

Readiness of Community Members on Disaster Risk Reduction and Management

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Abstract:

This study assessed the readiness of community members in a 5th-class municipality in Iloilo for Disaster Risk Reduction Management (DRRM) during the first quarter of 2024 as a basis for an action plan. Using a descriptive research design and a researcher-made survey validated through Carter V. Good and Douglas E. Scates' evaluation criteria, data were gathered from 379 community personnel. Reliability testing was conducted in Canlaon City Division to 30 personnel using Cronbach alpha formula. Descriptive and comparative analyses were conducted using frequency, percentage, mean, and the Mann-Whitney U test. Findings indicate that demographic factors such as age, sex, educational attainment, and income significantly influence readiness levels. Older individuals, females, and those with higher education and income levels exhibit greater preparedness in prevention and mitigation. While overall readiness across DRRM phases—prevention, mitigation, preparedness, response, and rehabilitation—is high, gaps exist in training participation, disaster communication, and management of records and aid. Notably, education and income impact prevention and preparedness but not response and rehabilitation, where older males demonstrate higher readiness. These results underscore the need for tailored strategies addressing demographic variations and enhancing training, communication, and management practices to improve community resilience.

Keywords: Disaster risk reduction and management, readiness of community members

Introduction:

Nature of the Problem

Disaster Risk Reduction and Management (DRRM) has become an increasingly critical focus of global, national, and local initiatives due to the growing frequency and intensity of natural disasters worldwide. Globally, the Sendai Framework for Disaster Risk Reduction 2015-2030, adopted by the United Nations, underscores the importance of reducing disaster risk and enhancing resilience through a comprehensive, multi-hazard approach. This framework encourages countries to prioritize DRRM, emphasizing the need for collaboration between governments, communities, and other stakeholders to minimize the adverse effects of disasters on human lives, livelihoods, and economies.

In the Philippines, DRRM is a central policy due to the country's geographical location, which makes it highly susceptible to various natural hazards, including typhoons, earthquakes, and volcanic eruptions. The enactment of Republic Act No. 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, institutionalized a systematic, comprehensive approach to disaster management at all levels of government. This law mandates the creation of Local Disaster Risk Reduction and Management Councils (LDRRMCs) in every municipality, city, and province, which are tasked with implementing DRRM programs tailored to the specific needs and vulnerabilities of their communities.

The motivation for conducting this study stems from observed gaps in the community's response to recent disaster events in the municipality. These gaps suggest potential deficiencies in the dissemination and internalization of DRRM knowledge among community members. Furthermore, there is a noticeable variance in the community's preparedness levels, possibly influenced by factors such as age, educational background, and access to information. These issues highlight the importance of evaluating the community's readiness and identifying areas for improvement.

The primary purpose of this thesis is to evaluate the current knowledge level of community members of the Municipality of Mina, Iloilo, Philippines, on Disaster Risk Reduction and Management, to identify factors that can serve as the basis for an action plan to improve and maximize the overall disaster management of the community. This study aims to categorize the measurement of community knowledge on disaster risk reduction and management in terms of the four thematic areas, namely: Disaster Prevention and Mitigation, Disaster Preparedness, Disaster

Response, and Disaster Rehabilitation and Recovery. It also intends to find out if there is any significant relationship between the demographic profile and the level of knowledge of the community members.

Current State of Knowledge

Schwerdtle and Adams (2020) conduct an empirical study examining community readiness and disaster resilience across urban and rural settings, as detailed in their article published in *Natural Hazards Review*. Their research provides a detailed analysis of how different community types prepare for and respond to disasters, highlighting significant differences between urban and rural areas. This study contributes empirical evidence to the discussion on disaster readiness by illustrating how community characteristics influence preparedness and resilience outcomes. The findings show the complexities involved in assessing community readiness and resilience, revealing how various factors, such as resource availability and socio-economic conditions, impact preparedness efforts. Their research offers practical insights into the strengths and weaknesses of disaster readiness strategies in different community contexts, which is crucial for developing targeted and effective interventions. This empirical evidence enriches the study by providing concrete data on how community type affects disaster preparedness and resilience.

This study is supported by Garingan (2021), one of the aims of managing disaster preparedness is public education and training on disasters. A disaster preparedness plan will only be effective if those who are the ultimate beneficiaries are able to acknowledge it in times of disaster and know what to expect. For this reason, an essential part of a disaster preparedness plan is the education of those who may be threatened by disaster. Education takes many forms, such as extension programs, in which communities and village-based extension workers are instructed to provide relevant information and trained for the tasks they should undertake during the event.

Incorporating Meyer and Collins' review into the research literature offers a valuable synthesis of knowledge on community preparedness and response. Their comprehensive analysis complements other studies by providing a broad overview of effective strategies and practices, enriching the understanding of how communities can better prepare for and manage natural disasters. This review adds depth to the study by summarizing key findings from existing research and offering insights into best practices for disaster preparedness and response. According to Garingan (2021), one of the biggest challenges in disaster reduction is providing information on natural disaster preparedness. Knowledge and information provide the best instrument for disseminating the information needed to reduce disaster risk by implementing the appropriate risk reduction measures. Therefore, society has a great moral responsibility to establish a safe environment. A high level of education, awareness, and self-organization will provide great potential for avoiding or reducing the negative consequences of natural or man-made disasters.

The result relates to that of Safarpour et al. (2020), wherein most of the participants claimed that the lack of public and organizational education is considered the most important barrier to relief operations. Such an education encounters weaknesses and challenges in many aspects since people are not familiar with the ways of helping, and people who are interested in humanitarian aid are not informed of the kind of donation, to whom, at what time, and how it should be delivered. In addition, the volunteers and local trustees are not well familiar with the ways of participation in identifying the needs of the needy, as well as delivering and distributing the donations.

In this study supported by Bhagat (2020), community participation is the most effective element to achieving sustainability in dealing with natural and man-made disaster risks. The community is the first responder to any disaster and develops some traditional coping mechanisms to reduce their vulnerabilities. In order to generate preparedness and response within the people, LGUs must conduct training for the community to make them aware of disaster preparedness and make them responsible for protecting themselves during and after disasters. There are no permanent personnel who manage, assess, and monitor the financial aid resources of the barangay. Rehabilitation and recovery play a very important role in this preparation as they can address the longer-term needs and challenges that make a community vulnerable and provide the opportunity to increase the capacity of society to cope and reduce the risk of future emergencies and disasters (Amatya et al., 2023).

Theoretical Underpinnings

This theory is anchored to the concept of Readiness for Change as proposed by Armenakis, Harris, and Mossholder (1993). According to this theory, readiness is defined as the extent to which individuals or groups are mentally, emotionally, and behaviorally prepared to embark on and sustain changes. Readiness for change involves a cognitive and emotional mindset that supports or resists the adoption of new behaviors or processes, influenced by the perceived need for change, the perceived capability to implement the change, and the anticipated outcomes of the change. Armenakis and his colleagues highlight that successful implementation of change is heavily dependent on the level of readiness among those affected, which is shaped by their beliefs, attitudes, and intentions toward the change.

In the context of this study, the Readiness for Change theory is particularly relevant as it helps to assess the community members' preparedness for Disaster Risk Reduction and Management (DRRM). The theory provides a

framework for understanding how community members perceive the importance of disaster preparedness, their confidence in their ability to effectively engage in DRRM activities, and their expectations of the outcomes of such efforts. These components are critical in evaluating whether the community is truly ready to implement and sustain DRRM initiatives, which directly aligns with the study's objective to measure the current knowledge level of community members on disaster risk reduction and management.

By applying this theory, the study can identify gaps in readiness that may hinder the effective implementation of DRRM strategies. For example, if the community members perceive DRRM as unnecessary or beyond their capacity, their readiness level would be low, necessitating targeted interventions to change these perceptions and improve readiness. Therefore, this theory not only provides a lens through which to evaluate the community's current state but also guides the development of an action plan to enhance their readiness, ensuring that DRRM efforts are more effective and sustainable.

Objectives

This study aimed to determine the level of readiness of community members on disaster risk reduction management of 5th class Municipality, Province Iloilo during the quarter of the Year 2024, as the basis for an action plan. Specifically, this study seeks to find answers to the following questions: 1) the level of readiness of community members on disaster risk reduction management according to the disaster prevention and mitigation; disaster preparedness, disaster response and disaster rehabilitation and recovery; and 2) the significant difference in the level of readiness of community members on disaster risk reduction management when grouped and compared according to the aforementioned variables.

Methodology:

This section presents the discussion of the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedure for data analysis.

Research Design

This study would use the descriptive design since the researcher identified the level of readiness of community members on disaster risk reduction management of 5th class Municipality, Province Iloilo during the quarter of the Year 2024, as the basis for an action plan. Descriptive research involves gathering that describes events and then organizes, tabulates, depicts, and describes the data (Shuttleworth, 2014). Descriptive research is also valuable in providing facts in which scientific judgment may be based on assessing the present study. Descriptive research designs are also valuable to have a piece of important knowledge about the present situation of the study. It can be yielded to enrich data that at least to import a recommendation.

Study Respondents

The study will focus on the community members in Mina, Iloilo, with a total population of 24,000 individuals. Using Cochran's formula, the sample size was calculated to be approximately 379 respondents, based on a 95% confidence level and a 0.05 margin of error. To ensure a representative sample, probability sampling techniques will be employed, specifically stratified sampling to capture different segments of the population, followed by random sampling within each stratum using a lottery or fishbowl method. The distribution of respondents is outlined in the table below, reflecting a total sample size of 379 from the entire population. This approach ensures that the sample accurately represents the community's diverse characteristics.

Instruments

This study utilized the researcher-made questionnaire. It had two main parts: First part comprises the personal profile of the respondents in terms of age, sex, highest educational attainment, and average family monthly income. The second part was the questionnaire proper on the level of readiness of community members on disaster risk reduction management, 40-line-item questions in Disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation & recovery, 10-line item per area. This study utilized the Likert Scale rating with 5 as always, 4 as oftentimes, 3 sometimes, 2 rarely, and 1 almost never. The average rating of the three jurors was used as basis for the validity of the instrument. Validation average is 4.55, interpreted as "excellent". This showed that the research instrument was "Valid". And the reliability result was 0.920 interpreted as excellent which signifies that said instrument is highly reliable.

Data Gathering Procedure

The researcher sought permission from the concerned authorities and secured the necessary endorsements before floating questionnaires to gather the needed data. The research title was approved by the Thesis Committee headed by the Dean of the School of Graduate Studies of STI West Negros University. After the approval, the researcher got permission through a letter addressed to the district supervisor and to the school heads to allow her to conduct this study and to distribute the questionnaire to the target respondents. The researcher personally retrieved the needed data for subsequent data analysis. The findings should be made as a basis in drawing a proposed of an action plan.

Data Analysis and Statistical Treatment

Objective No. 1 also used the descriptive analytical scheme and mean to determine the level of readiness of community members on disaster risk reduction management in terms of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation & recovery.

Objective No. 2 used the comparative analytical scheme and Mann-Whitney U test to determine a significant difference, if any, in the level of readiness of community members on disaster risk reduction management when grouped and compared according to variables earlier mentioned.

Ethical Consideration

Ethical principles are crucial in protecting human subjects throughout the research process. The study will adhere to ethical guidelines by ensuring informed consent, maintaining confidentiality, and providing participants with the right to withdraw from the study at any time. The ethical considerations will ensure that the research is conducted responsibly and respects the dignity of all participants (Arifin, 2018).

Results and Discussion:

This section deals with the presentation, analysis and interpretation of data gathered to carry out the objectives of this study. All these were made possible by following certain appropriate procedures so as to give the exact data and solution to each specific problem.

Table 1

Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Prevention and Mitigation

Items	Mean	Interpretation
As a community member, I...		
1. have attended any training / seminars on disaster prevention and mitigation.	3.83	High Level
2. am concern about the possibility of a disaster occurring in the area.	4.23	High Level
3. know the types of disasters occurring in the community, its cause and effect.	4.15	High Level
4. ensure to have a family emergency plan in place.	4.12	High Level
5. am aware of any measures taken by the community to prevent or mitigate the impact of potential disaster.	4.12	High Level
6. participate in any activities related to disaster prevention and mitigation.	3.96	High Level
7. see to it that the training program takes into consideration the varying levels of technical expertise among community members.	4.01	High Level
8. am monitoring different news when there are hazards.	4.17	High Level
9. know the routes and shelters in case of a disaster.	4.24	High Level
10. assist in preparing early warning systems in the community.	3.92	High Level
Overall Mean	4.07	High Level

Table 1 presents the level of readiness of community members for disaster risk management in the area of disaster prevention and mitigation. The respondents assessed an overall mean score of 4.07, interpreted as a high level. Examining the table further, the respondents obtained the highest mean of 4.24 on item No. 9, which states "know the routes and shelters in case of a disaster," interpreted as a high level. On the other hand, the lowest mean score of 3.83 was on item No. 1, which states "have attended any training or seminars on disaster prevention and mitigation," interpreted as high level.

The finding implies that many of the respondents seldom attend training or seminars related to disaster prevention and mitigation. This is because training and seminars on disaster prevention and mitigation are rarely conducted in their area, and if there are, only a limited individual are able to join. The result suggests that local government units must broaden their scope, such as by conducting seminars and awareness campaigns per purok or sitio, to encourage more community members to join. The result relates to that of Mubarak et al. (2018). The research results indicated

that training increased the capability of disaster prevention and mitigation compared to educational video screening alone. In other words, training is an effective method for improving the disaster prevention and mitigation skills of students in disaster-prone areas, not just the educational video screening alone.

Table 2

Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Preparedness

Items	Mean	Interpretation
As a community member, I...		
1. have a disaster preparedness action plan for my household. (Evacuation plan, emergency contact number to contact, family contact number, etc.)	3.93	High Level
2. regularly participate in drills and simulations for disaster response.	3.73	High Level
3. have an emergency kit with essential supplies readily available.	3.91	High Level
4. am aware of the communication channels and protocols during disasters.	4.02	High Level
5. know the location of emergency exits and assembly points in my community.	4.09	High Level
6. have a clear understanding of the roles and responsibilities of community members during disasters.	4.24	High Level
7. actively participate in community-based disaster preparedness initiatives.	3.98	High Level
8. am aware of the warning systems and alerts used in the community for disaster notifications	4.05	High Level
9. provide back up power source or alternative energy options in case of prolonged power outage.	3.77	High Level
10. I regularly check and repair my home to prepare for disaster.	4.12	High Level
Overall Mean	3.98	High Level

Table 2 presents the level of readiness of community members for disaster risk management in the area of disaster preparedness. The respondents assessed an overall mean score of 3.98, interpreted as a high level. Investigating the table further, the respondents obtained the highest mean of 4.24 on item No. 6, which states "have a clear understanding of the roles and responsibilities of community members during disasters," interpreted as high level. On the other hand, the lowest mean score of 3.73 was on item No. 2, which states "regularly participate in drills and simulations for disaster response," interpreted as a high level.

The result implies that most of the respondents rarely participate in drills and simulations for disaster response. The reason is that the drills and simulations for disaster response were conducted occasionally, and most of them were not aware of the schedules of the activities. In addition, some community members were not allowed to join by their family members because of the potential risk and danger. The local government plays an integral role before, during, and after disasters because they do not only have direct jurisdiction over their constituents, but they are also expected to know the community's needs as well. Thus, LGUs must engage stakeholder participation in all phases of DRRM and ensure the ensure the transparency of valuable information exchanges.

The result relates to that of Garingan (2021), wherein one of the biggest challenges in disaster reduction is providing information on natural disaster preparedness. Knowledge and information provide the best instrument for disseminating the information needed to reduce disaster risk by implementing the appropriate risk reduction measures. Therefore, society has a great moral responsibility to establish a safe environment. A high level of education, awareness, and self-organization will provide great potential for avoiding or reducing the negative consequences of natural or man-made disasters.

Table 3

Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Response

Items	Mean	Interpretation
As a community member, I...		
1. am aware of the emergency services available in my community.	3.97	High Level
2. know how to provide basic first aid in case of injuries during a disaster.	3.99	High Level
3. am familiar with the evacuation procedures in my community.	4.02	High Level
4. am aware of what to do during a particular hazard (typhoon, flooding, earthquake, fire).	4.11	High Level
5. am aware of emergency contact numbers in our Municipality.	3.88	High Level
6. assigned a route / path to emergency shelters and medical facilities in my community.	3.92	High Level

7. have a clear understanding of the communication channels during disaster response.	3.99	High Level
8. am aware of the resources available for community members during disaster response.	3.95	High Level
9. participate in distributing relief assistance to the community.	3.80	High Level
10. assist in disseminating information to my neighbors.	3.96	High Level
Overall Mean	3.96	High Level

Table 3 reveals the level of readiness of community members for disaster risk management in the area of disaster response. The respondents assessed an overall mean score of 3.96, interpreted as a high level. Inspecting the table further, the respondents obtained the highest mean of 4.11 on item No. 4, which states, "I am aware of what to do during a particular hazard (typhoon, flooding, earthquake, fire)," which is interpreted as a high level. On the other hand, the lowest mean score of 3.80 was on item No. 9, which states "participate in distributing relief assistance to the community," interpreted as a high level.

The findings imply that the respondents seldom participate in distributing relief assistance. The reason is that the respondents value their personal and family's safety first. While others cannot participate since they were also affected by the disaster, The respondents also lack awareness of relief operations due to a lack of information about the way they should deliver the aid. In addition, most of the disasters are far from their area, which hinders their participation. Another is that some of the respondents feel that there is no appreciation or acknowledgement with regards to their contribution to relief operations.

The result relates to that of Safarpour et al. (2020), wherein most of the participants claimed that the lack of public and organizational education is considered the most important barrier to relief operations. Such an education encounters weaknesses and challenges in many aspects since people are not familiar with the ways of helping, and people who are interested in humanitarian aid are not informed of the kind of donation, to whom, at what time, and how it should be delivered. In addition, the volunteers and local trustees are not well familiar with the ways of participation in identifying the needs of the needy, as well as delivering and distributing the donations. Thus, not only the people affected by disasters are suffering from a lack of knowledge, but also the volunteers, managers, relief staff, and GOs are not sufficiently knowledgeable in this regard.

Table 4

Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Rehabilitation and Recovery

Items	Mean	Interpretation
As a community member, I...		
1. make sure that the barangay has information in record keeping requirements and financial aid sources for disaster relief.	3.86	High Level
2. ensure that the barangay creates policies for disaster relief assistance.	3.97	High Level
3. see to it that the barangay has contracted with or made inquiries to any organization to provide psycho-social support to individuals after disaster.	3.96	High Level
4. make sure to inform that the barangay has prepared alternative teaching methods for learners unable to return immediately after disaster.	3.99	High Level
5. ensure that the barangay has created initiatives as to how barangay transactions should be done due to damaged facilities.	4.00	High Level
6. make sure that the barangay conduct structure assessment after a disaster.	4.00	High Level
7. am aware of resources available for rehabilitation and recovery.	3.94	High Level
8. am aware of how to access financial support to our community.	3.99	High Level
9. actively participate in rehabilitation and recovery programs at our community.	3.98	High Level
10. ensure that the barangay carries out monitoring and evaluation to assess the implementation of rehabilitation and recovery.	4.10	High Level
Overall Mean	3.98	High Level

Table 4 shows the level of readiness of community members for disaster risk management in the area of disaster rehabilitation and recovery. The respondents assessed an overall mean score of 3.98, interpreted as a high level. Veering the table further, the respondents obtained the highest mean of 4.10 on item No. 10, which states "ensure that the barangay carries out monitoring and evaluation to assess the implementation of rehabilitation and recovery," interpreted as a high level. On the other hand, the lowest mean score of 3.86 was on item No. 1, which states, "Make

sure that the barangay has information about record-keeping requirements and financial aid sources for disaster relief," which is interpreted as a high level.

The result implies that respondents perceived that the barangay has no clear and updated records of financial aid sources and donors for disaster relief operations. There was poor inventory management in tracking the number and availability of relief goods and the inventory of financial aid, as well as donors' information and donation history. The result relates to that of Abalos et al. (2014): the organization is unable to fully maximize their services for relief operations due to poor donor and inventory management and not being able to identify exactly the list of members and areas affected by disasters.

Table 5

Difference in the Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Prevention and Mitigation when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	173.68	14992.000	0.007	0.05	Significant
	Older	203	204.15				
Sex	Male	184	182.95	16642.000	0.222	0.05	Not Significant
	Female	195	196.66				
Highest Educational Attainment	Lower	283	177.38	10012.000	0.000	0.05	Significant
	Higher	96	227.21				
Average Family Monthly Income	Lower	184	174.24	15040.500	0.006	0.05	Significant
	Higher	195	204.87				

Table 5 summarizes the comparative analysis of the level of readiness of community members for disaster risk reduction management in disaster prevention and mitigation when grouped and compared according to age, sex, highest education attainment, and average family monthly income.

The computed p-values for variables age, highest educational attainment, and average family monthly income are 0.007, 0.000, and 0.006, respectively, which are all less than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster prevention and mitigation when grouped and compared according to age, highest education attainment, and average family monthly income is rejected.

However, for variable sex, the computed p-value is 0.222, which is greater than the 0.05 level of significance and thus interpreted as not significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster prevention and mitigation when grouped and compared according to sex is accepted.

The result implies that the level of readiness of community members for disaster risk reduction management in disaster prevention and mitigation, when compared according to age, highest educational attainment, and average family monthly income, varies. Senior respondents with higher educational backgrounds and incomes may have greater ability and understanding in disaster prevention than their counterpart groups. The result contradicts that of Asio (2021), who revealed that the awareness and compliance of the respondents did not differ when compared according to age, highest educational attainment, and number of family members.

Table 6

Difference in the Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Preparedness when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	168.03	13996.500	0.000	0.05	Significant
	Older	203	209.05				
Sex	Male	184	182.36	16534.500	0.187	0.05	Not Significant
	Female	195	197.21				
	Lower	283	183.30	11688.000	0.041		Significant

Highest Educational Attainment	Higher	96	209.75			
Average Family Monthly Income	Lower	184	180.97	16279.000	0.119	Not Significant
	Higher	195	198.52			

Table 6 displays the comparative analysis of the level of readiness of community members for disaster risk reduction management in disaster preparedness when grouped and compared according to age, sex, highest education attainment, and average family monthly income.

The computed p-values for variables age and average family monthly income are 0.187 and 0.119, respectively, which are all greater than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster preparedness when grouped and compared according to age and average family monthly income is accepted.

However, for the variables age and highest educational attainment, the computed p-values are 0.000 and 0.041, respectively, which are all less than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster preparedness when grouped and compared according to age and highest educational attainment is rejected.

The result implies that the level of readiness of community members for disaster risk reduction management in disaster preparedness, when compared according to age and highest educational attainment, differs. Mature individuals with higher educational backgrounds may have a better understanding of the planning of risk reduction during disasters. The result contradicts Canete (2020), wherein there was no significant difference in the extent of readiness of the respondents in risk reduction management in terms of preparedness when compared according to age, sex, highest educational attainment, and length of service.

Table 7

Difference in the Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Response when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	176.80	15540.500	0.029	0.05	Significant
	Older	203	201.45				
Sex	Male	184	177.67	15671.500	0.033		Significant
	Female	195	201.63				
Highest Educational Attainment	Lower	283	187.72	12938.000	0.485		Not Significant
	Higher	96	196.73				
Average Family Monthly Income	Lower	184	180.81	16249.000	0.112		Not Significant
	Higher	195	198.67				

Table 7 shows the comparative analysis of the level of readiness of community members for disaster risk reduction management in disaster response when grouped and compared according to age, sex, highest education attainment, and average family monthly income.

The computed p-values for variables highest educational attainment and average family monthly income are 0.485 and 0.112, respectively, which are all greater than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster response when grouped and compared according to highest educational attainment and average family monthly income is accepted.

However, for the variables age and sex, the computed p-values are 0.029 and 0.033, respectively, which are all less than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster response when grouped and compared according to age and sex is rejected.

The result implies that the level of readiness of community members for disaster risk reduction management in disaster response, compared according to age and sex, varies. This is very evident during floods, wherein the father or head of the family was always the last to leave the house and even stayed in their homes regardless of the risks just to protect their properties. The result relates to that of Garingan (2021), wherein age, sex, civil status, ethnic affiliation, and occupation affect disaster preparedness and management in emergencies.

Table 8

Difference in the Level of Readiness of Community Members on Disaster Risk Reduction Management in Disaster Rehabilitation and Recovery when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	173.36	14935.500	0.006	0.05	Significant
	Older	203	204.43				
Sex	Male	184	178.34	15794.000	0.044	0.05	Significant
	Female	195	201.01				
Highest Educational Attainment	Lower	283	184.77	12103.500	0.110	0.05	Not Significant
	Higher	96	205.42				
Average Family Monthly Income	Lower	184	180.10	16118.500	0.087	0.05	Not Significant
	Higher	195	199.34				

Table 8 displays the comparative analysis of the level of readiness of community members for disaster risk reduction management in disaster rehabilitation and recovery when grouped and compared according to age, sex, highest education attainment, and average family monthly income.

The computed p-values for variables highest educational attainment and average family monthly income are 0.110 and 0.087, respectively, which are all greater than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster rehabilitation and recovery when grouped and compared according to highest educational attainment and average family monthly income is accepted.

However, for the variables age and sex, the computed p-values are 0.006 and 0.044, respectively, which are all less than the 0.05 level of significance and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of readiness of community members for disaster risk reduction management in disaster rehabilitation and recovery when grouped and compared according to age and sex is rejected.

The result implies that the level of readiness of community members for disaster risk reduction management in disaster rehabilitation and recovery compared according to age and sex differs. This is because disaster risk reduction management is usually manned by mature male individuals. They are more capable of dealing with disaster risks than their counterpart groups. The result contradicts that of Garingan (2021), wherein the compliance of the respondents with disaster rehabilitation and recovery does not vary much regardless of age and sex.

Conclusions:

Despite the generally high levels of readiness observed across all DRRM phases—prevention, mitigation, preparedness, response, and rehabilitation—there are notable gaps that require attention. The study identifies a need for increased participation in disaster-related training and drills, more effective communication of disaster response activities, and improved management of records and financial aid in the event of a disaster. These areas of weakness highlight opportunities for strengthening the community's disaster response capabilities.

The findings also indicate that while educational attainment and income levels positively impact readiness in the prevention and preparedness phases, they do not significantly influence readiness in disaster response and rehabilitation. Conversely, sex does not appear to affect readiness in prevention and preparedness, but older males show higher preparedness levels in response and rehabilitation. This underscores the importance of developing tailored disaster risk reduction strategies that cater to the specific needs of different demographic groups.

The study emphasizes the need for a comprehensive approach to DRRM that addresses the varying levels of readiness across demographic groups. By focusing on enhancing training, communication, and management practices, the community can improve its overall preparedness and resilience to disasters.

Recommendations

Based on the conclusions of the study, several recommendations are proposed to enhance the community's readiness for Disaster Risk Reduction Management (DRRM). First, it is essential to develop and implement targeted disaster-related training and drill programs that address the needs of groups with lower levels of readiness, particularly younger individuals and those with lower educational attainment. This approach can help bridge the preparedness gap and ensure that all community members are adequately equipped to respond effectively during disasters.

Strengthening communication strategies is also crucial. Improving the dissemination of information about disaster response activities through various platforms, such as social media, local radio, and community bulletins, will ensure that all residents, regardless of age or education level, are well-informed about their roles and responsibilities during emergencies. Additionally, investing in better inventory management systems and financial aid record-keeping at the barangay level can enhance the efficiency of relief distribution and resource allocation during and after a disaster.

It is recommended that the youth take an active leadership role in DRRM initiatives. Young individuals, who are often more tech-savvy and engaged with digital platforms, can spearhead efforts in raising awareness, organizing training sessions, and coordinating drills. By empowering youth to lead in these areas, the community can harness their energy, innovation, and strong communication skills to strengthen disaster preparedness efforts across all demographics. Furthermore, developing mentorship programs where older individuals can guide younger leaders can foster a sense of shared responsibility and leadership continuity.

Tailored DRRM strategies should be developed to address the specific needs of different demographic groups. For instance, older individuals and females, who already exhibit higher readiness levels, can be engaged as leaders or mentors in community-based disaster preparedness programs. Conversely, additional support and resources should be directed towards younger and less educated community members to improve their readiness.

Increasing community engagement and participation in disaster preparedness activities is also recommended. Organizing regular workshops, seminars, and community drills led by youth leaders can foster a culture of preparedness and resilience, ensuring that more residents actively participate in disaster readiness efforts. Finally, establishing a system for regular monitoring and evaluation of DRRM readiness, including feedback mechanisms, will help maintain responsiveness to the community's evolving needs and continually improve disaster preparedness strategies. Implementing these recommendations will strengthen overall disaster readiness, address existing gaps, and enhance the community's ability to respond effectively to future emergencies.

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