ISSN 2354-8428 e-ISSN 2598-8727 **KOMPREAWATAN** COMPREHENSIVE NURSING JOURNAL

Published by :

Vol. 9 No. 4, October 2023

Sekolah Tinggi Ilmu Keperawatan PPNI Jawa Barat



JURNAL KEPERAWATAN KOMPREHENSIF	VOL. 9	NO. 4	Bandung October 2023	ISSN 2354-8428	e-ISSN 2598-8727	



Research Article

The Influence of Knowledge, Attitudes, and Self-Efficacy on the Preparedness of School-Age Children in Facing Earthquake Disasters

Sri Janatri*

*Sekolah Tinggi Ilmu Kesehatan Sukabumi, West Java, Indonesia

*contact

srijanatri@gmail.com

Received : 05/10/2023 Revised : 22/10/2023 Accepted : 30/10/2023 Online : 31/10/2023 Published : 31/10/2023

Abstract

Aims: The study aimed to determine the effect of knowledge, attitude, and self-efficacy on preparedness and the simultaneous effect of knowledge, attitude, and self-efficacy on preparedness.

Methods: This study uses a correlational research design with a crosssectional approach. Population and research samples were taken by a total sampling of as many as 143 students in high school at Sukabumi-West Java and as many as 161 respondents. Data collection used a nonstandard questionnaire developed by researchers with answer choices using the Guttman scale.

Results: Most of the mean and standard deviation values of knowledge 14.18 (2,906), attitude 42.69 (6,514), self-efficacy 35.77 (10,575), and preparedness 16.28 (4,076). There is a simultaneous effect of knowledge, attitude, and self-efficacy on preparedness (p-value <0.05). There is a simultaneous influence of knowledge, attitude, and self-efficacy on preparedness (value <0.05).

Conclusion: There is an effect of knowledge, attitude, and self-efficacy on preparedness and a simultaneous effect of knowledge, attitude, and self-efficacy on preparedness. MTs Al-Mu'awwanah Kota Sukabumi needs to improve students' understanding of disaster preparedness through training and extracurricular activities focusing on knowledge, attitudes, and self-efficacy.

Keywords: Attitude, Disaster, Knowledge, Preparedness, Self Efficacy

INTRODUCTION

An earthquake is a natural event in which there is a sudden movement or shift in the rock layers located on the earth's skin caused by the movement of plates, either caused by tectonic plates or volcanic activity (1). Earthquake disasters that can occur suddenly without being predicted certainly require all elements of society to open their eyes to be aware of this. So, preparations need to be made to reduce the consequences that can be caused by the disaster (2).

Based on data from the Meteorology Climatology and Geophysics Agency (BMKG) (2022), there has been an increase in the occurrence of earthquakes in Indonesia in the last two years. In 2020, there were 8,326 earthquakes. In 2021, there were 10,570 earthquakes, and in 2022, the intensity of earthquakes also increased again. It is known that the average frequency of earthquakes every month is 700-900 earthquakes (3).

Earthquakes can have a tremendous impact on their victims. These impacts can be in the form of losses to all aspects of life, including physical, social, and psychological (4). The Indonesian Consortium also revealed that earthquakes can cause losses in many aspects of life, such as education, economy, and psychosocial aspects. The magnitude of these losses can be caused by people and

https://doi.org/10.33755/jkk





communities' lack of readiness to anticipate disasters (5).

Good mastery of disaster management efforts can minimize the risk or impact of disasters. Disaster management can be in the form of activities aimed at controlling disasters and emergencies, and it can also provide a framework for communities to help each other in high-risk situations to avoid and recover from disasters. Disaster management has several phases: mitigation, preparedness, emergency response, and recovery (6).

One of the phases in disaster management is preparedness. Preparedness is one part of developing disaster management processes and is an essential element of proactive disaster risk reduction activities carried out before disaster (7). According to Number 24 of 2007, disaster Law preparedness is a series of actions. preparations, and individual, group, or community activities to face and anticipate disaster threats that threaten survival through planned, appropriate, and effective organizational efforts. Preparedness is important to determine the steps and ways that are fast and appropriate when facing a disaster. This is done by conducting emergency response exercises to minimize disasters' impact. In addition, preparedness is essential to renew the necessary resources and know how to use them (8).

Knowledge is one of the factors that influence preparedness. This is consistent with Susilowati's findings that knowledge significantly impacts preparedness. According to Notoatmodjo, knowledge is the result of human sensing or the result of knowing objects through the five senses, and it can be affected by the intensity of attention and perception of an object. Individual knowledge is acquired primarily through sight and hearing (9). Knowledge is the main factor that is key to the formation of preparedness. This knowledge can encourage awareness to be alert in preventing or anticipating disasters. Lack of tends understanding to result in

unpreparedness, helplessness, and inability to deal with a disaster (10).

Attitude is another factor that can affect readiness. According to research bv Kamriana. attitudes can affect an individual's readiness. Attitude is a confined reaction or response in the form of an appreciation for a stimulus or object. Attitude can also be interpreted as mental preparedness acquired through experience, influencing individuals' responses to other people, objects, and situations (11). The positive attitude that individuals have will certainly affect the increase in their preparedness. Attitude will show conformity to the stimulus received. Encouraging a positive attitude can produce a strong and positive motivation in individuals to make an effort, including efforts to minimize the impact that can be caused by a disaster (12).

Self-efficacy is another factor that affects preparedness. According to Simandalahi's research. self-efficacy also influences readiness. Self-efficacy is an individual's confidence in attaining a desired outcome or objective. Self-efficacy also determines and influences numerous facets of life, such as confronting stressors, adjusting to new environments, or attaining a goal (13). Selfefficacy is another factor that determines and has a positive meaning besides knowledge and attitudes. High self-efficacy will encourage individuals to be more enthusiastic about preparedness. In addition, self-efficacy will also make individuals more open and positive about solving various things, including in terms of preparedness (14).

Preparedness activities carried out from an early age are the first foundation in reducing the impact of disasters because children's age is a concrete operational period. Education from an early age will prepare them to face a disaster, such as understanding knowledge about disasters, attitudes towards disasters, the importance of protecting the environment to prevent disasters, andinding alternative ways in





disaster mitigation efforts (15).

The study aimed to determine the effect of knowledge, attitudes and self-efficacy on disaster preparedness and the simultaneous effect of knowledge, attitudes and self-efficacy on disaster preparedness.

METHODS

A cross-sectional method is used with correlation in this type of study. Total sampling was used to get the population and study sample, which comprised all 143 MTs Al-Mu'awwanah students in Sukabumi City. The answer value scale is a nonstandard tool, like the Guttman scale for readiness or the Likert scale for attitude and self-efficacy. A single-variable analysis with mean, standard deviation, frequency distribution, and percentage of each group was used. A two-variable analysis with simple linear regression and a multivariate analysis with multiple linear regression were also used.

RESULTS

1. Overview of Respondent Characteristics

No.	Respondent Characteristics	F	%
1	Age (Year)		
	12	5	3,5
	13	50	35,0
	14	76	53,1
	15	12	8,4
2	Gender		
	Male	69	48,3
	Female	74	51,7
3	Grade Level		
	7	83	58,0
	8	60	42,0
4	Living in One House		
	Parents	141	98,6
	Brother	1	0,7
	More	1	0,7
5	Length of Stay (Years)		
	<4	10	7,0
	5-9	7	4,9
	>10	132	88,1
6	Training		
	Ever	7	4,9
	Never	136	95,1
7	Attended Training (Times)		
	0	116	81,1
	1	19	13,3
	2	8	5,6
8	Earthquake encounter history		
	Yes	63	44,1
	No	80	55,9
9	Source of Information		

Table 1. Overview of Respondent Characteristics





BPBD/Local Government	9	6,3
Social media	84	58,7
Parents/Relatives	15	10,5
Health worker/Health center	3	2,1
Television/Radio	32	22,4

Table 1 shows that the majority of respondents were: 14 years old (76), 53.1%; female (74), 51.7%; in grade 7 (83), 58.0%; living at home with their parents (132), 88.1%; never having participated in training (136), 95.1%; participating in training zero times (116), 81.9%; not having been affected by earthquakes (80), 55.9%; and obtaining information sources from social media (84, 58.7%).

2. Univariate Analysis

Table 2. Univariate Anal	ysis
--------------------------	------

Variables	Mean	SD	Min	Max
Knowledge	14,18	2,906	9	20
Attitude	42,69	6,514	20	57
Self Efficacy	35,77	10,575	16	57
Preparedness	16,28	4,076	2	23

Table 2 shows that the average value of the knowledge variable is 14.18 with a standard deviation value of 2.906, the lowest value is 9, and the highest value is 20. The average value on the attitude variable is 42.69, with a standard deviation value of 6.514. The lowest value is 20, and the highest value is 57. The average value on the self-efficacy variable is 35.77, with a standard deviation of 10.575. The lowest value is 16, and the highest value is 57. The average value on the preparedness variable is 16.28 with a standard deviation value of 4.076, the lowest value is two, and the highest value is 23.

3. Bivariate Analysis

Table 3. The Effect of Knowledge, Attitude, and Self-Efficacy on School-Age Children'sPreparedness for Earthquake Disasters

Model	В	t	P-Value	R Square	
(Constant)	7,390	4,832	0,000	0.200	
Knowledge	0,627	5,933	0,000	0,200	
(Constant)	4,585	2,241	0,027	0.102	
Attitude	0,274	5,782	0,000	0,192	
(Constant)	10,677	9,655	0,000	0.165	
Self Efficacy	0,157	5,282	0,000	0,165	

Table 3 displays the findings of a basic linear regression coefficient analysis, which suggests that knowledge, attitudes, and self-efficacy affect readiness. The significance level of the test for the regression coefficient is less than 0.05, hence, the null hypothesis that there is no relationship between knowledge, attitude, self-efficacy, and readiness is rejected (p.000). Regarding how well-prepared school-aged children are for seismic disasters, the contributions of each variable are 20.0%, 19.2%, and 16.5%, respectively.





4. Multivariate Analysis

Table 4. Simultaneous Effect of Knowledge, Attitude, and Self Efficacy on School-Age Children's Preparedness for Earthquake Disasters

Model	В	t	P-Value	R Square
(Constant)	2,228	1,130	0,260	
Knowledge	0,368	3,085	0,002	0.200
Attitude	0,124	2,272	0,025	0,308
Self Efficacy	0,098	3,340	0,001	

Based on the p-values for each of the three variables in Table 4's multiple linear regression analysis, it can be concluded that knowledge, attitude, and self-efficacy all have a significant effect on the preparedness of school-aged children in facing disasters. These three factors account for a 30.8% multivariate contribution to students' ability to weather earthquakes while at school.

DISCUSSION

1. Univariate Analysis a. Descriptive Analysis of Knowledge

The results showed that adolescents' knowledge at MTs Al-Mu'awwanah was quite good. Knowledge here is defined as the result of sensing an object through the eyes, nose, ears, and so on. The intensity of attention and perception of the object influences sensing. Knowledge this is importantn shaping a person's actions (overt behavior) (16).

Adolescents' knowledge is obtained from formal sources of knowledge such as education, seminars, and training, as well as from non-formal sources such as other people, print media, and electronic media (17). Previous research has also emphasized that adolescents' knowledge of disasters should include an understanding of disasters, disaster preparedness, appropriate self-rescue actions when disasters occur, and preparation before disasters occur (18). Adolescent age also affects knowledge, with research bv Setiawati et al. (19) showed a significant relationship between age and level of knowledge. The more mature and adult a person is, the higher their knowledge (20). This is consistent with the understanding that more mature psychological development can increase knowledge about disasters and preparedness (21). Apart from age, sources of information also play an important role in shaping adolescents' knowledge. Sources of information include various media such as print, electronic, and mass media (22). People's outlook and understanding can be shaped by the news they consume and other information thev learn about earthquake events. Teens with various information-gathering capacities may also differ in how much they know (21). The results showed that most adolescents information accessed about disasters through social media. which significantly impacted their knowledge.







Therefore, this study shows that age and information sources, notably social media, affect adolescents' levels of knowledge at MTs Al-Mu'awwanah. Knowledge about disasters can be improved through the broad dissemination of relevant data. Findings from this research lend credence to the idea that exposure to new material and the passage of time might increase teenagers' disaster literacy.

b. Descriptive Analysis of Attitude

The results of this study revealed that respondents showed a positive attitude toward earthquake disaster preparedness. This positive attitude was reflected in cognitive indicators such as the belief in the need to provide disaster emergency procedures, make evacuation preparations during an earthquake, the importance of having a disaster warning system, and the need to attend training/simulations related to earthquake disasters. In addition, most respondents also believed that following earthquake disaster emergency procedures would improve their skills in dealing with disasters, and they considered the importance of funding sources, allocation, and mobilization of funds in the context of preparedness. Respondents were also willing to contribute to emergency response action plans, follow evacuation routes in the event of a disaster, provide first aid kits for victims, and participate in technical guidance and provision of preparednessrelated materials.

Attitude is an essential factor that underlies and encourages individuals to take specific actions. Attitudes are psychological reactions that involve positive or negative feelings in response to external stimuli or stimuli that demand personal responses. Attitude components include cognitive, affective, and conative aspects, which relate to an individual's thoughts, feelings, and tendencies toward a particular object or topic (23).

Several factors influence attitude formation. including personal experience, cultural influences, mass media, educational/religious institutions, and emotions (24). In this study, mass media shapes respondents' attitudes regarding disaster preparedness. Mass media is mechanical means а of communication used to disseminate messages to audiences through various channels such as newspapers, radio. television. movies, and so on (25).

Previous research by Giena et al, (26) and Wulandari (27) confirmed that information sources from mass significantly impact individual attitudes. Learning media, especially video media used in an educational context, can provide information that can overcome students' limited experience, thus helping them understand learning better.

The results of this study also show that most respondents get disasterrelated information sources through social media. Thus, it can be concluded that social media has a positive influence on the attitudes held by adolescents regarding earthquake disaster preparedness.

Thus, it can be concluded that the results of this study support the hypothesis that mass media, especially social media, positively impact adolescents' attitudes regarding earthquake disaster preparedness. These positive attitudes are important in encouraging individuals to take appropriate action during a disaster





and improve their safety and that of others.

c. Descriptive Analysis of Self-Efficacy

Based on the results of the study, it was found that respondents had a moderate level of self-efficacy in with earthquake dealing and tsunami disasters. Self-efficacy is an individual's belief and ability to organize and carry out the actions necessary to achieve a given goal (Bandura, 1991). Self-efficacy is important in determining how individuals feel, think, motivate themselves, and act when dealing with certain situations, including disaster preparedness. Self-efficacy is included in positive coping, indicating that individuals can achieve their goals(28).

Previous research by Tumurang et al, (29) Pratama (30), and Pratama (30) have confirmed that selfefficacy has a significant influence on individual behavior when facing problems that are perceived as less controllable. Self-efficacy involves a self-assessment of an individual's ability or competence in carrying out tasks, achieving goals, and producing something. Self-efficacy can be increased through the experience of mastering a skill, observation of social models, social persuasion, and the physical and emotional condition of the individual.

Gender factors also affect selfefficacy, with Suryono's research (31) showing that women have self-efficacy than higher men. Women are often more confident in achieving goals and managing tasks various and problems independently. In disaster preparedness, women with high self-efficacy tend to be more

confident in taking emergency action, have a positive view of disaster preparedness, and are committed to participating in disaster risk reduction efforts.

In addition to gender factors, parental support is essential in adolescent self-efficacy. shaping Darmansyah (2017)found a positive relationship between parental social support and adolescent self-efficacy. Parents can provide incentives by supporting their children, which can increase children's self-efficacy. Parents who give their children time, attention, positive appreciation and can influence their children's selfefficacy (32).

The results also show that most respondents live with their parents, which means they can receive valuable social support regarding disaster preparedness from their immediate environment. Parental support can be in the form of positive appreciation, caring, providing safe shelter. and providing information related to disaster preparedness.

Overall, the results of this study support the understanding that selfefficacy plays a vital role in adolescent disaster preparedness. Factors such as gender and parental support can influence adolescents' self-efficacy, affecting their attitudes and actions regarding disaster preparedness. By understanding these factors, efforts to improve adolescent disaster preparedness can be more effective.

d. Descriptive Analysis of Preparedness

The study's findings suggest that the adolescent population in MTS Al-Mu'awwanah is adequately prepared to deal with the effects of





earthquakes and tsunamis. According to Law of the Republic of Indonesia No. 24 of 2007, disaster preparedness is "a set of activities carried out to anticipate disasters organization through and appropriate and effective steps." Individuals' preparedness, or their ability to foresee, respond to, and recover from the effects of disasters. is an essential aspect of disaster risk reduction efforts (33).

Factors that influence adolescent disaster preparedness include age, gender. and education. The productive age of adolescents, as found in this study, can increase adolescents' disaster preparedness. Adolescents have a high potential for rapid cognitive development and thinking, so they can better realize the importance of disaster preparedness (34). Adolescents also have a good level of resilience in the face of disasters (35). In this case, adolescents can play an active role in disaster risk reduction efforts, including helping to rescue and evacuate disaster victims.

Gender also plays an important role in disaster preparedness. Women often take disaster threats more seriously and have high levels of participation in disaster mitigation and preparedness activities, especially in roles centered within the home (36). This supports the finding that women in this study had good preparedness attitudes.

Education also affects an individual's disaster preparedness. Higher levels of education often correlate with increased knowledge and preparedness in the face of disasters (27)(37).Formal improve education can preparedness behavior due to systematic teaching in the school environment. The higher the level of Jurnal Keperawatan Komprehensif Vol. 9 No. 4 October 2023



formal education, the higher a person's knowledge and preparedness for disasters (28).

In the context of this research, adolescents at Al-Mu'awwanah MTS tend to have factors that support good disaster preparedness, such as productive а age, а more participating female gender, and an improved education level through formal education at school. Thus, they have a strong basis to play an active role in disaster risk reduction efforts and preparedness in the face of earthquake and tsunami disasters.

2. Bivariate Analysis

a. The Effect of Knowledge about Disaster Preparedness on Disaster Preparedness

The study's findings indicate that adolescents' awareness of earthquake disaster preparedness influences how well they are prepared to deal with earthquake events. Tahlil's findings, which suggest that information about disaster risk has a major influence on adolescents' preparedness for facing disasters, corroborate the findings of this study (38). Andini's work supports our findings by showing that teenage awareness of disaster preparedness influences their readiness to deal with seismic land disasters (39).

According to Indonesian law (No. 24 of 2007), disaster preparedness entails a series of actions taken in advance to mitigate the effects of potential calamities. Adolescents' vulnerability to the effects of natural disasters makes it all the more critical that they are taught to prepare for earthquakes if they ever experience one. Several elements, including knowledge, can be used to assess a community's level of readiness for seismic disasters





(39).

Knowledge is a critical component of preparedness, says LIPI-UNESCO/ISDR. When it comes to disasters, it's important to know both what to do in the event of an emergency (self-rescue) and what to do in advance (preparation) (38).

Notoatmodjo (40) says that knowledge comes from humans, meaning that people know things through their senses, like their eyes, nose, ears, etc. Disaster management skills should be basic skills that everyone in the community, even teens, should have so that they can communicate with their families in case of an emergency. According to the Indonesian Ministry of Health in Wulandari (27), disaster management training can help people learn more about preparing for disasters. This should lead to teens being more prepared.

According to Bruner and Lewis (41), individual's level an of preparedness significantly is affected bv their level of psychological development, which allows them to anticipate, identify, and control themselves against actions that should be taken to be prepared in the event of a disaster, and to increase concern for others in the face of disasters (42), as well level as their of cognitive development, which encourages initiative in applying the skills taught.

According to (41), communities can respond to catastrophes more effectively, especially when teenagers take the initiative alone or in partnership with other stakeholders, thanks to a solid understanding of hazards, risks. vulnerabilities, and risk mitigation initiatives. Preparednessrelated information leads to prepared actions and mindsets. Knowledge has a pivotal role in altering and reinforcing antecedents of behavior (i.e., attitudes, supports, and drivers) (27).

The knowledge needed in preparedness is to create and update disaster plans and environmental risk assessments and prevention conduct disaster community education activities, programs, training programs, and disaster simulations. One of the behavioral theories, namely the Preceded-Proceed theory developed by Lawrence Green, emphasizes the analysis of human behavior from the health level, where knowledge is predisposing factor in the а formation of disaster preparedness behavior (41). Perry and Lindell explained that the diversity of characters and information media owned by adolescents will affect preparedness desires. A their person's preparedness level can be formed by how often the person gets knowledge or information about prevention and preparedness (42).

The results showed that respondents had generally good knowledge, which bodes well for respondents' preparedness.

b. Influence of Attitude on Disaster Preparedness

The results of the study show that attitude has a significant influence on adolescent preparedness when facing disasters. This result is supported by Chotimah's research (43) and Adiwijaya (44), which show that attitude positively and significantly influences disaster preparedness.

An individual's response to everything or event is influenced in some way by their attitude toward





it, which is a mental and nervous state and readiness regulated via experience. A person's attitude toward a given stimulus or thing is their attitude. After exposure to a stimuli or object, individuals will evaluate it or form an opinion about it (45). Attitude is a mental and nervous state related to readiness to respond as organized through experience and directly influences behavior. Attitude is learning the tendency to consistently respond to an object, either favored or disfavored(46).

A person's attitude about disasters is a big part of how ready they are to handle them. This means that the more positive they are about disasters, the better they will deal with them (17)LIPI/UNESCO/ISDR says that attitude and worry can change how ready people are for disasters. Efforts to avoid disasters, look into environmental conditions likely to cause disasters, and participate in socialization and training activities can all show how someone feels about dealing with disasters. Teenagers need to be in a good mood and care about disaster preparedness to improve it (47).

Attitude is an indicator of disaster preparedness. Attitudes include willingness to learn about landslides, responding to news of landslides that will occur, having responsibility for the safety of oneself, family, and community, providing rescue equipment, and evacuation. Such an attitude will encourage an adolescent to do disaster preparedness (48).

Individual attitudes towards disaster management can affect individual preparedness in disaster management, especially earthquake disasters, so individual attitudes to respond in disaster response and preparation must be improved. Attitudes show the performance of adolescents when working with other adolescents and community members during preparation and events. In disaster addition. attitudes can support adolescents' willingness to increase their knowledge about disaster management (41).

According to Aldina, one's mental attitude plays a significant part in whether or not they can survive natural calamities. such as earthquakes. Self-rescue is made possible by a loving attitude that generates excitement for preparation on both your part and that of the sufferer. In this scenario, the individual's attitude in deciding to continue with disaster preparations is affected by their attitude, which affects their conduct. A better mentality equals more readiness in times of crisis (17).

This study's findings suggest that most respondents are ready to face earthquakes because they have a positive outlook on seismic catastrophe preparedness.

c. The Effect of Self Efficacy on Disaster Preparedness

The study's findings demonstrate that adolescents' sense of selfefficacy substantially impacts how well they are prepared to deal with earthquake disasters. This study's results align with Syarif's research (49) and Sanjaya (50), which states that there is a significant effect of self-efficacy owned by individuals with disaster preparedness. The study's results were strengthened by Kalpana's research (51), which stated that increasing self-efficacy with disaster training affects disaster preparedness actions. In contrast, Oktavia (20) stated that





self-efficacy significantly affects disaster preparedness.

One of the factors that can affect disaster preparedness is selfefficacy, which can affect disaster preparedness in individuals and communities. Self-efficacy will affect the selection of individual activities based on thoughts with a sense of pessimism or optimism about surviving а challenge or uncontrolled situation. Individuals' belief in their efficacy affects preparedness for potential disaster threats (49).

Adolescents' level of self-efficacy in disaster response determines how well they are equipped to handle future calamities. Adolescents' disaster preparedness may be affected by their level of self-efficacy since adolescents with high selfefficacy are more like

ly to believe in their talents in this area. Adolescents' self-efficacy, measured by their belief in their abilities to take part in disaster preparedness and their willingness to take action in the face of a disaster, is correlated with their level of preparedness for such events (20).

Positive thinking training and group guidance influence increasing selfefficacy in improving preparedness. According to Bandura, individuals believe in their ability to complete tasks with different levels of difficulty, breadth, and strength according to their abilities. Individuals with high confidence will analyze the tasks they face. In addition, a person's self-efficacy must be supported by knowledge and skills in disaster training and disaster group guidance activities. The more of these activities will increase individual confidence in taking an action (51).

How confident one is in one's abilities to perform them is a factor in disaster readiness. The positive outlook of the community in the face of calamities can give people the courage to face any future disasters that may strike. According to Bandura's self-efficacy theory, those who believe in their competence amid a crisis are more likely to take action and exert some control over the circumstance (49).

Teenagers who can overcome obstacles like the earthquake tragedy are more likely to have a positive outlook on life and believe in their abilities to deal with future challenges. Spital's view that a positive outlook in the face of tragedies might bring confidence to face future disasters supports this idea. Those who believe in their abilities more than others tend to be more prepared (49).

3. Multivariate Analysis

Knowledge, attitudes, and self-efficacy were all found to affect disaster readiness, and these factors appeared to work together. The findings demonstrate a link between the factors mentioned above and disaster readiness. A more confident and optimistic outlook on catastrophe preparedness is fostered alongside the enhanced knowledge gained. A positive outlook on preparedness is the result of thorough preparation. Knowledge is crucial in altering and enhancing behavioral elements (attitudes, allies, and drivers) to bring about desirable actions. High self-assurance comes from a understanding solid of disaster preparedness and a positive outlook. The results demonstrated that certain respondents possessed adequate knowledge, constructive attitudes, and robust self-efficacy, all contributing to an overall rise in disaster preparedness.



Jurnal Keperawatan Komprehensif Vol. 9 No. 4 October 2023



CONCLUSION

The mean and standard deviation for earthquake knowledge, attitude toward disaster preparedness, self-efficacy in disaster preparedness, and disaster preparedness among adolescents at MTs Al-Mu'awwanah Kota Sukabumi are 14.18 (2.906), 42.69 (6.514), and 35.77 (10.575), respectively. Knowledge of seismic disasters has a considerable impact on levels of preparedness. The way one feels greatly affects how well one is prepared. Self-efficacy has a substantial effect on being ready. Knowledge, attitude, and selfefficacy all impact how well-prepared school-aged children are for seismic disasters. In the future, researchers will examine school-aged children's likelv preparedness for seismic disasters using a wider range of variables, including social support and self-esteem. Through disaster training and extracurricular disasters, MTs at Al-Mu'awwanah Kota Sukabumi hope to increase students' knowledge, attitudes, and self-efficacy in emergencies.

REFERENCES

- 1. Utomo DP, Purba B. Penerapan datamining pada data gempa bumi terhadap potensi tsunami di Indonesia. In Prosiding Seminar Nasional Riset Information Science (SENARIS). 2019;1(pp):846–53.
- Arisona RD. Sosialisasi Dan Simulasi Mitigasi Bencana Gempa Bumi Dalam Meningkatkan Kesiapsiagaan Siswa Sdn 2 Wates Ponorogo. ASANKA: Journal of Social Science And Education. 2020;1(1):1–7.
- Elnovita R. Gambaran Manajemen Hipertensi Pada Lansia Oleh Keluarga Dan Kesiapsiagaan Keluarga Dalam Menghadapi Bencana Gempa Bumi Di Rw 11 Kelurahan Pasie Nan Tigo Kota Padang Tahun 2022. Univeritas Andalas; 2022.
- 4. Thoyibah Z, Dwidiyanti M, Mulianingsih M, Nurmayani W,

Wiguna RI. Gambaran dampak kecemasan dan gejala psikologis pada anak korban bencana gempa bumi di Lombok. Holistic Nursing and Health Science. 2019;2(1):31–8.

- 5. Simandalahi T, Apriyeni E, Pardede R. Pengaruh Pendidikan Kesehatan Terhadap Pengetahuan Siswa Tentang Kesiapsiagaan Bencana Gempa Bumi. Jurnal Kesehatan Medika Saintika. 2019;10(1):107–14.
- Hadi H, Agustina S, Subhani A. Penguatan kesiapsiagaan stakeholder dalam pengurangan risiko bencana alam gempabumi. Geodika: Jurnal Kajian Ilmu dan Pendidikan Geografi. 2019;3(1):30–40.
- Ferianto K, Hidayati UN. Efektifitas Pelatihan Penanggulangan Bencana Dengan Metode Simulasi Terhadap Perilaku Kesiapsiagaan Bencana Banjir Pada Siswa Sman 2 Tuban. Jurnal Kesehatan Mesencephalon. 2019;5(2).
- 8. Virgiani BN, Aeni WN, Safitri S. Pengaruh Pelatihan Siaga Bencana dengan Metode Simulasi terhadap Kesiapsiagaan Menghadapi Bencana: Literature Review. Bima Nursing Journal. 2022;3(2):156–63.
- 9. Putra IMAS. Gambaran Tingkat Pengetahuan Tentang Kebersihan Gigi Dan Mulut Serta Karies Pada Siswa Kelas IV Dan V SD Negeri Sesetan Denpasar Tahun 2019. Politeknik Kesehatan Kemenkes Denpasar Jurusan Kesehatan Gigi. 2020.
- Susilowati T, Lestari RTP, Hermawati H. Hubungan Pengetahuan Siaga Gempa Bumi dan Sikap Siswa Terhadap Kesiapsiagaan Di SD Negeri 2 Cepokosawit. Gaster. 2020;18(2):172–85.
- Kamriana K, Arafah S. Hubungan Sikap Pengalaman Dan Pengetahuan Relawan Terhadap Kesiapsiagaan Bencana Banjir Di Desa Tangguh Bencana Kelurahan Canrego Kecamatan Polongbangkeng Selatan



Jurnal Keperawatan Komprehensif Vol. 9 No. 4 October 2023



499

Kabupaten Takalar. Media Keperawatan: Politeknik Kesehatan Makassar. 2020;11(2):99–103.

- 12. Wicaksono RA, Imamah IN. Hubungan Pengetahuan dan Sikap dengan Kesiapsiagaan Masyarakat Menghadapi Bencana Banjir di Desa Brangkal Sragen. Sehat Rakyat: Jurnal Kesehatan Masyarakat. 2020;1(4):302–8.
- Jayanti RD. Self Efficacy Dalam Kesiapsiagaan Bencana Gempa Bumi SMP M Boarding School dan SMP M 21 Gantiwarno. JPIG (Jurnal Pendidikan dan Ilmu Geografi). 2020;5(1):46–55.
- 14. Nastiti EM. Faktor-Faktor Yang Mempengaruhi Kesiapsiagaan Perawat Dalam Menghadapi Bencana: literature Review. Journal Of Health Science (Jurnal Ilmu Kesehatan). 2022;7(1):1–7.
- 15. Hayudityas B. Pentingnya penerapan pendidikan mitigasi bencana di Sekolah untuk mengetahui kesiapsiagaan peserta didik. Jurnal Edukasi Nonformal. 2020;1(1):94– 102.
- Notoatmodjo S. Metodologi penelitian kesehatan. Jakarta: Rineka Cipta. 2018;
- Hesti N, Yetti H, Erwani E. Faktor-Faktor yang berhubungan dengan Kesiapsiagaan Bidan dalam Menghadapi Bencana Gempa dan Tsunami di Puskesmas Kota Padang. Jurnal Kesehatan Andalas. 2019;8(2):338–45.
- Pasaribu FRDC, br Perangin-angin MA. Pengetahuan dan Sikap Siswa SMA dalam Menghadapi Bencana Gempa Bumi. The Indonesian Journal of Health Science. 2020;12(1):76–82.
- 19. Setiawati I, Utami GT, Sabrian F. Gambaran pengetahuan dan sikap perawat tentang kesiapsiagaan pelayanan kesehatan dalam menghadapi bencana banjir. Jurnal Ners Indonesia. 2020;10(2):158.

- Oktavianti N, Fitriani DR. Hubungan pengetahuan Dengan Kesiapsipsiagaan Remaja Dalam Menghadapi Banjir di Samarinda. Borneo Studies and Research. 2021;2(2):909–14.
- 21. Firmansyah I, Rasni H. Hubungan Perilaku Pengetahuan dengan Kesiapsiagaan dalam Menghadapi Bencana Banjir dan Longsor pada Remaia Usia 15-18 tahun di SMA Al-Hasan Kemiri Kecamatan Panti Kabupaten Jember (The Correlation Between Knowledge and behavior preparedness in Facing of Floods And Landslides disaster in adolescents aged 15-18 in SMA Al-Hasan Kemiri Sub district Panti of Jember Regency). 2014;
- 22. Yuliani M, Apriliani NYY. Analisis Sumber Informasi Terhadap Pengetahuan Bidan Tentang Teknik Hypnobirthing. Jurnal Inovasi Penelitian. 2022;3(2):4731–6.
- Sulistiowati R, Mulyana N, Maarif S. Peningkatan Kesiapsiagaan Bencana Tsunami Bagi Remaja Di SMA N 2 Kotaagung Kabupaten Tanggamus. In: Prosiding Seminar Nasional Program Pengabdian Masyarakat. 2019.
- 24. Kharismawati RS. Komunikasi Antarbudaya dalam Proses Asimilasi Pernikahan Golongan Priyayi Santri dan Abangan (Studi Kualitatif pada Santri Pondok Pesantren Al Munawwir, Krapyak, Bantul DIY). 2018;
- Saragih A. Pembelajaran bahasa berbasis teks dalam kurikulum 2013. MEDAN MAKNA: Jurnal Ilmu Kebahasaan dan Kesastraan. 2019;14(2):197–214.
- Giena VP, Wahyuni S, Rahmawati I. 26. Pengaruh Media Audio Visual Terhadap Sikap Kesiapsiagaan Masyarakat pada Bencana Banjir di Desa Tanjung Kecamatan Hamparan Rawang Provinsi Jambi. Iurnal Keperawatan Sriwijaya. 2022;9(2):13-7.

doi





- Wijaya SA, Wulandari Y, Lestari RI. Faktor-faktor yang Mempengaruhi Kesiapsiagaan Bencana Gempa Bumi Pada Lansia di Posyandu Puntodewo Tanjungsari Surabaya. Jurnal Keperawatan Muhammadiyah. 2019;4(1).
- 28. Maryanti S, Lestari E, Putri W, Wardani AR, Haris F. Hubungan Tingkat Pendidikan Masyarakat terhadap Kesiapsiagaan Bencana Tanah Longsor di Kelurahan Giritirto Kecamatan Wonogiri. 2017;
- 29. Tumurang DO, Ilat V, Kalalo MYB. Pengaruh Self Efficacy, Kompleksitas Tugas Dan Keahlian Audit Terhadap Audit Judgment Auditor Pada Inspektorat Provinsi Sulawesi Utara. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi. 2019;7(3).
- 30. Pratama HN. THE IMPLEMENTATION OF NEURO-LINGUISTIC PROGRAMMING TECHNIQUES ON INDONESIAN STUDENTS'SELF-EFFICACY AND WRITING ABILITY IN THE CONTEXT OF ENGLISH AS FOREIGN LANGUAGE. 2019;
- Suryono S. Tingkat self efficacy berdasarkan jenis kelamin dan kelas pada peserta didik peminatan ilmuilmu sosial sma negeri 5 jember. Journal of Education Technology and Inovation. 2018;1(2):47–61.
- 32. Damansyah H, Monoarfa S, Karim AR. Pengetahuan dan Sikap Perawat tentang Basic Trauma Cardiac Life Support (BTCLS) dalam Pelaksanaan Tindakan Kegawatdaruratan di Ruang Khusus RSUD dr. MM Dunda Limboto. Zaitun (Jurnal Ilmu Kesehatan). 2021;8(2):814–23.
- 33. Daud RD, Sari SA, Milfayetty S, Dirhamsyah M. Penerapan pelatihan siaga bencana dalam meningkatkan pengetahuan, sikap, dan tindakan komunitas SMA Negeri 5 Banda Aceh. Jurnal Ilmu Kebencanaan: Program Pascasarjana Unsyiah. 2014;1(1).

- 34. Wahidah DA, Rondhianto R, Hakam Faktor-Faktor Μ. yang Mempengaruhi Kesiapsiagaan Perawat dalam Menghadapi Bencana Banjir di Kecamatan Gumukmas Kabupaten Iember (Factors Influencing Nurse Preparedness in the Face of Flooding in Gumukmas Jember). District in Pustaka Kesehatan. 2016;4(3):568-74.
- 35. Salasa S, Murni TW, Emaliyawati E. Pemberdayaan pada kelompok remaja melalui pendekatan contingency planning dalam meningkatkan kesiapsiagaan terhadap ancaman kematian akibat Iurnal Pendidikan bencana. Keperawatan Indonesia. 2017;3(2):154-66.
- Cvetković VM, Roder G, Öcal A, Tarolli P, Dragićević S. The role of gender in preparedness and response behaviors towards flood risk in Serbia. Int J Environ Res Public Health. 2018;15(12):2761.
- 37. Kumalawati R. Pengaruh Karakteristik Masyarakat Terhadap Kesiapsiagaan Pada Daerah Bahaya Banjir di Kecamatan Pandawan Kabupaten Hulu Sungai Tengah Kalimantan Selatan. 2016;
- 38. Tahlil T. Hubungan Pengetahuan, Sikap Bencana Dan Keterampilan Basic Life Support Dengan Kesiapsiagaan Bencana Gempa Bumi Pada Mahasiswa Keperawatan Poltekkes Banda Aceh. Jurnal Ilmu Kebencanaan: Program Pascasarjana Unsyiah. 2017;4(2).
- Andini NF. Hubungan pengetahuan dengan kesiapsiagaan bencana longsor pada remaja di Kelurahan Bukik Cangang Kota Bukittinggi. Jurnal Ilmu Pendidikan Ahlussunnah. 2019;2(2):296869.
- 40. Notoatmodjo S, Krianto T, Hassan A, Mamdy Z. Promosi kesehatan global. 2013;

https://doi.org/<u>10.33755/jkk</u>





- 41. Anam AK, Winarni S. Gambaran Kesiapsiagaan Pedagang Pasar Dalam Penanggulangan Bencana Kebakaran Di Pasar Legi Kota Blitar (Disaster Nursing Research). Jurnal Ners dan Kebidanan (Journal of Ners and Midwifery). 2016;3(3):278–85.
- 42. Fitriana L, Suroto S, Kurniawan B. Faktor-faktor yang berhubungan dengan upaya kesiapsiagaan karyawan bagian produksi dalam menghadapi bahaya kebakaran di PT Sandang Asia Maju Abadi. Jurnal Kesehatan Masyarakat. 2017;5(3):295–307.
- 43. Chotimah S. Upaya Meningkatkan Kemampuan Komunikasi Matematik Siswa SMP di Kota Bandung dengan Pendekatan Realistic Mathematics Educations pada Siswa SMP di Kota Bandung. Didaktik. 2015;9(1):26–32.
- 44. Adiwijaya C. Pengaruh pengetahuan kebencanaan dan sikap masyarakat terhadap kesiapsiagaan menghadapi bencana tanah longsor (studi di Kelurahan Lawanggintung, Kecamatan Bogor Selatan, Kota Bogor). Jurnal Manajemen Bencana (JMB). 2017;3(2).
- 45. Sarwadhamana RJ, Putri IRR, Mahfud M, Indriantoro A, Faizatun F, Hasanah R, et al. Pengaruh Kesiasiagaan Bencana terhadap Perubahan Sikap, Persepsi dan Intensi Mahasiswa dalam Menghadapai Bencana Gempa di Yogyakarta. Indonesian Journal of Hospital Administration. 2022;5(2):71–6.

- Suwarningsih S, Nurwidiasmara L, Mujahidah Z. Lansia dalam menghadapi bencana di Kota Bogor. Jurnal Ilmiah Kesehatan. 2019;11(2):134–46.
- Fadlilah S, Rahil NH, Solihah M, 47. Amestiasih T. Simulasi Menggunakan Video Efektif Meningkatkan Kesiapsiagaan dalam Melakukan Pertolongan Pertama pada Kecelakaan Siswa SMK. To Maega: Pengabdian Masyarakat. Iurnal 2022;5(1):133-41.
- Alwi M, Maharti AWN, Rakhmadini A, Prastiyawan D, Rakhmatika M, Adalya NM, et al. Pemetaan Multi Rawan Bencana di Kabupaten Semarang. Majalah Geografi Indonesia. 36(1):19–31.
- 49. Syarif H, Mastura M. Hubungan self efficacy dengan kesiapsiagaan bencana gempa bumi dan tsunami pada siswa sekolah menengah atas negeri 2 dan 6 Banda Aceh. Idea Nursing Journal. 2015;6(2):53–61.
- 50. Sanjaya W. The Effect of Self-Efficacy, Caring and Organizational Commitment on Disaster Preparedness of Nurses. KnE Life Sciences. 2022;113–21.
- 51. Kalpana H, Dirhamsyah M. Efektivitas pelatihan bencana pre hospital gawat darurat dalam peningkatan efikasi diri kelompok siaga bencana dan non siaga bencana mahasiswa STIKes Perintis Padang. Jurnal Ilmu Kebencanaan: Program Pascasarjana Unsyiah. 2016;3(1).

