

Youth Volunteering for Disaster Preparedness in Port Dickson, Negeri Sembilan, Malaysia

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ABSTRACT

The increasing number of disasters in Malaysia has resulted in the increasing demand for volunteers. The need for volunteers is to ensure the disaster management system can operate well during emergency breaks. This study aimed to measure youth's volunteerism for disaster preparedness in Port Dickson, Negeri Sembilan, Malaysia. The 240 respondents for this research are youths who live in Port Dickson with a range of ages between 15-35 years old. Convenience and Purposive Sampling techniques were used with a questionnaire as the instrument. To answer the research questions, Correlation and Regression Analysis were conducted. Based on the research findings, the level of disaster preparedness among youths is at a moderate point. The other variables tested namely education, altruism, personal development, social interaction, and family volunteering show there is a significant relationship in improving the level of volunteerism among youth for disaster preparedness. The result shows that education is the most contributor to youth volunteerism for disaster preparedness. This summarizes that in ensuring a high level of youth involvement, all parties must work together to educate the youngsters on the importance of volunteering to prepare for disaster breaks. It will help to strengthen the disaster support system as the youths are well prepared for emergency times. The result of this research will benefit the policymakers, national security, disaster agencies, NGOs, and related parties in terms of developing volunteerism enthusiasm among youths in Malaysia.

Keywords: *Altruism, Disaster, Preparedness, Volunteerism, Youth,*

INTRODUCTION

Malaysia is facing a crisis in the level of youth involvement in volunteering activities. Institute for Youth Research Malaysia (2021) mentions that only 27.1% of youths in Malaysia were involved in volunteering activities. This statistic shows that youth is not inclined to be a volunteer as compared to adults and it proves that awareness of volunteerism among the youth community is still lacking. The involvement of youths in volunteering during a disaster is vital as more human workforces are needed to help the victims. One of the important elements of an emergency that need youth volunteering is disaster preparedness. Disaster preparedness is defined as actions to respond before the disaster happens

by providing the necessary resources to carry out an effective response plan (Najafi et al., 2021). In addition, disaster preparedness is an event that has complex social, economic, physical, and political results (Skar et al., 2021). Thus, during disaster preparedness, individuals in and close to the disaster range should be trained in disaster preparedness research and victims protection for instance giving food, shield, and consolation to the survivors. Other than that, in emergency time, volunteers should take part in a wide assortment of assignments such as flotsam and jetsam clearing, collecting food, supplies, cash, and advertising restorative and mental help. Hence, volunteering is the course of activity that which an individual's willingness to perform without expecting any reward to assist other people such as the community and organization affected due to disaster breaks (Mykletun & Himanen, 2021). Therefore, activities in volunteering for disaster preparedness are often planned strategically and involved social activities that benefit the community in any part of the nation (Alias & Ismail, 2021).

Usually, the government of Malaysia provides aids in responding to every disaster that facing by the people using firefighters, police, army, emergency medical services, and other professional emergency services (Johnson, 2021). However, during the time of various occurrences of disaster at different places a time, it will limit the government agencies' ability to take care. In this case, youth volunteerism specifically for disaster preparedness is needed to help the victims effectively without jeopardizing them to any unnecessary danger because youth are already prepared and know how to manage the risk (Johnson, 2021). Therefore, it is important to equip the youth with disaster preparedness knowledge and skills to ensure ensuring the youths know what they are supposed to do and who should be contacted for support if their family and community are affected by disaster (Haq, 2021). This is due to the study that youths who know how to manage the disaster have proven effective in aid response toward disaster (Tartaglione, 2021). Volunteering for disaster preparedness among youths is to ensure they are well trained and prepared for disaster management which subsequently will help the government effectively and efficiently prepare the communities for disasters and assist with relief efforts. Therefore, disaster preparedness among youths is important as a support agent before, during, and after the disaster. Thus, this study aimed at measuring the level of youth volunteerism in disaster preparedness.

A REVIEW ON DISASTER PREPAREDNESS AND YOUTH VOLUNTEERING

The concept of disaster preparedness is intended to enhance the security or safety of lives in the event of a disaster such as a disaster protection action implemented by the authority to ensure more lives can be saved during emergency breaks out (Goddard, 2021). Theoretically, the measurement for disaster preparedness is hazard knowledge, management direction and coordination, response agreements, supportive resource, life safety protection, property protection, emergency coping and restoration, and initiation of recovery activities (Goddard, 2021). Firstly, hazard knowledge is an important aspect of disaster preparedness because entire readiness activities must be based on the knowledge of the danger which focuses on the different types of catastrophic events (Baker, 2021). This knowledge will benefit the authorities and related parties on the impact of natural disasters on the environment and buildings, households, organizations, institutions, society, and the community. Secondly, the management direction and coordination are the strategies for people to manage the disaster preparedness activity as well as to manage response processes (Johnson, 2021). Therefore, the natural disaster council may propose related and important activities in running the emergency operations effectively and efficiently during a natural disaster crisis. These activities include training, practices, exercises, and educational activities for the public (Goddard, 2021). Thirdly, a response agreement is the specific steps that depend on the readiness and consists of activities targeting the development of a disaster preparedness agreement. For instance, the household can plan informally what are the things that need to be provided such as migration, identifying a safe place for human habitation, and consolidation or reconnecting to family members when they are separated during the disaster (Johnson, 2021).

In addition, supportive resources including the human workforce from youth volunteers during the emergency (Dynes, 2021). This can be achieved by training the youths to prepare them to be part of the supportive resources to authorities during a disaster crisis. As for supportive resources, it is an important part of management activities and preparedness agreements to ensure an adequate relief support system

for the survivors and victims of natural disasters (Johnson, 2021). This is due to establishing internal and external resources are necessary for disaster response and recovery as the goals of resource management. Identifying resource needs, acquiring resources, and storing and distributing resources are ways of measuring this preparedness. These supports include the resources of human, material, and informational resources (Goddard, 2021).

Furthermore, one of the ways in ensuring effective disaster preparedness is through the preparation of life safety protection by social workers as a mechanism to protect the health and safety of family members and the community (Sutton & Tierney, 2021). This preparation is an action plan including instruction on what should be done to prepare for an emergency including food, clothes, first aid supplies, tools, and key documents (Goddard, 2021). Next, disaster preparedness is related to property protection which is one of the preparedness activities to protect family, buildings, amenities, equipment, and vital records that are necessary for restoring operations once the disaster is eliminated (Sutton & Tierney, 2021). Disaster preparedness for property protection including emergency copying and restoration plan which had been made to build strategies in identifying problems and issues that are involved when disaster 'attacks'. The training is also made to ensure that all those people involved in the response can carry out the assigned duties (Goddard, 2021). Last but not least is the initiation of early recovery activities (Epure, 2021). One of the recovery plans is the purchase of hazard insurance which is designed to provide financial protection from disaster-related economic losses (NRC, 2021). However, disaster preparedness can be more eloquent with the involvement of youth through volunteering activities.

The first volunteering predictor of disaster preparedness is education which means the youths learn to shape their understanding of disaster preparedness. Education improves reasoning and anticipation skills because the youths may learn particular knowledge on disaster preparedness. Hence, the knowledge can be used as a preventive measure during the disaster to avoid harm to the local community. Bureau of Labor Statistics (2021) stated that individuals with higher levels of education would get involved in volunteering than those with less education. In addition, students who have participated in hazard education programs are most likely to get involved and have a better knowledge of safety behaviors and higher disaster preparedness (Finnis et al., 2021). Thus, through an educational program for disaster preparedness, youths will learn and be prepared on what activities need to be taken when facing disaster or while helping others.

The second predictor is the influence of altruism which means the existence of unselfishness and the concern for the welfare of others. Altruism will leads youth to be more aware and concerned with their surrounding. Moreover, altruism may produce responsible and accountable behavior that responds to human and material resources to contribute as an agent of disaster management (FAMA, 2021). Dynes (2021) said that situational altruism occurs when people believe there are new victims in need of assistance and the existing resources are inadequate to meet those victims' needs. Thus, altruism produces a massive response to human and material resources to cope with the disaster effectively. For the non-profit sectors, situational altruism is enhanced during the emergency period to ensure sufficient resources to deal with the consequences created by the disaster.

The next predictor is personal development as the reason for youth to get involved in volunteering behavior. This is because the youth may increase their self-confidence, communication skills, and teamwork while doing volunteering activities for disaster preparedness. Youth often identify their skills related to responsibilities, preparation for work, problem-solving, and planning. By looking at personal growth, it is about the fact that volunteering will create compassion thus easier for volunteers to be closed to those less fortunate (Epure, 2021).

Furthermore, social interaction works as an act to influence youths to actively get involved in volunteerism. Social interaction does reflect the volunteering behavior among youth because through interaction they can share good experiences and provide more opportunities to build a connection with the new environment. Social networks are important resources or pathways for volunteering as stated

in the volunteering literature which proves networks related to association, networking, and organization linkages (Zomeran et al., 2021). Thus, social interaction is considered the determinant that arises through connections among people (Walter & Pidgeon, 2021). Given that volunteering, exercises are likely to happen especially when influenced by friends, relatives, or acquaintances (McNamara & Gonzalez, 2021). In the end, the aim is to ensure the youths interact well during disaster preparedness training which benefited them when instructed to help the natural disaster victims. Lastly, family volunteering is correlated to youth volunteerism which affects the intention of youth to be involved in volunteering behavior. This is because children will be more likely to be volunteers if their family is involved in volunteering activities (Mohd Ramlan et al., 2021).

METHOD AND MATERIALS

This study embarked on using a quantitative research design. The quantitative research methodology focuses on gathering numerical data and generalizing it across a group of respondents (Allwood, 2021). The quantitative design applied is cross-sectional. This design has three distinctive features which are no time dimension, reliance on existing differences rather than the following intervention, and groups selected based on existing differences rather than random allocation (Lavrakas, 2021). The respondents are the youth who lives in Port Dickson, Negeri Sembilan, Malaysia. Port Dickson was selected because surrounded by beach areas hence the environment generally is more vulnerable to the natural disaster. It is understandable to researchers that collecting data in Port Dickson is potentially more beneficial than collecting data in other areas in Negeri Sembilan. The total number of youths involved was 240 persons. The number of youth proposed by Krejcie and Morgan (2021) from the total of 52,700 youth population lives in Port Dickson. The sampling techniques used in this study are purposive and convenience sampling. The criteria for the purposive sampling are the age of the respondent must be within the range of applicable youth age of 15 to 35 years and must be resident in Port Dickson. Convenience sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study. According to convenience sampling, the primary data collected was used for the research analysis. The instruments used are the questionnaire and the self-distributed technique used in collecting the data. Measurements used in measuring the variables were found reliable in the previous study. As such dependent variable which is Disaster Preparedness, the measurements adapted and adopted from Goddard (2021), for independent variables such as Education is using UNESCO (2021) measurement, for Altruism adopted from Fehlbaum (2021), Personal Development adapted from Lilian (2021) while Social Interaction using measurement by Nugent and Pam (2021) and Family Volunteering adopted and adapted from Mohd Ramlan et al., (2021).

FINDINGS

Profile of Respondents

Most of the respondents are female (63.3%) and youth between the age of 21 to 25 years old (60.4%) are the highest respondents followed by other age categories (Table 1). In terms of education level, it is shown that the highest number of respondents are degree students (40%), meanwhile, for Diploma, SPM, STPM, Secondary and others comprise (39.2%), (11.7%), (5%), (2.5%) and (1.7%) in the percentage of respondents respectively. Next, more than half of the respondents (58.3%) were involved in volunteering activities.

Table 1: Demographic (n; 240)

No	Profile	Number of Respondents	Frequency (%)
1	Gender		
	Male	88	36.7
	Female	152	63.3
2	Age		
	15-20 years old	57	23.8
	21-25 years old	145	60.4
	26-30 years old	12	5.0
	31-35 years old	26	10.8
3	Level of Education		
	Secondary	6	2.5
	SPM	28	11.7
	STPM	12	5.0
	Diploma	94	39.2
	Degree	96	40.0
	Other	4	1.7
4	Are you involved in volunteerism activities?		
	Yes	140	58.3
	No	100	41.7

Measure of Goodness

Reliability or internal consistency is to measure Cronbach's alpha. Cronbach's alpha reliability coefficient range between 0 and 1 (Gliem & Gliem, 2021). For Cronbach statistic, perfect value in reliability is 1, 0.90-0.99 considered excellent, 0.80-0.89 as very good, 0.70-0.79 as good, 0.60-0.69 as acceptable, and 0.00-0.59 as worst. Based on Table 2, the Cronbach's alpha for disaster preparedness (0.892), education (0.885), altruism (0.887), and social interaction (0.899) were more than 0.8, thus were considered very good and reliable. The Cronbach's Alpha for personal development (0.908) and family volunteering (0.915) were considered excellent and reliable.

Table 2: Reliability Analysis (n; 240)

Variables	No of Item	No of Item Deleted	Cronbach's Alpha	Decision
Disaster Preparedness	8	-	0.892	Reliable
Education	5	1	0.885	Reliable
Altruism	6	-	0.887	Reliable
Personal Development	5	-	0.908	Reliable
Social Interaction	6	1	0.899	Reliable
Family Volunteering	5	1	0.915	Reliable

According to Brown (2021), the range of +3 and -3 are acceptable values for Skewness, and the range of +10 and -10 are acceptable values for Kurtosis. Table 3 provides the Skewness data for Disaster Preparedness which is -0.490, Education (-0.337), Altruism (-0.805), Personal Development (-0.837), Social Interaction (-0.784), and Family Volunteering is (-0.242). While, the Kurtosis data for Disaster Preparedness is 1.135, Education (0.392), Altruism (0.214), Personal Development (0.023), Social Interaction (1.994), and Family Volunteering (-0.344). Thus, all the variables are considered normal.

Table 3: Normality Test (n; 240)

Variables	Skewness	Kurtosis	Decision
Disaster Preparedness	-0.490	1.135	Normal
Education	-0.337	0.392	Normal
Altruism	-.805	2.214	Normal
Personal Development	-.837	2.023	Normal
Social Interaction	-.784	1.994	Normal
Family Volunteering	-.242	-0.344	Normal

Disaster Preparedness Level

In measuring the level of disaster preparedness, researchers perform statistical analysis by subtracting the maximum and the minimum values of the mean. Next, the subtracted value is divided into three categories that are low, moderate, and high to know the benchmark score. Therefore, the level of youth volunteerism in disaster preparedness is at a moderate level due to the mean score of 27.61 being within the moderate category (18.80-29.50) as depicted in Table 4.

Table 4: Measure of Central Tendency (n; 240)

Variables	Mean	Min	Max
Disaster Preparedness	27.61	8.00	40.00

Low=8.00-18.70
 Moderate=18.80-29.50
 High=29.60-40.0

Correlational Analysis

In measuring the strength of correlation, a guideline from Evans (2021) that outlining the value of .80 until 1.00 has a very strong relationship, 0.60 to 0.79 strong relationship, 0.40 to 0.59 moderate relationship, and a weak relationship is between 0.20 until 0.39 and very weak relationship is 0.00 until 0.19 (Table 5).

Table 5: Pearson Correlation (n;240)

Variables	1	2	3	4	5	6
Disaster Preparedness	-					
Education	0.657**	-				
Altruism	0.266**	0.249**	-			
Personal Development	0.196**	0.138*	0.603**	-		
Social Interaction	0.188**	0.131*	0.566**	0.727**	-	
Family Volunteering	0.343**	0.439**	0.168**	0.117	0.144*	-

**correlation sig at .05 level (2 tailed)

Regression Analysis

Table 6 shows that Education has a positive strong association with disaster preparedness ($r: 0.65, p < .05$), while other predictors have weak and very weak associations such as family volunteering ($r: 0.34, p < .05$), Altruism ($r: 0.26, p < .05$), Personal Development ($r: 0.19, p < .05$) and Social Interaction ($r: 0.18, p < .05$).

Table 6: Regression Analysis (n: 240)

Variables	Beta (Standardize)
Education	0.603**
Altruism	0.067
Personal Development	0.147
Social Interaction	0.013
Family Volunteering	0.028
R^2	0.403
F	29.818
Sig	0.000b
Durbin Watson	1.660

Regression analysis performed had justified education as the main denominator in studying disaster preparedness among youth in Port Dickson, Negeri Sembilan. However, the model fit for the study is only 40.3% ($r^2: 0.403$). Thus, 59.7% of other potential denominators are not explained in this study. Therefore, enhancing the predictors for future research is possible to have a fit justification in explaining youth volunteering for disaster preparedness.

DISCUSSION

The study found that youths with advanced knowledge had a higher disaster preparedness level than those with basic knowledge. Thus, effective education and emergency management knowledge are important in saving thousands of lives during disasters. Thousands of lives can be saved if more youths are equipped with disaster preparedness knowledge. Disaster preparedness should be in the public education syllabus to turn current knowledge into the behavior of volunteering for disaster risk reduction among the youth. This statement indicates that education influences the intention of youth to join volunteerism for disaster preparedness. A program such as the management of disaster plans will instill knowledge on disaster preparedness among the citizen and youths. This implies that youngsters would only take action if they know specific knowledge on what behavior should be taken to reduce the risks. Next, the youths are willing to involve in volunteering activities if they believe there are positive returns. In addition, youths involved in the hazard education program are more likely to have better knowledge of safety behaviors and higher disaster preparedness levels. There is an argument that disaster preparedness among youth is found to be poor even with hazard education. However, education help youths to turn their hazard knowledge into volunteering behavior to reduce disaster risk. A previous study conducted by Powell et al. (2021) on the involvement of youth in disaster preparedness after/before disaster education programs shows that 95 percent of youth agree that education programs increase awareness and participation among the youths in joining volunteerism as compared before the program which is 78 percent only. Therefore, youngsters that participated in various risk management activities and risk reduction programs demonstrated better knowledge and understanding of security issues and measures. They have also actively promoted better preparedness in their surrounding environment and home. This statement is supported by Goddard (2021) that found youths only take action if they know the specific program and behavior to reduce risks during the disaster. In this situation, education on disaster preparedness for the youth to improve their hazard knowledge is a vital element in reducing disaster risk. Thus, the related parties such as the Ministry of Education (MOE), Ministry of Higher Education (MOHE), and the National Agency for Disaster Management (NADMA) need to work together to develop a specific module targeting youth as the potential social workers to avoid serious injury and chaos during disaster breaks.

Next, altruism plays role in shaping volunteering perception and attitude among youth. Thus, this study added to the current literature on volunteerism which proposed that altruism is a factor that influences youth's involvement in volunteering activities. As altruism is explained as the behavior of helping others that bring benefit to society without getting any reward, thus youth's involvement in disaster preparedness as a volunteer requires willingness among them to help victims honestly. This is due to feeling concerned about the surrounding is the specific type of altruism that must be deployed during a disaster. However, to justify once altruism and honesty are difficult and complex work. It is more on intrinsic value that youth must develop to ensure they are willing to help those in need during disaster breaks. Therefore, preparing the youth through disaster preparedness modules and activities will enhance this intrinsic value. To achieve this, personal development opportunities may be used as one of the pull factors for the youth to involve in activities related to disaster preparedness. Personal development is developing self-awareness, knowledge, and enhancing skills which part of important elements that have a significant relationship with disaster preparedness. Thus, researchers agree with the finding that youths must be able to solve problems and issues related to disaster risk reduction. These personal skills can be developed through youth volunteerism for disaster preparedness. The finding is parallel with literature on volunteering for disaster preparedness created personal growth, customer satisfaction, learning and development of new skill sets, professional development, and also create a new group of friends or colleagues (Baker, 2021). Volunteerism for disaster preparedness also can develop a sense of thinking that is useful and can contribute to the community. In contrast, Martin (2021) found that poor social interaction with the community contributes to the high volume of property loss during a disaster. Therefore, improving social interaction among the youths through disaster preparedness can avoid harm during the occurrence of natural disasters. Social interaction during disaster preparedness activities can expose youth to opportunities and real experiences on action that must be taken during a natural disaster. A review of the 2004 post-tsunami disaster in Indonesia found that relief and early recovery efforts would be more effective if youths can identify, use and strengthen their existing social interaction (United Nations Volunteers, 2021). The study by Tartuglione (2021) on youth volunteerism in leading disaster response in Myanmar found that youth know how to contact the department for support during flood disasters in that country. Therefore, improving social interaction is vital and it can be achieved by involving youth in disaster preparedness activities.

In addition, youth disaster reactions reflect generally similar in degree to those of what their parents do. Youths' and parents' knowledge of disaster preparedness are similar because the youth was influenced by what their parents do. This is supported by Goethem et al. (2021) who found that youth and children are more likely to be a volunteer when their close people join volunteering activities. Disaster preparedness needs to be learned and practiced by each family as it will influence the youths to do the same thing (Paik & Jackson, 2021). Thus, family volunteering is one of the methods to encourage youth volunteering for disaster preparedness. Most youths prefer to be a volunteer if their family members involved in volunteering activities (Mohd Ramlan et al., 2021). By doing this, it can build a close relationship between the youth and their family members. From the discussion on youth volunteering and disaster preparedness, it can be justified that youth involvement is important and highly needed to ensure they are well prepared when disasters break. Understanding the elements and factors that can encourage them to take part in disaster preparedness will be benefited in reducing disaster risks such as loss of life, and property damages and lead to an efficient and effective disaster relief program. Thus, this study proved that the entire system of disaster management must give important attention to the youth volunteering for disaster preparedness.

CONCLUSION

In conclusion, the study found that education is the main antecedent for youth volunteering in disaster preparedness. However, other predictors have a significant impact on creating a voluntary environment among the youths. By involving the youngster in disaster preparedness, it is not only helping to increase awareness of the importance of hazard knowledge but contributes to the community development. Youth volunteerism is vital in saving thousands of lives during disaster breaks. Thus this study revealed significant information that could be useful to disaster preparedness that focuses on youth volunteerism

as support agents before, during, and after disaster breaks. The outcome of this study will benefit many actors who are directly and indirectly involved in youth development projects. For the authority, the finding has significant policy insights that may be considered in creating a youth voluntary policy framework for the nation. The Non-Governmental Organizations (NGOs) that are prominently involved in voluntary activities may focus on giving knowledge and sharing experience instead of practical training only as education is one of the various factors that can encourage youth to become a volunteer. Lastly, it is hoped that the study will help the nation's core capital which are the youths that someday will be the next leader of the beloved country.

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AUTHORS' CONTRIBUTION

Mohd Ramlan, M. A. is the main and corresponding author responsible to analyze and interpret data to conclude the study. Nur Ain Athirah, M. R and Nor Faprizalin, Z., are responsible for doing the reviews and preparing the manuscript according to the journal requirements.

CONFLICT OF INTEREST DECLARATION

We certify that the article is the Authors' and Co-Authors' original work. The article has not received prior publication and is not under consideration for publication elsewhere. This research/manuscript has not been submitted for publication nor has it been published in whole or in part elsewhere. We testify to the fact that all Authors have contributed significantly to the work, validity, and legitimacy of the data and its interpretation for submission to Jurnal Intelek.

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