)
12	My household have earthquake insurance?	32(22.2%)	62(43.1%)	30(20.8%)	15(10.4%)	5(3.5%)
13	I attend meetings held by schools or civic organization for the purpose of establishing earthquake preparedness?	4(2.8%)	24(16.7%)	40(27.8%)	68(47.2%)	8(5.6%)
14	I vote on bills dealing with earthquake resistant buildings?	3(2.1%)	16(11.1%)	23(16%)	66(45.8%)	36(25%)

Source: Field Survey, 2022

Data was obtained from respondents by questioning that do you have the following goods on hand at your home (Jhatpat Jhola or Go to Bag) in case of an earthquake: Lengthy-lasting foods are those that have a long shelf life. Water purification pills, solar-powered emergency lighting, a first-aid kit, a blanket, and a working fire extinguisher. The data showed that the majority of respondents 41.0% agreed with the statement. Aside from that, 23.6% of respondent's response disagreed, 10.4% strongly agreed with the statement. Meanwhile, only 9.7% of respondents

express they 'strongly disagree,' with the statement. In aggregate, the majority of responders have Jhatpat Jhola/Go to in their house so to use in case of an earthquake.

When respondents were asked with the statement "Do you know the location of utility Water/Gas shut-off valves and Electric power shut-off switches?" in this statement, 50.7% responded Agree, while 35.4% answered strongly agreed. While 6.9% of respondents disagreed with the statement, followed by 4.9% strongly disagreed with it, and 2.1% stated in neutral. The majority of respondents know the location of utility Water/Gas shut-off valves and Electric power shut-off switches in their house so to find them during earthquake for shut down.

In the statement, " Do you know how to operate the utility Water/Gas shut-off valves and Electric power shut-off switches." from the data, the majority of respondents 55.6% agreed with the statement, while 34 % strongly agreed with the assertion. Aside from that, 6.9 % of respondents were neutral with the statement, while 2.8 % disagreed, only 0.7% of the respondents strongly disagreed with the statement. The majority of respondents can operate the of utility Water/Gas shut-off valves and Electric power shut-off switches in their house so to shut down them during earthquake.

Respondents were asked "have your cabinets (e.g. for dishes, food, supplies) securely fastened with latches?" The majority of respondents 43.8% agreed, 11.8% strongly agreed with the statement. Aside from that, 20.8% of respondent's response in neutral, while 20.1% responded responses disagreed. Meanwhile only 3.5% of respondents indicated 'strongly disagree,' with statement. The majority of respondents responses that their cabinets (e.g. for dishes, food, supplies) were securely fastened with latches.

In the statement, "Do your residence (Tall furniture, mirrors, paintings, plants) securely fastened to the walls?" According to the statistics, the majority of respondents 41.7% express their view in Agreed, while 25% respondents disagreed with the assumption. Aside from that, 12.5% of respondents were strongly agreed with the statement, while 6.3% respondents strongly disagreed with the assertion. In that, 14.6% respondents stated in neutral. In total, majority of respondent's residence (Tall furniture, mirrors, paintings, plants) have securely fastened to the walls.

Data was gathered from respondents by inquiring Do your family has develop earthquake plan i.e. what to do during and after an earthquake. From data, the majority of respondents 41.7% agreed, 10.4% of respondents responses strongly agreed with the statement. Aside from that 19.4% were disagreed, 3.5% strongly disagreed with the statement. Meanwhile, 25% of those polled indicated 'neutral'. In total majority of respondents mention that their family has develop earthquake plan i.e. what to do during and after an earthquake.

When respondents were asked “Do your house have "Emergency Exit Way/ Plan" on the building. In this responses 52.1% respondents disagreed with the statement followed by 8.3% respondents strongly disagreed, 13.9% respondent’s responses in neutral. Although 22.9% of respondents agreed, only 2.8% respondents stated strongly agreed with the statement. In total majority of respondents replied that they do not have "Emergency Exit Way/ Plan" on the building.

In the declaration, “Do your family have plan to gather in open space if there is damage/loss of property and communication respectively during earthquake. From the data, the majority of respondents 57.6% expressed their view in agree followed by 22.9% responses in strongly disagreed with the declaration. While 7.6% respondents disagreed, in regular that only 2.1% responses in strongly disagree with the assumption. Aside from that, 9.7% of respondents were neutral with the statement. In total, majority of respondent’s family have plan to gather in open space if there is damage/loss of property and communication respectively during earthquake. Data was obtained from respondents by questioning that “Do you know the location of a medical emergency center in your neighborhood”. The data showed that the majority of respondents 62.5% agreed, 27.1% of respondent’s response strongly agreed with the statement. Aside from that, 5.6% disagreed, 0.7% respondents strongly agreed with the statement. Meanwhile, 4.2% of respondents express in neutral. In aggregate, the majority of responders know the location of medical emergency center in their neighborhood.

Data was acquired from respondents by interrogative that do you know the Emergency Communication Center (Police Station, Rescue Centre, and Ambulance) contact number. The data showed that the majority of respondents 59% agreed, 27.8% strongly agreed with the statement. Aside from that, 4.9% of respondent’s response disagreed, 0.7% strongly disagreed with the statement. Meanwhile, only 7.6% of respondents express in neutral. In aggregate, the majority of responders have emergency communication center contact number.

Data was revealed from respondents by questioning that do you listen or watch radio or television messages about earthquake preparedness. The data showed that the majority of respondents 56.3% agreed, 18.1% strongly agreed with the statement. Aside from that, 12.5% of respondent’s response disagreed. Meanwhile, 13.2% of respondents express in neutral with the statement. In aggregate, the majority of responders used to listen or watch radio or television messages about earthquake preparedness.

Data was procured from respondents by questioning that do your household have earthquake insurance. The data showed that the majority of respondents 43.1% disagreed, 22.2% strongly disagreed with the statement. Aside from that, 10.4% of respondent’s response agreed, 3.5% strongly agreed with the statement. Meanwhile, 20.8% of respondents express in neutral with the statement. In aggregate, the majority of respondents do not have household earthquake insurance.

Data was obtained from respondents by questioning that do you attend meetings held by schools or civic organization for the purpose of establishing earthquake preparedness. The data showed that the majority of respondents 47.2% agreed, 5.6% strongly agreed with the

statement. Aside from that, 16.7% of respondent's response disagreed, 2.8% strongly disagreed with the statement. Meanwhile, 9.7% of respondents express in 27.8% with the statement. In aggregate, the majority of responders used to attend meetings held by schools or civic organization for the purpose of establishing earthquake preparedness.

Data was acquired from respondents by questioning that do you vote on bills dealing with earthquake resistant buildings. The data showed that the majority of respondents 45.8% agreed, 25% strongly agreed with the statement. Aside from that, 11.1% of respondent's response disagreed, 2.1% strongly disagreed with the statement. Meanwhile, 16% of respondents express they 'strongly disagree,' with the statement. In aggregate, the majority of responders that they vote on bills dealing with earthquake resistant buildings.

Different between Earthquake Knowledge and earthquake Preparedness

Table 4: Different between Knowledge and Preparedness in Earthquake

Paired Samples Statistics									
		Mean	N	Std. Deviation	Std. Error Mean				
Pair 1	Preparedness	3.5357	144	.48914	.04076				
	Knowledge	3.8194	144	.45486	.03791				
Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Preparedness - Knowledge	-.28373	.56406	.04701	-.37664	-.19082	-6.036	143	.000

Source: Field Survey, 2022

To determine the difference between management students' earthquake knowledge and earthquake preparedness, the mean test scores of Earthquake knowledge and earthquake preparedness are compared. Above table shows there was a significant difference between preparedness (M=3.5357, SD=0.489) and knowledge (M=3.8194, SD=0.4548), because p=0.000 which is less than .05 significant level. The statistical result shows that students have knowledge of earth but their preparedness for the earthquake is less in compare to knowledge.

Discussion

This study is split into three parts. The first aims to examine earthquake knowledge among management students in the Kathmandu district. According to the statistics, the majority of respondents are aware that Nepal is located in an earthquake zone, animals can detect

earthquake severity, and that earthquakes can result in human injury or death as well as property destruction. In addition, they are aware that earthquake planning and preparation can lessen the chance of property destruction. A similar finding was reported in the research, which sought to assess seniors' earthquake preparedness in terms of knowledge, attitude, and behavior. 39.4 percent of those questioned were between the ages of 60 and 66. In all, 94.0 percent have already experienced an earthquake, with 79.4 percent having done so in 2014. Participants demonstrated a high level of knowledge and a positive attitude toward earthquake safety (Songlar, La-or, Chomchoe, & Khunthason, 2018). Another cross-sectional descriptive research was undertaken among 300 people in the Sulk-Gandaki municipality, ward no. 2, Dulegauda-Tanahun District. According to the findings, 58 percent of respondents had appropriate understanding about earthquake preparedness, while 42 percent had insufficient knowledge. In terms of practice, the majority of responders (55%) had insufficient and 45 percent had appropriate earthquake preparedness practice (Devi & Sharma, 2015).

The second purpose is to assess management students' earthquake readiness. As per the research, the majority of respondents have jhatpat jhola, they are familiar with water/gas/electricity shutdown locations and can simply operate them. They have secured their moveable things, such as furniture, mirrors, and paintings, with locks. Furthermore, their family has made plans to congregate in an open location if property is damaged as a result of the earthquake. Furthermore, the majority of respondents listen to or watch earthquake information on the radio or television to keep up to speed on earthquake information and to encourage others to construct earthquake resistance. Respondents, on the other hand, stated that they did not have an emergency escape in their house and that they did not have earthquake insurance for their property. A similar finding was discovered in a Dhaka research, when Higher Secondary Students' understanding of earthquakes and preparation were average. Even though they had a strong understanding of disasters, a few students were unable to answer the question concerning what preparedness meant (Gurung & Khanum, 2021). Similarly, The study investigates seismic risk perception among Dhaka City people as well as their degrees of earthquake preparation. The majority of the data for the research came from a questionnaire poll of 444 city residents. According to the poll results, the vast majority of respondents are unprepared for a huge earthquake that is expected to strike Dhaka. A multivariate analysis of survey data suggests that the value of the respondents' living unit and their educational levels are the most important factors of their preparation status (Paul & Bhuiyan, 2010).

The third task is to identify the difference between earthquake knowledge and earthquake preparedness. The results reveal that management students have a clear understanding of earthquakes, including what procedures must be followed, where preparations must be made, and what should and should not be done. However, their preparation is inadequate in comparison to their knowledge.

Conclusion

The main aim of the study is to identify Knowledge and Preparedness of Earthquake and its different among graduates in Kathmandu district of Nepal. The finding revealed, the majority of respondents are aware that Nepal is in an earthquake zone, that animals can detect earthquake intensity, and that earthquakes can cause human harm or death as well as property damage. Furthermore, they are aware that earthquake planning and preparation can reduce the likelihood

of property devastation. From the study, the majority of respondents had jhatpat jhola, which means they are familiar with water, gas, and electricity shutoff sites and can easily operate them. They have locks on all of their moving items, such as furniture, mirrors, and paintings. Furthermore, if property is damaged as a consequence of the earthquake, their family has made preparations to gather in an open area. Furthermore, the majority of respondents listen to or watch earthquake information on the radio or television in order to be informed about earthquakes and to encourage others to build earthquake-resistant structures. Respondents, on the other hand, reported that they lacked an emergency exit in their home and that their property was not covered by earthquake insurance. Students' answers in the study indicate that they have a good understanding of earthquakes, including what precautions must be taken and what should and shouldn't be done in case of an earthquake. However, their preparation is inadequate in comparison to their knowledge.

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