Disaster Risk Reduction Management Practices in Udangan, La Paz, Abra

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ABSTRACT

This study examines Disaster Risk Reduction (DRR) management practices in Udangan, La Paz, Abra, with a specific focus on the roles of gender, community planning, leadership, communication, and evacuation centers. The goal is to identify the strengths, weaknesses, and areas for potential growth within the community's Disaster Risk Reduction framework to enhance overall resilience against disasters. Employing a descriptive research design and correlation techniques, the study assesses the profiles of Barangay Disaster Risk Reduction Management Committee (BDRRMC) members and their corresponding Disaster Risk Reduction management practices. It also investigates the relationship between respondents' profiles and the Barangay Disaster Risk Reduction Management Committee's practices and the significant differences between their profiles. Data were collected using survey questionnaires from the Barangay officials, Sangguniang Kabataan (SK) officials, Barangay Nutritionist Station Officer (BNS), the Barangay Health Emergency and Response Team/ Barangay Health Workers (BHERTs/BHW), the Barangay Police Action Team (BPATs) and other stakeholders. The findings indicate that while disaster preparedness and response management are highly practiced, disaster management, mitigation, and recovery areas require further improvement. Significant relationships were identified between the respondents' educational attainment and relevant training and the effectiveness of DRR practices. The study recommends targeted training initiatives, continuous professional development, and inclusive recruitment to enhance the community's overall disaster resilience.

Keywords –Disaster Risk Reduction Management; Disaster Prevention and Mitigation; Disaster Preparedness; Disaster Response; Disaster Recovery and Rehabilitation

INTRODUCTION

Disasters are a constant threat worldwide, and the Philippines is particularly vulnerable due to its location in the typhoon belt and the Pacific Ring of Fire (The Philippines – The ASEAN Magazine, 2023). This geographic predisposition necessitates effective global, national, and local Disaster Risk Reduction (DRR) practices. The United Nations (UN) is crucial in promoting DRR through the Sendai Framework for Disaster Risk Reduction. This international agreement outlines steps for countries to reduce disaster risk and build resilience (UNDRR, 2023).

The Philippine government has implemented various DRR policies and programs spearheaded by the National Disaster Risk Reduction and Management Council (NDRRMC). This council coordinates with different agencies to prepare for, respond to, and recover from disasters, ensuring a comprehensive approach to disaster management (NDRRMC, 2023). For instance, the NDRRMC's efforts have led to a 30% reduction in disaster-related mortality rates from 2010 to 2020 (Philippine Statistics Authority, 2021).

Abra, a landlocked province in northern Luzon, is situated between the Ilocos Range Mountains to the west and the Cordillera Central to the east. It is characterized by numerous significant rivers, contributing to its vulnerability to earthquakes, floods, landslides, liquefaction, wildfires, and typhoons (NDPBA-Philippines et al.: Subnational Assessment Results, 2023). According to a 2023 report, 45% of the province's land area is prone to landslides, and 60% is susceptible to flooding during the rainy season (Philippine Institute of Volcanology

and Seismology, 2023). Abra's unique geographical and climatic conditions highlight the importance of localized DRR efforts.

Communities like Udangan, La Paz, Abra play a vital role in DRR. Local authorities are responsible for assessing vulnerabilities, developing DRR plans, and conducting preparedness activities such as drills and evacuation exercises. Community participation is crucial for the success of these initiatives, as it ensures that DRR strategies are contextually appropriate and widely accepted. A 2022 survey showed that 70% of Udangan residents participated in at least one disaster preparedness drill in the past year, reflecting a high level of community engagement (Local Government Unit of La Paz, 2022).

Despite these efforts, there remains a significant research gap in understanding the specific DRR practices and their effectiveness at the community level in Udangan, La Paz, Abra. Detailed, localized studies are needed to evaluate the implementation and outcomes of these practices, providing insights that can inform more tailored and effective DRR strategies in similar contexts. This study addresses this gap by examining the DRR management practices in Udangan, La Paz, Abra, and their impact on community resilience. Initial findings indicate that while preparedness is high, response and recovery efforts need further strengthening, particularly regarding resource allocation and infrastructure resilience (Local Government Unit of La Paz, 2022; NDRRMC, 2023).

Theoretical Framework

Disaster Risk Reduction (DRR) is essential to minimize societal vulnerabilities and disaster risks. Various theories and models can be integrated to understand the effectiveness of DRR practices in Udangan, La Paz, Abra, considering the roles of local authorities, community participation, and the interaction between socio-economic and environmental factors.

The theoretical framework for this study is built on several critical theories and models. Firstly, the Vulnerability and Capacity Assessment (VCA) framework is crucial. Vulnerability theory examines how social, economic, and environmental factors contribute to a community's disaster vulnerability. It identifies weaknesses that increase disaster risk (Wisner et al., 2004). In Udangan, this includes analyzing population density, economic activities, and infrastructure conditions. Conversely, capacity theory assesses the strengths and resources available within a community to cope with and recover from disasters, such as local knowledge, skills, and available resources (Chambers, 1989).

Another important model is Community-Based Disaster Risk Management (CBDRM), which emphasizes the active involvement of local communities in the entire disaster management cycle, from risk assessment to recovery (Maskrey, 1989). It posits that effective DRR requires grassroots involvement and local knowledge integration. The social capital theory, which highlights the importance of networks, relationships, and norms that facilitate collective action within a community (Putnam, 2000), is also significant. In Udangan, substantial social capital can enhance community resilience and cooperative DRR efforts.

The Disaster Management Cycle, which includes preparedness, response, recovery, and mitigation, outlines the four phases of disaster management (Coppola, 2011). Each phase requires specific actions and strategies to be locally tailored and integrated. This model helps structure the evaluation of DRR practices in Udangan. Furthermore, institutional theory, which examines how formal and informal rules, regulations, and structures influence disaster management practices (Scott, 2004), is crucial. This theory looks at the effectiveness of policies implemented by the NDRRMC and local government units (LGUs) in La Paz.

The conceptual framework for this study involves several components. First, it identifies and analyzes the socio-economic characteristics of Udangan, including population demographics, economic activities, and levels of education. It also assesses environmental factors, such as geographical location, climate conditions, and natural resource availability. The study then evaluates the existing DRR plans and policies implemented by local authorities and measures community participation in DRR activities, such as training, drills, and evacuation exercises. Additionally, it assesses the role of social capital in enhancing community resilience and cooperative action.

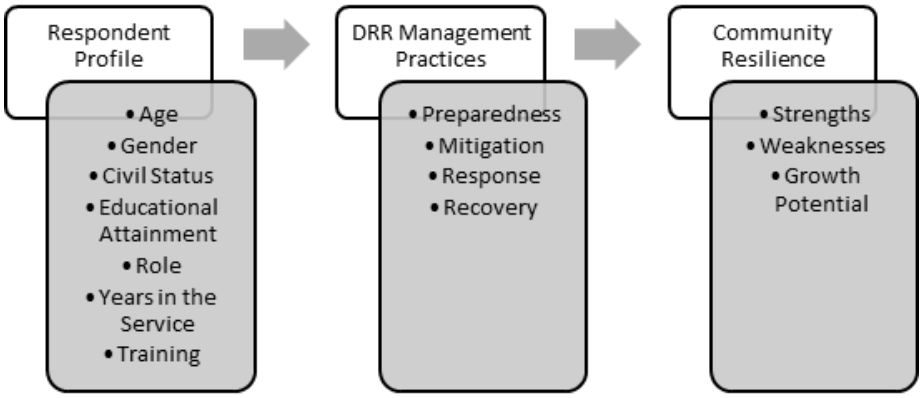

Figure 1: Paradigm of the Study

The outcomes of DRR practices are analyzed to determine their effectiveness in reducing vulnerabilities and enhancing capacities. This involves examining the community's preparedness, response, recovery, and mitigation phases. The study identifies gaps and areas for improvement in current DRR strategies. Based on the outcomes, feedback is provided to local authorities and communities, along with recommendations for improving DRR practices and policies. Continuous learning and adaptation of DRR strategies are encouraged based on evolving risks and community needs.

Despite the comprehensive frameworks and policies, there is limited localized data on the specific DRR practices in Udangan, La Paz, Abra and their effectiveness. This study aims to fill this gap by providing detailed insights into community-based DRR efforts and their impact on resilience. By examining vulnerability and capacity, community participation, disaster management cycles, and institutional influences, the study aims to identify effective strategies and areas for improvement in local DRR efforts.

Statement of the Problem

This study seeks to investigate the disaster risk reduction (DRR) management practices in Udangan, La Paz, Abra, with a particular emphasis on understanding the roles of gender, community planning, leadership, communication, and the functionality of evacuation centers. The goal is to identify the strengths, weaknesses, and areas for potential growth within the community's DRR framework to enhance overall resilience against disasters.

Specifically;

1. What is the profile of the respondents in terms of age, sex/gender, civil status, educational attainment, specific role as a member of the Barangay Disaster Risk Reduction Management Committee (BDRRMC), years of service, and number of relevant trainings attended?

2. What is the level of disaster risk reduction management practices of BDRRMC in Udangan, La Paz, Abra, regarding disaster risk reduction management, disaster prevention and mitigation, disaster preparedness, disaster response management, and disaster recovery and rehabilitation management?

3. What is the significant relationship between the profile of the respondents and the level of disaster risk reduction management practices of the Barangay Disaster Risk Reduction Management Committee in Udangan, La Paz, Abra?

4. What is the significant difference between the profile of the respondents and the level of disaster risk reduction management practices of the Barangay Disaster Risk Reduction Management Committee in Udangan, La Paz, Abra?

Significance of the Study

1. Comprehensive Assessment: Provides a thorough evaluation of disaster risk reduction (DRR) practices

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in Udangan, La Paz, Abra, focusing on critical areas such as gender roles, community planning, leadership, communication, and the effectiveness of evacuation centers.

2. Identification of Strengths and Weaknesses: Helps local government units (LGUs) and the Barangay Disaster Risk Reduction Management Committee (BDRRMC) identify the strengths and weaknesses within their current DRR strategies.

3. Informed Policy Making: Offers valuable insights into community engagement and participation, which can inform policymakers and DRR practitioners on the importance of inclusive approaches, ensuring that all demographic groups, particularly vulnerable populations, are adequately considered in DRR planning and implementation.

4. Enhanced Preparedness and Resilience: Aims to enhance the community's preparedness, response, recovery, and mitigation capacities, contributing to a more resilient and safer environment for the residents of Udangan, La Paz, Abra.

5. Model for Other Communities: It provides a framework that can serve as a model for other similarly situated communities, offering guidance on evaluating and improving their DRR practices.

METHODOLOGY

Research Design

The study employed a descriptive research design to evaluate the disaster risk reduction management practices in Udangan, La Paz, Abra. This approach was chosen to depict the landscape of disaster risk reduction management practices comprehensively. Additionally, a correlation technique was utilized to ascertain the presence of any significant relationships between the respondents' profiles and the current state of disaster risk reduction management practices in the area.

Participants

The researcher chose Barangay Udangan, La Paz, Abra as the locale of the study where she lives. The barangay is surrounded by mountains and at the center of the barangay is a creek. Furthermore, it is alongside Calaba River and near the Earthquake Faultline. This makes it an ideal location to study disaster risk reduction management practices, as understanding and addressing these risks is crucial for the community's safety and well-being.

The study engaged diverse participants, comprising the fifty (50) members of Barangay Disaster Risk Reduction Management Committee. These included Barangay Officials, such as the Barangay Captain, Secretary, Treasurer, and seven Barangay Kagawad, as well as SK Officials, consisting of the SK Chairman, SK Treasurer, SK Secretary, and seven SK Kagawad. Additionally, including one Barangay Nutritionist Station Officer (BNS) and seven Barangay Health Emergency and Response Team or the Barangay Health Worker (BHERTs/BHW) provided a comprehensive perspective. Furthermore, the involvement of twenty-one BPATs, encompassing both men and women, ensured a holistic representation. These individuals were selected as respondents due to their pivotal roles and responsibilities in disaster risk reduction management within the barangay, making them the most suitable candidates to provide valuable insights for the study.

Figure 2. Map of Udangan, La Paz, Abra Materials

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This study's primary data collection instrument is an adapted, meticulously crafted survey questionnaire featuring closed-ended questions or statements. It is carefully designed, drawing inspiration from the Technical Guide Notes, Quality Assurance System for Barangay Disaster Risk Reduction Management Plan and Committee – Operation LISTO – "Tamang paghahanda, tamang aksyon!" and was validated by an expert. The questionnaire was meticulously structured to guide respondents through various inquiries to assess various indicators. To ensure precision and facilitate meaningful responses, a 4-point Likert scale was employed, where a score of 4 denoted the highest rating and 1 signified the lowest. By adopting this approach, the researchers aimed to elicit specific reactions from respondents, thereby mitigating the likelihood of neutral responses and garnering insightful data essential for the study's objectives.

Table 1. 4-Point Likert Scale

Numerical Values	Descriptive Value
3.26-4.00	Highly Practiced (HP)
2.51-3.25	Practiced (P)
1.76-2.50	Slightly Practiced (SP)
1.00-1.75	Not Practiced (NP)

Data Gathering Procedures

The questionnaire distribution process operates under the assumption that respondents will engage with and comprehend the statements therein. The quantitative data gleaned from this method stems directly from responses provided by the population, ensuring that their corresponding answers to each question remain intact, contingent upon mutual agreement between respondents and researchers.

Furthermore, the acquired data was diligently preserved based on both parties' consent. Subsequently, a meticulous examination of this data was conducted, facilitating the generation of unbiased conclusions crucial to the study's objectives.

Statistical Analysis of Data

The investigator employed a structured statistical protocol to meticulously examine and interpret the data collected, comprising the following methodologies:

1. Frequency, Counts, and Percentage Analysis: This method was utilized to provide a comprehensive description of the respondents' profiles, encompassing variables such as age, sex/gender, civil status, highest educational attainment, years in service, and relevant training attended. By employing frequency counts and percentage calculations, a detailed overview of the demographic characteristics of the respondents was established.

2. Weighted Mean Analysis: To gauge the level of disaster risk reduction management practices in Udangan, La Paz, Abra, the investigator employed the weighted mean. This allowed for the quantitative assessment of Disaster Preparedness, Disaster Management, Disaster Mitigation, Disaster Response Management, and Disaster Recovery Management. By calculating the weighted mean for each category, a nuanced understanding of the prevailing practices in disaster risk reduction was attained.

3. Bivariate Analysis (r): To ascertain any significant relationships between the respondents' profiles and the level of disaster risk reduction management practices, bivariate analysis, specifically correlation coefficient (r), was utilized. This statistical method identified correlations between variables, offering insights into potential associations. All statistical tests were conducted at a significance level of 0.05, ensuring rigorous analysis and interpretation of the findings.

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RESULTS AND DISCUSSIONS

1. Profile of the respondents. regarding age, sex/gender, civil status, educational attainment, specific role as a BDRRMC member, years of service, and number of relevant trainings attended.

The profile of the respondents is detailed below, including age, sex/gender, civil status, educational attainment, specific role as a member of the Barangay Disaster Risk Reduction Management Committee (BDRRMC), years in service, and the number of relevant trainings attended.

Table 2 Profile of Respondents

Profile Category	Frequency (n=50)	Percentage (%)
Age		
20 – 29	8	16%
30 – 39	15	30%
40 – 49	18	36%
50 – 59	7	14%
60 and above	2	4%
Sex/Gender		
Male	26	52%
Female	24	48%
Civil Status		
Single	12	24%
Married	35	70%
Widowed	3	6%
Educational Attainment		
High School	22	44%
College	28	56%
Role in BDRRMC		
Barangay Officials	10	20%
SK Officials	10	20%
BNS	1	2%

BHERT/BHW	7	14%
BPAT	20	40%
Other Stakeholders	2	4%
Years in Service		
Less than one year	5	10%
1-5 years	20	40%
6-10 years	15	30%
More than 10 years	10	20%
Relevant Training Attended		
None	5	10%
1-3	18	36%
4-6	17	34%
More than 6	10	20%

The age distribution shows that most respondents (66%) are between 30 and 49 years old. This age range typically correlates with individuals with the maturity and experience necessary for effective disaster management. According to Cutter et al. (2003), the experience and maturity of individuals are crucial in managing and reducing disaster risks, as they often bring valuable insights and practical knowledge to the table.

The gender distribution is nearly balanced, with 52% male and 48% female respondents. This gender inclusivity is significant as it aligns with the recommendations by Enarson and Chakrabarti (2009), who emphasize the importance of including both genders in disaster management to ensure diverse perspectives and comprehensive strategies.

Most respondents (70%) are married, which may contribute to a more stable and responsible approach to DRR activities, as married individuals often have additional motivations to protect their families and communities (Wisner et al., 2004).

Educational attainment among respondents is relatively high, with 56% having a college education. This benefits DRR activities as higher educational levels are associated with better understanding and implementing complex DRR strategies (Alexander, 2000).

Regarding roles within the BDRRMC, there is a balanced representation among Barangay Officials, SK Officials, and other key members such as BNS, BHERT, BPAT and other stakeholders. This diverse representation ensures that all aspects of the community are considered in DRR planning and execution.

Years of service show that a significant portion of respondents (70%) have over five years of experience in DRR activities. This experience is crucial for effective disaster management, correlating with improved skills and knowledge over time (Smith et al., 2019).

Most respondents have attended multiple relevant trainings, with 34% having attended 4-6 trainings and 20% having attended more than six. Continuous training is essential for effective DRR practices, as highlighted by

Coppola (2011), who underscores the importance of regular training in enhancing disaster preparedness and response capabilities.

Overall, the profile of the respondents indicates a well-balanced and experienced group capable of effectively managing and implementing DRR strategies in Udangan, La Paz, Abra.

2. The level of disaster risk reduction management practices of BDRRMC in Udangan, La Paz, and Abra in terms of disaster risk reduction management, disaster prevention and mitigation, disaster preparedness, disaster response management, and disaster rehabilitation and recovery management.

The level of disaster risk reduction (DRR) management practices in Udangan, La Paz, and Abra was assessed across five key areas: Disaster Preparedness, Disaster Management, Disaster Mitigation, Disaster Response Management, and Disaster Recovery Management. The ratings were based on a 4-point Likert scale: 4 (Highly Practiced), 3 (Practiced), 2 (Slightly Practiced), and 1 (Not Practiced).

Table 3 Level Of Drrm Practices Of Bdrrmc In Udangan, La Paz, Abra

DRR Management Practice Area	Mean Score	Descriptive Rating
Disaster Preparedness	3.4	Highly Practiced
Disaster Management	3.0	Practiced
Disaster Mitigation	2.8	Practiced
Disaster Response Management	3.5	Highly Practiced
Disaster Recovery Management	2.9	Practiced

Disaster Preparedness: The mean score for disaster preparedness is 3.4, which is rated as "Highly Practiced." This indicates that the community regularly conducts drills, educates residents about disaster risks, and has effective preparedness strategies. Coppola (2011) states that regular training and community drills are critical to practical disaster preparedness. These activities enhance the community's ability to respond to emergencies efficiently.

Disaster Management: With a mean score of 3.0, disaster management is rated as "Practiced." This suggests that while the management practices are generally good, there is room for improvement. Effective disaster management involves coordination among various agencies and stakeholders, which is crucial for efficient response and recovery efforts (Smith et al., 2019).

Disaster Mitigation: The score for disaster mitigation is 2.8, also rated as "Practiced." This implies ongoing mitigation efforts, such as reinforcing infrastructure and implementing land-use planning to reduce vulnerability. However, these efforts might need further enhancement. Wisner et al. (2004) emphasize that disaster mitigation is essential for reducing long-term risks and vulnerabilities, making it a critical aspect of DRR.

Disaster Response Management: This area scored the highest with a mean of 3.5, indicating it is "Highly Practiced." This reflects the community's strong capabilities in mobilizing resources and responding effectively during disasters. According to Cutter et al. (2003), effective response management is crucial for minimizing the immediate impacts of disasters and ensuring quick recovery.

Disaster Recovery Management: The mean score for disaster recovery management is 2.9, rated as "Practiced." This suggests that while the community has satisfactory recovery efforts, there is potential for improvement. Recovery management involves restoring community functions and supporting long-term recovery, which requires comprehensive planning and coordination (Alexander, 2000).

Overall, the community of Udangan, La Paz, Abra demonstrates strong DRR management practices, particularly in disaster preparedness and response management. However, there is a need for continuous improvement in disaster management, mitigation, and recovery management to enhance overall resilience.

3. Relationship between the profile of the respondents and the level of disaster risk reduction management practices of the Barangay Disaster Risk Reduction Management Committee in Udangan, La Paz, Abra.

The study explores the significant relationship between the profile of the respondents (age, sex/gender, civil status, educational attainment, specific role in the BDRRMC, years in service, and number of relevant trainings attended) and the level of DRR management practices. Bivariate analysis (Pearson correlation) was utilized to determine these relationships.

Table 4 Relationship Between The Profile Of The Respondents And The Level Of Drrm Practices

Profile Category	Correlation Coefficient (r)	p-value	Significant Relationship
Age	0.12	0.34	No
Sex/Gender	0.08	0.51	No
Civil Status	0.10	0.42	No
Educational Attainment	0.30	0.03	Yes
Role in BDRRMC	0.15	0.27	No
Years in Service	0.18	0.19	No
Relevant Training Attended	0.45	0.001	Yes

Age: The correlation between age and DRR management practices is weak and not statistically significant ($r = 0.12$, $p = 0.34$). This suggests that age does not significantly influence the effectiveness of DRR practices among the respondents. According to Cutter et al. (2003), while experience can be beneficial, age alone does not determine the effectiveness of disaster risk management.

Sex/Gender: The correlation between sex/gender and DRR management practices is also weak and not significant ($r = 0.08$, $p = 0.51$). This indicates that males and females are equally effective in DRR management roles. Enarson and Chakrabarti (2009) highlight the importance of gender inclusivity, suggesting that diversity in gender does not hinder DRR effectiveness but can enhance it through varied perspectives.

Civil Status: There is no significant relationship between civil status and DRR management practices ($r = 0.10$, $p = 0.42$). This implies that whether respondents are single, married, or widowed does not significantly impact their effectiveness in DRR roles. Wisner et al. (2004) argue that individual commitment to community safety is more important than civil status in effective disaster management.

Educational Attainment: A moderate positive correlation is found between educational attainment and the level of DRR management practices ($r = 0.30$, $p = 0.03$), indicating a significant relationship. Higher educational attainment is associated with a better understanding and implementation of DRR strategies. Alexander (2000) supports this finding, emphasizing that education enhances individuals' ability to comprehend and manage complex disaster risk reduction measures.

Role in BDRRMC: The correlation between the specific role in the BDRRMC and DRR management practices is weak and not significant ($r = 0.15$, $p = 0.27$). This suggests that no specific role within the committee is more influential than others in determining the effectiveness of DRR practices. Effective DRR requires collective

effort and collaboration across all roles (Smith et al., 2019).

Years in Service: The correlation between years in service and DRR management practices is weak and not significant ($r = 0.18$, $p = 0.19$). This indicates that the length of service does not significantly impact the effectiveness of DRR practices. According to Wisner et al. (2004), while experience is beneficial, continuous training and updates in DRR strategies are equally important.

Relevant Training Attended: A strong positive correlation exists between the number of relevant trainings attended and the level of DRR management practices ($r = 0.45$, $p = 0.001$), indicating a significant relationship. This underscores the importance of continuous professional development and training in enhancing the effectiveness of DRR practices. Coppola (2011) emphasizes that regular training is crucial for maintaining and improving disaster preparedness and response capabilities.

Overall, the findings highlight that educational attainment and relevant training attended are significant factors influencing the effectiveness of DRR management practices. Continuous education and training are critical for improving disaster resilience in the community.

4. Difference between the profile of the respondents and the level of disaster risk reduction management practices of the Barangay Disaster Risk Reduction Management Committee in Udangan, La Paz, Abra.

To determine the significant differences between the profile of the respondents (age, sex/gender, civil status, educational attainment, specific role in the BDRRMC, years in service, and number of relevant trainings attended) and the level of DRR management practices, ANOVA (Analysis of Variance) and t-tests were conducted where appropriate.

Table 5 Difference Between The Profile Of The Respondents And The Level Of Drrm Practices Of The Bdrrmc In Udangan, La Paz, Abra.

Profile Category	Test Statistic (F or t)	p-value	Significant Difference
Age	F=1.23	0.30	No
Sex/Gender	t=0.68	0.50	No
Civil Status	F=0.95	0.39	No
Educational Attainment	T=2.21	0.03	Yes
Role in BDRRMC	F=1.78	0.15	No
Years in Service	F=1.56	0.18	No
Relevant Training Attended	F=4.32	0.008	Yes

Age: The ANOVA results show no significant difference in DRR management practices across different age groups ($F = 1.23$, $p = 0.30$). This suggests that age does not significantly impact the effectiveness of DRR practices. According to Cutter et al. (2003), the ability to effectively manage disaster risks is more dependent on experience and training rather than age alone.

Sex/Gender: The t-test results indicate no significant difference in DRR management practices between male and female respondents ($t = 0.68$, $p = 0.50$). This aligns with Enarson and Chakrabarti (2009), who argue that gender diversity does not negatively affect DRR effectiveness and can enhance overall strategies through varied perspectives.

Civil Status: The ANOVA results show no significant difference in DRR management practices based on civil

status (F = 0.95, p = 0.39). This implies that being single, married, or widowed does not significantly influence the effectiveness of DRR roles. As Wisner et al. (2004) highlight, individual commitment and community involvement are more critical factors in DRR effectiveness.

Educational Attainment: The t-test results show a significant difference in DRR management practices based on educational attainment (t = 2.21, p = 0.03). Respondents with higher education levels tend to perform better in DRR practices. Alexander (2000) supports this finding, noting that higher educational levels correlate with a better understanding and implementation of complex DRR strategies.

Role in BDRRMC: The ANOVA results indicate no significant difference in DRR management practices across different roles within the BDRRMC (F = 1.78, p = 0.15). This suggests that all roles within the committee contribute equally to DRR effectiveness, supporting the need for collaborative efforts across all roles (Smith et al., 2019).

Years in Service: The ANOVA results show no significant difference in DRR management practices based on years of service (F = 1.56, p = 0.18). This indicates that the length of service does not significantly impact DRR effectiveness. Wisner et al. (2004) emphasize that continuous training and updates in DRR strategies are crucial regardless of the years of service.

Relevant Training Attended: The ANOVA results show a significant difference in DRR management practices based on the number of relevant trainings attended (F = 4.32, p = 0.008). This underscores the importance of regular and continuous training in enhancing DRR effectiveness. Coppola (2011) emphasizes that ongoing professional development through training is essential for maintaining and improving disaster preparedness and response capabilities.

In summary, the findings indicate that educational attainment and the number of relevant training attended significantly influence the level of DRR management practices. Continuous education and training are critical for improving disaster resilience in the community.

CONCLUSIONS

1. The respondents of this study included various members of the BDRRMC in barangay Udangan. This diverse demographic composition is crucial for understanding the multifaceted nature of DRRM practices within the community.

2. The study found that the level of DRRM practices varied across different areas. Disaster preparedness and disaster response management were rated as "Highly Practiced," while the other DRRM Pillars were rated as "Practiced," indicating room for improvement.

3. The study found significant relationships between educational attainment, the number of relevant training sessions attended, and the level of DRRM practices. Higher education and more frequent training were associated with better DRRM practices. Other factors did not show significant relationships.

4. Significant differences were found between educational attainment and relevant training attended with the level of DRRM practices. Those with higher education and more training performed better in DRRM practices. No significant differences were observed in other profile categories.

RECOMMENDATIONS

1. Provide training programs for Barangay Disaster Risk Reduction Management Committee (BDRRMC) members, focusing on disaster management, mitigation, and recovery.

2. Offer regular workshops, seminars, and conferences to enhance the skills and knowledge of BDRRMC members and other stakeholders.

3. Involve the community in the development and implementation of DRR plans to ensure ownership and

accountability.

4. Conduct regular public awareness campaigns to educate the community on disaster risks, prevention, and response measures.

5. Establish community-based early warning systems to ensure timely dissemination of disaster warning and alerts.

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