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| RESEARCH ARTICLE

Protecting Lives and Properties against Calamities: The Experiences of Disaster Risk Reduction and Management Personnel

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| ABSTRACT
Disaster risk management refers to the application of plans and procedures for reducing disaster risk to prevent new disaster risks, minimize current disaster risk, and manage residual risk. This process helps to reduce disaster losses and increase resilience (Disaster Risk Management | UNDRR, 2007). This study explored the experiences of disaster risk reduction and management personnel through a qualitative research method. The participants of this study were the ten (10) participants chosen from the five (5) DRRM sectors in the municipalities of the Province of Guimaras. All participants were subjected to individual in-depth interviews. The findings of this study are described in emergent themes. Four (4) emergent themes described the positive and negative experiences of the participants in the implementation of disaster risk reduction and management programs. For the positive experiences, two (2) emergent themes were developed, namely: *Empowering Community Resilience* and *Satisfaction of Effective Crisis Response*. For the negative experiences, two (2) emergent themes were also developed, namely: *Hurdles in Promoting Public Compliance* and *Inadequate Resources and Manpower Constraints*. Meanwhile, two (2) emergent themes were formulated to explain how the participants address the challenges encountered in the implementation of disaster risk reduction and management programs, namely: *Collaborative Partnerships for Resource Management* and *Capacity Building through Continuous Training*. Finally, two (2) emergent themes were created to express the Aspirations of the Participants to Improve the Quality of Service, namely: *Institutional Support and Resource Sustainability* and *Fostering Proactive Community Engagement*. Based on the emergent themes identified, it is advised that the DRRM personnel be provided with consistent resource management and community engagement training to enhance their ability to address constraints more effectively and promote a proactive stance on disaster risk reduction.

| KEYWORDS

DRRMC, Disaster Risk Reduction Management, Community-based Disaster Management, Phenomenology, Guimaras, Philippines

| ARTICLE INFORMATION

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1. Introduction

Disaster risk management refers to the application of plans and procedures for reducing disaster risk in order to prevent new disaster risk, minimize current disaster risk, and manage residual risk. This process helps to reduce disaster losses and increase resilience. The three types of disaster risk management actions are compensatory disaster risk management (residual risk management), corrective disaster risk management, and prospective disaster risk management (United Nations Office for Disaster Risk Reduction, 2007).

A report on the effects of hazards, disasters, and anthropogenic climate change was recently released by the United Nations Office for Disaster Risk Reduction. Based on the report the serious and intricate effects of the hazards that mankind faces today have overshadowed the many accomplishments of the Sustainable Development Goals (Su, 2022).

The World Bank Group contributed $38.6 billion in climate funding, up 22% from the previous year, to support efforts to alleviate poverty on a livable world. Also assisted 98 countries in prioritizing catastrophe risk reduction. Of the $95 billion in World Bank loans, 41% went toward financing climate action in FY23. Still, the world is a long way from the estimated $140-300 billion that underdeveloped nations could require for adaption measures by 2030 (World Bank, 2023).

Disaster management agencies invest differing levels of resources into guiding communities to get ready for a range of hazards, and are increasingly turning to community engagement as a way of increasing preparedness (Ryan et al., 2020).

The Philippines is vulnerable to geophysical and climate disasters. Filipinos reported little climate change understanding and considered higher temperatures, season changes, and heavier rains the most likely effects. Disaster preparedness in the Philippines varies by region. Most Filipinos recognize natural dangers as a threat, yet just a third prepare for them. Filipinos who see climate change affecting their households prepare more for calamities. (Bollettino et. al., 2020).

During calamities, disaster responders try to keep communities safe and secure. During the Asia-Pacific Economic Cooperation Economic Leaders' Meeting, which took place in Pasay City on November 18 and 19, 2015, the National Disaster Risk Reduction and Management Council (NDRRMC) recruited disaster responders, and the study looked at their job satisfaction. Recognition, accountability, and peer relationships all positively impact disaster responders' job satisfaction. Additionally, motivational elements are more important than hygienic considerations. Notably, disaster responders' intrinsic willingness to assist others in times of need is influenced by important job satisfaction criteria. To help ensure that disaster responders are satisfied, the NDRRMC should incorporate the important job satisfaction aspects into government policies and initiatives (Perez, 2019).

Currently, there has been no qualitative research conducted to the disaster risk management and reduction council personnel in the province of Guimaras. It is high time to conduct the study to determine the work life of these personnel with the end hope of proposing a policy program that will help address the different challenges they faced in the performance of their duties.

The researcher is a registered criminologist who is currently working as a faculty of the College of Criminal Justice Education. The researcher is motivated to conduct this study in order to have an accurate data in determining the experiences of the disaster risk reduction and management personnel who have engaged in different disasters predominantly on how they managed physical, emotional and psychological uproar before, during and after the disaster and the intervention programs offered by the government to help them overcome the problem that affects their performance.

2. Literature Review

This study was anchored mainly on Disaster Management Theory by Carter (1992) and supported by Safety Culture Theory by Cooper (2018) and Resilience Theory of Wang and Quan (2022).

Disaster Management Theory by Carter (1992) emphasizes a comprehensive approach to disaster management, covering the entire disaster management cycle. This cycle includes prevention, mitigation, readiness, response, recovery, and development. The theory advocates for proactive and holistic disaster management strategies to effectively address disasters at every stage of their occurrence. International organizations play a crucial role in this theory by providing financial resources and expertise for mitigation projects, training disaster management officials, and supporting response and recovery operations. Additionally, collective action and knowledge sharing across borders enhance global resilience, reinforcing the need for international cooperation in disaster management.

A significant focus of Disaster Management Theory is the social impact of disasters, particularly on marginalized and underprivileged populations. These groups are often overlooked in disaster planning, despite being disproportionately affected. By incorporating the knowledge and experiences of marginalized individuals into Emergency Disaster Mitigation and Preparedness Planning (EDMPP) strategies, disaster responses can become more effective and equitable. Furthermore, the theory highlights the increasing use of Equity, Diversity, and Inclusion (EDI) frameworks in improving disaster preparedness. EDI principles empower marginalized communities to contribute knowledge about themselves, ultimately enhancing their disaster resilience (Lillywhite & Wolbring, 2022).

Another key aspect of Disaster Management Theory is the integration of Geographic Information Systems (GIS) and related technologies. From basic GIS mapping to advanced planning, response, recovery, and mitigation activities, technology plays a vital role. Remote sensing, GPS, indoor navigation systems, and Unmanned Aerial Systems (UAS) enhance GIS spatial analysis during emergency situations. The combination of theoretical understanding and practical experience strengthens the application of GIS in disaster management. Disaster Management Theory also explores global disasters, examining how GIS is adapted for varying

contexts and evolving challenges. Emerging technologies such as machine learning and the Internet of Things (IoT) are increasingly integrated into GIS systems to further improve disaster management capabilities (Reinhardt & Drennan, 2020).

Cooper (2018), in Safety Culture Theory, explained that individuals perceive safety concepts differently, which shapes their subsequent efforts to improve safety practices. This theory highlights that safety culture embodies a proactive approach to enhancing workplace safety and reflects both the attitudes and behaviors individuals adopt concerning safety measures. The evidence shows the best proactive stance is to target the significant safety issues found nested within the common safety characteristics (management/supervision, safety systems, risk, work pressure, competence, procedures and rules) identified from public enquiries into process safety disasters. This is best achieved by focusing on the entity's safety management system and their people's safety related behaviors, not by trying to change people's values, beliefs and attitudes. A revised model of safety culture is offered to help guide readers in their quest to improve their safety cultures, along with an adapted model of safety culture maturity.

According to Cooper (2018), safety culture is shaped by three interdependent components: psychological aspects (employees' perceptions of safety), behavioral aspects (actions taken to ensure safety), and situational aspects (policies, procedures, and safety management systems). A strong safety culture is characterized by proactive risk management, open communication, and continuous learning, ensuring that safety is embedded into the daily operations of an organization rather than being viewed as a mere regulatory obligation.

Cooper (2018) further asserts that organizations with a positive safety culture exhibit a commitment to safety at all levels, particularly in leadership and management. Leaders play a crucial role in fostering an environment where safety concerns are addressed promptly, and employees feel empowered to report hazards without fear of reprisal. Additionally, regular safety training, incident reporting mechanisms, and performance assessments contribute to the sustainability of a strong safety culture.

The Resilience theory by Wang and Quan (2022) explores the capacity of individuals, organizations, and communities to withstand, adapt to, and recover from adverse conditions while maintaining functionality. This theory defines resilience as a dynamic and multifaceted process that involves proactive risk assessment, adaptive learning, and the ability to absorb disruptions without significant long-term consequences. Unlike traditional risk management approaches that focus primarily on preventing failures, resilience thinking emphasizes the development of flexible and adaptive systems that can sustain operations despite unexpected challenges. The theory highlights the importance of preparedness, rapid response mechanisms, and continuous innovation in ensuring that entities can effectively cope with uncertainties such as natural disasters, economic crises, and technological disruptions.

Resilience theory emphasizes the resistance, adaptation, and transformation abilities of a system subject to external interference. Under this theory, the five elements of natural disaster response, landscape (environmental) protection, social organization governance, cultural element inheritance. For instance, integrating models, findings, methods, and training across multiple systems and levels holds great promise for elucidating resilience processes that will inform efforts to build capacity for healthy adaptation in the face of rising threats to families and societies around the world (Masten, 2018).

Wang and Quan (2022) argue that resilience is built through a combination of structural robustness, adaptive capacity, and resourcefulness. Structural robustness refers to the physical and institutional infrastructures that can endure external shocks, while adaptive capacity pertains to the ability to adjust strategies based on evolving circumstances. Resourcefulness, on the other hand, involves the efficient allocation and mobilization of available resources to mitigate risks and recover swiftly from disruptions. The Resilience Theory underscores the necessity of cross-sector collaboration, knowledge-sharing, and strategic planning to enhance resilience at multiple levels. Its application is particularly relevant in disaster risk reduction and management.

As resilience theory gains traction as a theoretical framework for research in social work, it is important to engage with it critically. This addresses three aspects of resilience theory: its definition, the construction of adversity and outcomes, and the nature and scope of resilience processes. The relevance of resilience theory for social work is evaluated according to three criteria: the research questions it generates, its contribution to indigenous knowledge and decolonization, and its contribution to social development (Breda, 2018).

In parallel with the observed greater frequency of natural disasters worldwide, there has been an ever-increasing interest in urban resilience and its assessment. Experience obtained in recent extreme events (in particular, earthquakes and floods) has revealed that both the level of preparedness and the response of affected cities were insufficiently high, whereas the recovery process was long and expensive. For this reason improved pre-disaster mitigation actions, as well as smart and strategic urban planning in threatened areas (e.g. in earthquake-prone regions), is essential (Rus et al., 2018).

Disaster resilience is viewed as a dynamic process of adapting and bouncing back from adversity, not just the ability to withstand a single event. The theory examines factors contributing to resilience at various levels, including individual (culture, socio-economic status, social networks), community (planning, development, asset mapping), and public policy (management, preparedness, response, recovery) (Schneid, 2018).

The approach of National Disaster Coordinating Council (NDCC) was heavily focused on disaster response rather than preparedness and mitigation. Its mandate was primarily to deal with the immediate aftermath of disasters, which led to a reactive disaster management system.

Later on, Republic Act No. 10121 (2010) was enacted on May 27, 2010, replacing the outdated Presidential Decree No. 1566 of 1978, which created the National Disaster Coordinating Council (NDCC). RA 10121 aims to strengthen the Philippines' institutional capacity for disaster risk reduction and management and to build the resilience of communities to disasters.

The law institutionalizes the National Disaster Risk Reduction and Management Council (NDRRMC), as well as Local DRRMCs, tasked with developing and implementing policies for disaster risk reduction, preparedness, and response across the country. The Republic Act No. 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, shifted the country's approach to disasters from a reactive stance to a proactive, risk-reduction model by establishing a comprehensive disaster risk reduction and management (DRRM) system.

Republic Act No. 10121 (2010) seeks to strengthen the Philippine disaster risk reduction and management system through the adoption of the National Disaster Risk Reduction and Management Framework (NDRRMF), and the National Disaster Risk Reduction and Management Plan (NDRRMP). It further aims to recognize and strengthen the capacity of the national government and the local government units (LGUs), together with partner stakeholders, to build the disaster resilience of communities, and to institutionalize arrangements and measures for reducing disaster risks, including projected climate risks, and enhancing disaster preparedness and response capabilities at all levels.

The law serves as the Consortium's first victory in pushing for much needed structural and functional reforms. Not only was the role of local governments as the first line of defense in facing disasters was finally recognized but it also marks the paradigm shift from focus on rescue and recovery to preparedness and risk reduction.

Disaster Risk Reduction and Management (DRRM) can benefit from integrating both Safety-I and Safety-II approaches to create a more comprehensive and resilient framework. Traditional DRRM strategies often align with the Safety-I perspective, which focuses on minimizing adverse outcomes such as disasters, casualties, and infrastructure damage. This reactive approach primarily seeks to prevent risks and respond effectively when disasters occur. However, while essential, this perspective alone is insufficient for fostering long-term resilience. DRRM can shift toward a more proactive and adaptive strategy that emphasizes ensuring that systems, communities, and organizations consistently function well under varying conditions. Instead of solely measuring disaster management success by the absence of failures (e.g., reduced casualties or damage), a Safety-II-driven DRRM approach would focus on enhancing community preparedness, strengthening adaptive capacity, and ensuring that disaster response systems perform optimally. This means not only mitigating risks but also enabling communities to thrive despite uncertainties. For instance, rather than only focusing on past disasters to predict and prevent future risks, DRRM efforts should also evaluate successful disaster response strategies, best practices in community resilience, and effective coordination mechanisms. This proactive stance supports capacity-building programs, inter-agency collaboration, and continuous improvement in disaster preparedness, aligning with the principles of resilience-based DRRM (Hollnagel, 2017).

Safety culture within organizations, identifying its key components such as attitudes, values, and competencies that influence safety behavior. Assessing safety culture, providing tools and techniques to measure how deeply safety is embedded in an organization's operations. This assessment can be crucial for disaster preparedness and response. It emphasizes the role of leadership in fostering a positive safety culture, showing how leaders' commitment to safety can influence the overall preparedness and response to emergencies. The importance of learning from past incidents and near misses. Continuous learning and adaptation are critical in evolving disaster management strategies and improving response mechanisms. The theory provide insights into how theoretical safety measures can be implemented in practical scenarios. This includes creating policies, training programs, and other interventions to enhance the safety culture.

Antonsen (2017) argues for the integration of safety practices into the routine operations of organizations, making safety a default rather than an afterthought, which is vital for effective disaster management. The theory advocates for an interdisciplinary approach to understanding and improving safety culture, combining insights from psychology, sociology, and management studies, which can be beneficial in a comprehensive disaster management strategy.

Synthesizing the latest thinking from neuroscience and psychology with the practice of safety management, mindful Safety shows how a much stronger safety culture can be built from the ground up. Case studies, applied research and practical exercises all demonstrate how attention, and the ability to focus, can significantly boost performance and resilience, whilst reducing human error and the number of safety incidents. Representing a new kind of safety thinking to meet contemporary challenges, the book covers four critical levels: the individual, the relational, the organizational and the societal. The approach can be successfully applied to the healthcare, road, rail, aviation and energy sectors for greater safety and performance.

The emphasis on self-care, strengthening relationships and learning from positives signals a clear shift in safety management thinking. This is not just an insightful, analytical approach, but an action-based one ready for implementation. Few approaches in the field tackle the subjects of sleep, fatigue, distraction, smartphone addiction, workplace stress and mental health with the same vigor, or provide the safety toolkit for fighting a pandemic (Langer, 2021).

Social connections, cultural values, and socio-economic status are recognized as crucial aspects influencing a community's ability to cope with disasters. The theory compares resilience across different contexts such as rural vs. urban areas, and across disasters in various locations (Kapucu et. al., 2013).

Moreover, stronger social and economic resources contribute to a system's ability to absorb shocks and adapt. Resilience acknowledges potential threats but also recognizes opportunities for learning and improvement after a disaster (Bakkensen et al., 2017). As such, existing measures of social resilience indicators are problematic as these do not necessarily account for the multi-faceted and dynamic nature of the indicators. Innovative and reliable measurement approaches are required to improve the incorporation of social resilience measures in disaster management policy and practice. The adoption of a surrogate approach, which has received limited attention in a disaster management context, can help to overcome the conceptual challenges inherent in measuring such indicators by capturing key facets of the target indicator and facilitate robust social resilience measurement. According to Saja et al. (2021), the identified potential measure of social resilience in policy and practice is to devise appropriate strategies for enhancing social resilience by regularly monitoring and updating the resilience status using locally available administrative data.

Prior to RA 10121, the disaster management framework in the Philippines was largely reactive and based on Presidential Decree No. 1566, signed in 1978 by President Ferdinand Marcos. This decree established the National Disaster Coordinating Council (NDCC), which was responsible for coordinating disaster response efforts.

Alexander (2002) defined disaster management as a process which involves systematically preparing, responding, and recovering from disasters to mitigate their effects on individuals, assets, and ecosystems. It involves various activities, such as disaster risk reduction, emergency response, and post-disaster recovery. Coordination among diverse agencies, governments, and communities is essential for ensuring an organized and timely response. The rising occurrence and intensity of natural and anthropogenic disasters in recent decades underscore the necessity for comprehensive disaster management strategies.

Disaster management is fundamentally based on disaster risk reduction (DRR), which seeks to prevent and mitigate the effects of disasters before their occurrence. Wisner et al. (2012) highlight the significance of recognizing community vulnerabilities and enacting strategies to mitigate risks associated with natural hazards, including floods, earthquakes, and hurricanes. Disaster risk reduction strategies encompass developing resilient infrastructure, enforcing land-use regulations, and public education on disaster preparedness.

Preparedness constitutes a vital component of disaster management, emphasizing the importance of planning and training to improve the capacity of individuals, communities, and governments to respond to emergencies effectively. Coppola (2011) defines preparedness as the development of emergency plans, the execution of drills, and the establishment of communication systems to facilitate a swift response during a disaster. Enhancing preparedness enables communities to mitigate the effects of disasters and enhances their recovery capabilities.

The response phase of disaster management encompasses prompt actions implemented to mitigate a disaster's impacts. These include search and rescue operations, medical aid provision, and relief supply distribution. Haddow et al. (2017) assert in that effective disaster response necessitates coordination among local, national, and international agencies. Efficient resource mobilization and effective communication are critical for ensuring that impacted populations obtain the necessary assistance.

The recovery phase of disaster management emphasizes the restoration of normalcy in communities impacted by disasters. Tierney (2014) asserts that recovery encompasses infrastructure reconstruction and mitigating social and economic consequences resulting

from disasters. Recovery efforts necessitate sustained commitment and significant financial resources. The objective is to enhance reconstruction by integrating disaster resilience into the process.

Community involvement is a critical component of disaster management. Community-based disaster management (CBDM) highlights the significance of local communities in mitigating disaster risks and facilitating response efforts. Shaw (2012) emphasizes that community involvement in disaster planning and preparedness enhances the effective utilization of local knowledge and resources. CBDM enables communities to assume control over their disaster management strategies, thereby enhancing their resilience.

Disaster management encompasses natural disasters and technological and human-made disasters, including industrial accidents, chemical spills, and terrorist attacks. Perry & Lindell (2007) noted that such disasters necessitate specialized response strategies, which include hazard identification, risk assessment, and the formulation of contingency plans. Integrating disaster management practices for natural and technological hazards is crucial for a comprehensive approach.

Meanwhile, Gupta and Nair (2011) discuss the function of national disaster management authorities in emphasizing their responsibilities in policy formulation, framework development, and leadership in disaster response initiatives. They reported that government plays a crucial role in disaster management by coordinating response efforts and allocating resources for recovery and effective governance, well-defined policies, and inter-agency collaboration are essential for the success of disaster management initiatives across all levels.

Kelman (2011) asserts that international cooperation is crucial to disaster management when disasters impact multiple nations or exceed a country's response capabilities. He argued that the international cooperation is essential in delivering relief and coordinating global response initiatives. Global frameworks, including the Sendai Framework for Disaster Risk Reduction (SFDRR) by Aitsi-Selmi et al. (2015), establish guidelines for international collaboration in disaster management.

Birkmann et al. (2013) examined the growing influence of climate change on the frequency and intensity of disasters has emerged as a critical issue in recent years. Their book illustrated the relationship between increasing global temperatures and the frequency of extreme weather events, including floods, hurricanes, and wildfires. Climate change adaptation has become a fundamental component of disaster management, emphasizing strategies that aim to reduce greenhouse gas emissions and strengthen the resilience of at-risk communities.

On the other hand, Alexander (2013) explained that the incorporation of technology into disaster management has transformed the prediction, monitoring, and management of disasters. The advancements in satellite technology, geographic information systems (GIS), and early warning systems have enhanced the capacity of governments and organizations to detect and respond to disasters more effectively. Technology facilitates disaster recovery by allowing for expedited damage assessments and resource allocation.

Landesman (2011) highlights the necessity of incorporating public health strategies into disaster preparedness and response frameworks. He revealed that public health constitutes a vital component of disaster management, especially following disasters when populations face heightened risks of disease outbreaks, malnutrition, and insufficient medical care. Access to clean water, sanitation, and medical supplies is critical for disaster prevention.

Shiwaku et al. (2016) emphasize the necessity of training emergency responders, public officials, and community leaders in disaster risk reduction and management within Disaster Education. Ongoing education and skill enhancement are essential to address the evolving challenges in disaster management, including the growing complexity of global disasters and the necessity for interdisciplinary strategies.

Manyena (2006) defines resilience as the capacity of individuals, communities, and systems to endure and recuperate from the impacts of disasters. Building resilience entails minimizing vulnerabilities, improving adaptive capacity, and establishing systems capable of rapid recovery from shocks.

Cutter et al. (2008) emphasized that disaster management requires the integration of various perspectives and resources to formulate a comprehensive and effective response to disasters. The participation of various sectors guarantees that disaster management strategies are comprehensive and effectively address the diverse impacts of disasters on society.

Towards the end of the 20th century, it was increasingly recognized that disasters are not natural (even if the associated hazard is) and that it is only by reducing and managing conditions of hazard, exposure and vulnerability that we can prevent losses and

alleviate the impacts of disasters. Reducing these two components of risk requires identifying and reducing the underlying drivers of risk, which are particularly related to poor economic and urban development choices and practice, degradation of the environment, poverty and inequality and climate change, which create and exacerbate conditions of hazard, exposure and vulnerability.

In their study, Wisner et al. (2004) emphasized the importance of addressing the root causes of vulnerability in disaster management. This work shifted the focus from simply responding to disasters to understanding the socio-economic factors that make specific populations more susceptible to disaster impacts. This approach laid the groundwork for modern Disaster Risk Reduction (DRR) strategies.

Shaw and Okazaki (2004) highlighted the importance of involving local communities in disaster preparedness and response. Over the years, community-based disaster risk reduction (CBDRR) has become a cornerstone of modern disaster management, empowering communities to take proactive steps in disaster planning and risk mitigation.

Mileti (1999) argued for integrating DRR into national and local policies, moving beyond ad-hoc emergency responses. This has resulted in the development of national disaster management agencies and the implementation of global frameworks like the Sendai Framework for Disaster Risk Reduction.

In the study of Coppola (2011), it traces the growing role of international cooperation in disaster management. The development of frameworks such as the Hyogo Framework for Action (2005-2015) and the Sendai Framework (2015-2030) have promoted a global approach to disaster risk reduction, encouraging nations to collaborate on preparedness, response, and recovery efforts.

Alexander (2002) documented the early use of Geographic Information Systems (GIS) in disaster prediction and response, while Nellis (2009) explored the impact of electronic monitoring and satellite technology on disaster management. Integrating real-time data, early warning systems, and predictive modeling has improved the ability to forecast disasters, allowing for better preparedness and more timely responses.

Mileti (1999) and Cutter et al. (2008) argued that data and scientific research should be used to inform disaster policies and practices. This approach has led to the adoption of risk assessments, hazard mapping, and vulnerability studies to develop more targeted and effective disaster management strategies.

Birkmann et al. (2013) highlighted how disaster management has adapted to the challenges posed by climate change, focusing on reducing greenhouse gas emissions, building climate-resilient infrastructure, and enhancing the adaptive capacity of vulnerable communities.

Landesman (2011) emphasized the need to address health risks, such as disease outbreaks, malnutrition, and trauma, in the aftermath of disasters. This has led to the development of disaster health management frameworks that ensure rapid access to medical care, clean water, and sanitation services during emergencies.

Shiwaku et al. (2016) argue that ongoing education and skill development are essential for effective disaster response. This has led to the establishment of specialized training programs for emergency responders, public officials, and community leaders.

Kapucu and Van Wart (2008) explored how public, private, and non-governmental organizations (NGOs) have worked together to respond to disasters more effectively. Improved coordination has resulted in faster resource mobilization, more efficient information sharing, and a unified disaster response and recovery approach.

Tierney (2014) emphasizes that disaster recovery involves more than rebuilding infrastructure. It also requires efforts to restore social networks, re-establish livelihoods, and rebuild communities more resiliently. He argued that recovery is a crucial phase in disaster management, and significant progress has been made in this area, particularly in addressing the social and economic impacts of disasters.

Clarke (2002) explored the role of public-private partnerships in disaster management. Over the years, businesses have become critical partners in disaster preparedness, response, and recovery, providing resources, expertise, and infrastructure to complement government efforts. Public-private partnerships have enhanced the speed and efficiency of disaster response efforts.

Smith (2013) highlights the development of sophisticated warning systems that use satellite data, sensor networks, and predictive models to provide advance notice of impending disasters. Early warning systems have substantially improved, improving disaster preparedness and response. These systems have been critical in saving lives and minimizing the damage caused by natural hazards.

The ability of a community to measure and assess its own characteristics (i.e., connectedness, risk and vulnerability, procedures on disaster planning, response and recovery, and available resources) contributes to the improvement of its capacity to better deal with, survive, and recover from disasters (Añasco et al., 2021).

Although the causes of unsuccessful management of disasters and emergencies may vary, individuals' characteristics, such as lack of confidence and emotional distractions because of uncertainty about the safety issues, may also play a significant role. Besides educational initiatives, other measures, which guarantee the safety of healthcare providers and their family members, should be established and implemented (Sultan et al., 2020).

It is indeed a very challenging situation for the disaster personnel to face and handle disasters and calamities to secure the community according to the given mandate of PDDRMO. In performing their duties, particularly those who are in charge in the operation during a disaster the pressures, stress and sometimes unexpected situations cause trauma affecting their well-being, effectiveness and efficiency in performing their tasks.

Preserving victim's lives by aiding others in time of disaster is their primary goal to pursue their great undertaking. However, there are situations that they could not perform effectively because of some factors such as lack of trainings, equipment and anticipations on their part that their lives might be at risk. Therefore, there is a need for our government to address these problems to ensure excellent performance of our disaster personnel particularly in time of adversity.

Moreover, prospective disaster risk management activities address and seek to avoid the development of new or increased disaster risks. They focus on addressing disaster risks that may develop in future if disaster risk reduction policies are not put in place. Meanwhile, corrective disaster risk management activities address and seek to remove or reduce disaster risks which are already present and which need to be managed and reduced now. Compensatory disaster risk management activities strengthen the social and economic resilience of individuals and societies in the face of residual risk that cannot be effectively reduced (Disaster Risk Reduction and Disaster Risk Management ‧NDRRMC‧, 2021).

National-level plans need to be specific to each level of administrative responsibility and adapted to the different social and geographical circumstances that are present. The time frame and responsibilities for implementation and the sources of funding should be specified in the plan. Linkages to sustainable development and climate change adaptation plans should be made where possible (United Nations Office for Disaster Risk Reduction ‧UNODRR‧, 2007).

Countries have made significant strides in disaster risk management, shifting from reactive responses to proactive prevention and preparedness. This approach has led to a reduction in loss of lives and mitigation of economic impacts. A recent evaluation by the Independent Evaluation Group (IEG) validates the pivotal role played by the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR) in this progress.

In the aftermath of the devastating February 2023 earthquakes which hit Türkiye and Syria, the Global Rapid post-disaster Damage Estimation (GRADE) methodology made it possible to conduct a rapid preliminary assessment of the direct physical damages, thus informing appropriate, timely and efficient courses of action to take, and enabling the prioritization of resources where most needed (Khalil, 2023).

Disaster preparedness plans reduce future damages, but may lack testing to assess their effectiveness in operation. The local governments were found highly vulnerable to tropical cyclone and flood while vulnerable to earthquake, drought, and landslide. They were partially prepared regardless of profile, but the coastal, middle-earning, most populated, having the least number of villages, and middle-sized had higher levels of preparedness. Those highly vulnerable to earthquake and forest fire were prepared, yet only partially prepared to flood, storm surge, drought, tropical cyclone, tornado, tsunami and landslide.

The diverse attitude of stakeholders, insufficient manpower, and poor database management were the major problems encountered in executing countermeasures. Appointing full-time disaster managers, developing a disaster information management system, massive information drive, organizing village-based volunteers, integrating disaster management into formal education, and mandatory trainings for officials, preparing for a possible major volcanic eruption and crafting a comprehensive plan against emerging emergencies like the COVID-19 pandemic may lead to a 360° preparedness (Dariagan et al., 2021).

Over 175 million youth are affected by disasters each year with increased vulnerability that often receives insufficient attention. The impact of displacement, loss of homes, and separation from families and community has a significant effect on children including risk of interrupting their developmental trajectory. Response and recovery for children after catastrophic events depends on degree of exposure, previous trauma history, age, gender, and, importantly, support by family, school, and community. In

disaster response, more attention is given to addressing problems than supporting components leading to increased self-efficacy and resilience.

A dynamic understanding of ways to support resilience in children and adolescents following disasters by considering not only the capacity for positive adaptation to threats, but also ways to strengthen social infrastructure at the community level. A program integrating mental health consultation and services into schools following disasters is described to support resilience by building social capital. Trajectories of posttraumatic stress symptoms in children following disasters will be presented that are consistent with resilience theory. Emphasis is placed on both individual and community resilience efforts with disasters to support youth recovery (Osofsky & Osofsky, 2018).

As for community preparedness, Castañeda et al. (2020) cited that gender emerges as the most relevant variable. Educational level and income are variables with the greatest impact in workplace preparedness. The importance of studying and implementing preparedness activities in other contexts such as community and work. Also, strategies should focus on less prepared groups that may be more vulnerable to the effects of natural disasters.

Sultan et al. (2020) explored the factors that determine healthcare workers' willingness to work during disasters and public health emergencies, appropriate knowledge and skills to confidently manage an incident and the assurance of their families' safety are two decisive factors. Future contingency and disaster plans should include detailed information concerning all these important factors.

In conclusion, this study centers on the disaster risk reduction and management personnel in dealing with community resilience and effective crisis response. While challenges such as public compliance and resource constraints persist, collaborative partnerships and continuous training serve as essential strategies for overcoming these obstacles. Furthermore, strengthening institutional support and promoting proactive community engagement are key to enhancing the quality of service. Disaster risk management efforts can be more sustainable and impactful in reducing disaster risks and safeguarding communities by addressing these factors.

3. Methodology

This section presents the research design, research environment, research participants, research instrument, research procedures, and collection of data, analysis of data, ethical considerations, and trustworthiness of the study.

3.1 Research Design

This qualitative study utilized a transcendental phenomenological approach to explore the experiences of disaster risk reduction and management personnel. Transcendental phenomenology was a philosophical and methodological approach to research and inquiry originally developed by Husserl (1931) and later adapted into practical research methods by Moustakas (1994). The approach was foundational in the field of phenomenological psychology and qualitative research.

According to Husserl (1931), the concept of transcendental phenomenology was a rigorous science aimed at exploring the structures of consciousness and the essence of experience. Husserl's method involved epoché, where the researcher bracketed out their preconceptions about the world to focus purely on the phenomena as they were experienced. This led to the phenomenological reduction, allowing the researcher to explore the essential structures of experiences. Husserl's primary goal was to uncover the foundations of human knowledge and the constitution of objects in consciousness.

Moreover, Moustakas (1994) refined the approach to make it accessible and applicable to psychological and educational research. Moustakas emphasized the phenomenological research method, which involved identifying the essence of human experiences concerning a particular phenomenon as described by participants. This methodology was particularly prominent in qualitative research, where understanding the depth of personal experiences and their meaning was crucial.

As a research methodology, qualitative research method infused an added advantage to the exploratory capability that researchers needed to explore and investigate their research studies. Qualitative methodology allowed researchers to advance and apply their interpersonal and subjectivity skills to their research exploratory processes (Alase, 2017). This qualitative approach was considered appropriate when there was a need to hear participants' voices and understand the issue at hand in depth.

The study collected data through the use of a researcher-made interview guide for in-depth face-to-face interviews with the different DRRM Personnel in the Province of Guimaras. The research design was appropriate in gathering the necessary data on

the experiences of disaster risk reduction and management personnel. The data gathered were processed through thematic analysis to extract the themes that represented the problem and used them as bases for generating the implications for practice.

3.2 Research Environment

This study was conducted in the Province of Guimaras. It is an island province located in Western Visayas, Philippines *(Please refer to Appendix D for the Location Map)*. It has a land area of about 604.57 km^2, a population of 174,613 with a density of 289 persons/km^2, and an average annual population growth rate of 1.33%. Fishing, farming, and tourism were the major livelihoods of its 40,575 households. The province is composed of five (5) municipalities: the Municipality of Buenavista, Municipality of Jordan, Municipality of Nueva Valencia, Municipality of Sibunag, and Municipality of San Lorenzo.

The Municipality of Buenavista is considered as the largest town in Guimaras, is a gateway to the island paradise. Located at the northern tip, it boasts easy access from Iloilo City and Negros through its port. Beyond its role as a transportation hub, Buenavista offers scenic beauty with picturesque beaches, waterfalls, and historical sites mentioned by national hero Jose Rizal in his travels.

Likewise, the Municipality of Jordan is strategically located across Iloilo City with a distance of only 1.5 nautical miles, serves as the gateway to the island of Guimaras. This municipality is the provincial capital and is known for its commercial significance due to its proximity to Iloilo City. While Jordan may not have the extensive beaches like Nueva Valencia, it offers a different kind of charm. Tourists can explore historical sites like the old municipal building, churches, and ancestral houses that speak volumes about the municipality's rich history. Moreover, adventure seekers can enjoy spelunking adventures at the Roca Encantada (Enchanted Rock) cave or unwind at the resorts and beaches found within the area.

Moreover, Municipality of Nueva Valencia is a haven for both nature lovers and history buffs. This charming municipality is famed for its production of the sweet and flavorful Guimaras mangoes, but it also boasts several stunning beaches, including the white sand and clear waters of Guisi Beach and the cream-colored shores of Alubihod Beach. For those seeking underwater adventures, the Taklong Island National Marine Reserve offers pristine coral reefs and diverse marine life, perfect for snorkeling and diving. Nueva Valencia also boasts historical landmarks like the centuries-old St. Vincent Ferrer Church with its beautiful Baroque facade and the Trappist Monastery, a peaceful retreat where visitors can buy local delicacies.

Furthermore, the Municipality of Sibunag, a municipality on Guimaras Island in the Philippines, occupies roughly a fifth of the island's land area. While not the capital, Sibunag boasts its own share of natural beauty with coastal and inland barangays. Its main island and surrounding islets offer a glimpse into island life, and the local government prioritizes disaster risk reduction measures to keep this community safe. While information on specific attractions is limited, Sibunag's proximity to other Guimaras hotspots suggests potential for exploring beaches, historical sites, and of course, the famed Guimaras mangoes.

Lastly, the Municipality of San Lorenzo, a municipality on the island of Guimaras in the Philippines, is a place known for its scenic landscapes and agricultural abundance. Established in 1995, this young municipality is a result of merging parts of Jordan and Buenavista. San Lorenzo boasts rolling hills, farmlands, and a coastline, offering a beautiful backdrop for a relaxing visit. The municipality is also known for its wind farms, which generate clean energy for the island.

3.3 Research Participants

The study used the purposive sampling scheme in the identification of the research key participants. In this scheme, ten (10) participants were purposefully selected to provide the best information and contribution to the answers of the problem. These participants were chosen from DRRM sectors in five (5) Municipalities in the Province of Guimaras, who had gained insights about the disaster risk reduction programs in the province. The participants had to have experience in disaster response and must have rendered at least three (3) years in active service as personnel in the disaster risk reduction and management office. Two (2) participants came from each Municipality, and all were individually interviewed.

3.4 Research Instrument

The research instrument used in the conduct of this qualitative transcendental phenomenological study was the researcher-made interview guide *(Please refer to Appendix B for the Interview Guide)*. The interview guide was open-ended and divided into three parts. The first part of the interview guide consisted of five (5) questions, which discussed the participants' experiences with the implementation of disaster risk reduction and management programs. The second part consisted of five (5) questions, which addressed the challenges encountered by the participants during the implementation of disaster risk reduction and management programs. The third part consisted of five (5) questions, which delved into the participants' aspirations to improve their quality of service.

Moreover, the research interview guide instrument was written in the English language and translated into Hiligaynon, a local dialect. This translation was examined, reviewed, corrected, validated, and approved by the members of the panel chaired by the Dean of the Graduate School of this university *(Please refer to Appendix C for the Validation of the Interview Guide)*. It consisted of open-ended questions as major guides in the conduct of the interviews, while probing questions were implicitly embedded within.

3.5 Research Procedures

3.5.1 Data Collection

Prior to data gathering, the researcher sought approval from the respective heads of the agency of every respondent through a transmittal letter, requesting permission to conduct the research study in their respective Municipality. The detailed plan of the study was also attached to the request. After the request was approved, the data collection process commenced.

Once the intent to conduct the study was approved by the respective heads of the agency of every respondent, and the identification of the key participants was completed, the potential participants were contacted to confirm their participation, with the assurance of confidentiality of information. Additional participants were also identified as buffers in case of the unavailability of the primary participants. After the tedious process of contacting the participants, the ten (10) participants confirmed their participation and availability. The researcher set the schedule for the face-to-face interviews with the participants using the interview guide. Prior to the actual interviews, the participants were informed of the purpose and details of the study and were assured of their confidentiality and anonymity. The interview lasted forty (40) minutes to one (1) hour. The researcher also requested permission from the participants for the audio recording of the interviews and for them to affix their signatures to the Informed Consent Form for Confidentiality. The data provided by the participants in the in-depth interviews were audio recorded, transcribed into text, and coded to determine the common patterns or themes.

The audio recordings, with the participants' consent, were used to capture the exact details of the discussion for accurate interpretations and analyses of data. In addition, during the coding process, the data were simplified by assigning descriptive labels to particular ideas that emerged as interesting during the coding process, and the researcher then began interpreting the data, looking for meaning. Coding required an analytic lens, which varied for each researcher depending on what they were looking for during the coding process.

3.5.2 Data Analysis

The data gathered from this qualitative study came from the responses of participants' face-to-face interviews using the researcher-made interview guide. Data analysis was conducted to look for patterns that emerged from the recorded responses. It involved the preparation and organization of data for analysis and the reduction of data into themes through coding. To analyze and cluster the participants' responses and identify common themes for interpretation, thematic content analysis was used. The recorded responses of the participants were organized and analyzed deductively to obtain diverse themes that were relevant and specific to individual categories. Thematic analysis was the process of identifying patterns or themes within qualitative data. Furthermore, significant statements, recurring terms, topics, or ideas were identified and organized into potential prospective categories and provisionally coded. An iterative approach was taken, where data and categories were systematically reviewed until the most commonly cited concepts were identified, and a logical and clear pattern emerged.

The thematic content analysis was used to inspect themes that transpired during the analysis of interview responses for the purpose of measuring the frequency of themes and similarities between the participants' use of themes.

3.6 Ethical Considerations

Conducting qualitative research on the experiences of disaster risk reduction and management personnel entailed ethical obligations to prevent harm and maximize benefits. The study focused on the experiences of the DRRM Personnel and emphasized the paramount significance of ethical conduct. This section outlined how the research followed the basic principles of beneficence, non-maleficence, justice, and autonomy.

3.6.1 Beneficence. The main goal of the study was to make a positive contribution to the well-being of DRRM personnel by promoting improved working conditions and support systems. The research aimed to raise awareness of the unique difficulties and requirements faced by these individuals by offering a platform for their perspectives, which could potentially impact positive policy and systemic transformations. Moreover, it showcased a dedication not just to comprehending their experiences but also to utilizing that expertise to effectuate beneficial modifications in DRRM initiatives.

3.6.2 Non-Maleficence. The research focused on limiting negative consequences. Participation in the study was optional, and it required a thorough informed consent process that provided detailed information about the study's objectives, potential risks, and the rights of participants, including the option to withdraw without facing any negative repercussions. Data confidentiality was maintained by implementing anonymized data collection and storage protocols. Sensitive subjects were handled with care and compassion, and participants were provided with post-discussion analysis and emotional support as needed.

3.6.3 Justice. The research aimed to achieve a just and impartial approach. The recruitment efforts sought to select a varied sample that accurately reflected the demographic composition of DRRM personnel within the jurisdiction. The selection process relied on obtaining informed consent and avoided using preconceived criteria that could introduce bias. Data analysis was mindful of power disparities, with the objective of genuinely portraying the experiences of the participants.

3.6.4 Autonomy. Ensuring participants' autonomy was upheld at every stage of the study process. Consent forms used clear and easily understandable wording, emphasizing the participants' right to make well-informed choices. The avoidance of coercion or undue influence was rigorously maintained. Participants were given autonomy in determining the pace and content of the interviews, and their input on the research results was actively sought to ensure accuracy and authenticity.

3.7 Trustworthiness of Research

The trustworthiness of this qualitative study centered on having reliable and valid data, as demonstrated by the research findings. The trustworthiness of research studies was ensured when the findings and results gathered possessed the elements of credibility, dependability, transferability, and confirmability.

3.7.1 Credibility

The study was deemed reliable due to its credible execution and inclusion of the firsthand testimonies and experiences of the primary sources. The study's credibility was established by the transcribed responses of the informants, which were gathered through interviews and provided valuable insights into the problem. The researcher interpreted these findings without any bias.

3.7.2 Transferability

A qualitative study might be considered trustworthy if it is transferable, meaning that its findings can be applied to other contexts. This case study was inherently replicable, as it could be applied or repeated by anyone interested in investigating the ongoing nature of conducting the same study or conducting further research based on the outcomes and findings. The data collected from this study served as the foundation for future studies focused on the experiences of DRRM personnel in the implementation of disaster risk reduction and management programs. The findings were used as the basis for future research questions that could be applied. The transferability of this study referred to the ability of other researchers, whether conducting comparable or related studies, or studies in different contexts, to use the results and findings obtained from this research.

3.7.3 Dependability

Dependability in research referred to the consistency of data over time and across varying settings. This was an assessment of the excellence of the combined procedures for gathering data, analyzing data, and developing theories. The reliability and credibility of the study's findings were ensured through meticulous documentation of records, interview guides, and transcripts. Additionally, the development of clear meanings and themes allowed for an audit trail and scrutiny by other researchers. The impartial scrutiny of records and documentation by certain researchers confirmed the acceptability and reliability of this investigation. This study was considered reliable, as even if other researchers conducted a verification study using the same informants, the findings and outcomes would remain consistent. A reliable study had to be both consistent and accurate. Therefore, it was imperative to maintain accurate documentation and meticulous record-keeping of all research data, documents, and transcripts to ensure the reliability and credibility of any research endeavor.

3.7.4 Confirmability

Confirmability in this study was rigorously upheld, ensuring that the results, findings, and suggestions were solely derived from objective inquiry and not influenced by the researcher's biases. The documents and records could be traced by other researchers through analyzing the responses obtained from the semi-structured interviews. The papers provided a sufficient audit trail to enhance the study's credibility. If other researchers could verify the results, findings, and suggestions by examining the documents and interview records used in the study, then it was possible to establish their credibility.

The researcher utilized the themes derived from the participants' narratives and experiences as a means of verifying and accessing information in a convenient and accurate manner. The focus was on the core concept of confirmability, which was rigorously adhered to, as it largely pertained to the level of objectivity in the conclusions produced by the researcher. The study was conducted with objectivity, ensuring that the conclusions were derived solely from the participants' responses and were not influenced by the researcher's biases or personal preferences.

3.8 Bracketing and Reflexivity

In this study, reflexivity required the researchers to engage in introspection about their biases, experiences, and the broader socio-cultural context influencing the research process. This involved critically examining how their personal backgrounds, experiences with disasters, and preconceptions about disaster risk reduction work might have shaped their approach to the study, from the formulation of research questions to the interpretation of data. It also required an awareness of the power dynamics at play, particularly given the potentially traumatic experiences of the participants. Researchers had to remain mindful of how their interactions with participants could have influenced the responses given, striving for a balance between empathy and objectivity. Acknowledging these influences was crucial for ensuring the credibility and ethical integrity of the research, fostering a deeper understanding of the complex realities faced by disaster risk reduction and management personnel.

4. Results and Discussions

4.1 Experiences of the Participants in the Implementation of Disaster Risk Reduction and Management Programs

4.1.1 Positive Experiences

4.1.1.1 Empowering Community Resilience.

Participants reported a significant sense of pride and fulfillment in their contributions to community resilience via disaster risk reduction and management programs. Their participation in training, planning, and preparedness activities fostered a sense of empowerment. Implementing public education and distributing disaster awareness materials provided communities with essential tools for resilience.

(We just don't need to rely on the government, as a member of the community we should learn how to defend ourselves and to be alert. We should not just rely on the personnel to respond and we need to prove that we could stand on how to save ourselves, we should not just rely for the help of others). (Participant 1)

(It feels great that whatever we impart or educate them on, they receive it well. So we can stand proud, knowing that we helped capacitate them, right? One example would be with our barangay tanods. Before, they weren't as participative or active, but because we were there to supply and join them for outside exposure, it became rewarding). (Participant 3)

(I consider the unique practices here as the guidelines that people should follow in times of calamities. So, we produce IEC materials, posters, and brochures to give or inform the communities on what to do during disasters). (Participant 10)

The theme indicated that participants' involvement in Disaster Risk Reduction and Management (DRRM) programs significantly enhanced the resilience of their communities. Their engagement in preparedness training, public education, and disaster planning enhanced the community's ability to manage crises. These programs enhanced community self-sufficiency during disasters by providing residents with essential survival skills and knowledge.

Self-efficacy theory is pertinent to this theme, highlighting the significance of individual confidence in performing required actions in challenging circumstances (Bandura, 1997). The training and education offered to participants and community members enhanced their confidence in effectively managing disaster-related risks. This increased self-efficacy enabled individuals to respond confidently in crises and underscored the overarching theme of community resilience. Individuals who perceive themselves as capable of contributing to disaster preparedness and response are more inclined to engage in proactive measures.

Burton et al. (2015) highlighted the significance of community empowerment in the context of disaster risk reduction (DRR) strategies. Research indicates that communities with localized, customized plans that engage residents in resilience-building initiatives demonstrate enhanced recovery from disasters. The research found that community-based resilience frameworks are essential for mitigating disaster risks.

4.1.1.2 Satisfaction of Effective Crisis Response.

Numerous participants expressed a sense of achievement regarding their capacity to respond effectively to crises. The responders derived significant satisfaction from their actions, which included providing first aid, transporting patients, and clearing roads, all

of which directly contributed to saving lives. Their continuous availability provided a profound sense of purpose and fulfillment in their roles as first responders.

(We can't just wait until a disaster happens to act. We need to plan ahead so that we can lessen the impact and casualties. It would be best if we could achieve zero casualties). (Participant 4)

(During the onset, like Typhoon Odette, something really intense happened to us. I felt that time, 'Oh no, we might not ready,' but that was when we saw that we attained zero casualty, we were able to respond, and the people saw us, they felt our presence. When times after Odette, although a lot of financial aid came in, that was when we realized that even the barangay community seemed to say 'thank you!' We thought, 'Ah, they felt it because they saw our help during that time.' We had families that we evacuated at 12 midnight or 11 o'clock, and it was really tough. Then we had people coming back to say 'Ma'am, thank you so much during Odette.' We didn't realize it at the time because, of course, in our minds, we were just doing our job and implementing it). (Participant 7)

(Our duty here is 24/7, we work in shifts of 2 days on, 2 days off. It's more fulfilling, don't you think, when our response can help others? When you can help yourself and others in the province). (Participant 8)

The emergent theme indicated a significant sense of accomplishment among the participants regarding their capacity to respond effectively to crises. Their efficient actions, facilitated by continuous availability, provided a profound sense of purpose and fulfilment. Their awareness that their actions directly contributed to saving lives and reducing disaster impacts strengthened their commitment to their roles as first responders.

The motivation-hygiene theory offers an understanding of the satisfaction reported by participants in this context. The theory identifies achievement, recognition, and the intrinsic rewards associated with meaningful work as essential motivators contributing to job satisfaction (Herzberg, 1966). In disaster response, the participants' capacity to observe the immediate results of their efforts corresponds with Herzberg's motivators, fostering a significant sense of professional purpose and fulfillment.

Singh and Bhardwaj (2020) found that participants reported satisfaction with the rapid response efforts facilitated by established community networks and localized risk management frameworks. Communities participating in disaster risk reduction communication projects expressed satisfaction regarding understanding and applying safety protocols during crises.

4.1.2 Negative Experiences

4.1.2.1 Hurdles in Promoting Public Compliance.

Participants often experienced challenges in persuading the public to adhere to evacuation orders and safety protocols during disasters. Despite efforts to raise awareness, certain community members exhibited resistance or delayed action, resulting in considerable risks. The absence of compliance posed significant challenges in high-risk scenarios where prompt action was essential for preserving lives.

(The difficulties usually happen during evacuation. The people don't evacuate immediately unless they saw themselves at eminent danger. This is so because they go after their situation once they were on the evacuation center and they can't leave their live stocks at home). (Participant 1)

(First of all, let's talk about our response to El Niño. This problem is largely caused by us humans. It irritates me when people complain about the heat but then go and burn things. I tell them that's exactly why it's so hot! They don't seem to understand the consequences of their actions. They cut down trees and then complain about the heat. I don't understand why Filipinos always complain and expect the government to solve everything). (Participant 2)

(So we face during disasters is convincing people to evacuate, whether it's a pre-emptive or forced evacuation. It's difficult to make them comply, especially if the barangay officials are not serious about it. And then, because we're Filipinos, they tend to exaggerate their needs, especially when they know there's something to gain. Our actual list is one thing, but when it comes to the actual situation, the numbers increase. We don't know what the real reasons are for this). (Participant 7)

The emergent theme highlighted the participants' frustration regarding the challenges in achieving community members' compliance with evacuation orders and safety protocols during disasters. Despite comprehensive public awareness initiatives and educational efforts regarding the significance of prompt action, numerous community members exhibited resistance or procrastination in adhering to these guidelines. The non-compliance presented significant risks, necessitating prompt decision-making and immediate action to preserve lives.

The Theory of Planned Behavior (TPB) elucidates participants' difficulties in fostering public compliance. The Theory of Planned Behavior posits that an individual's actions are shaped by their attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). Certain community members may have exhibited a diminished sense of urgency or failed to recognize the seriousness of the risk, which influenced their attitudes and, consequently, their compliance. Cultural or social norms within the community may have influenced the decision to oppose evacuation orders.

Ostadtaghizadeh et al. (2014) emphasized that, despite robust governmental frameworks, communities frequently encounter challenges in ensuring individual compliance with preparedness protocols. These challenges are primarily attributed to low risk perception and insufficient ongoing public education. They identified public compliance as a significant obstacle in coastal regions, where evacuation was delayed due to complacency and misinformation.

4.1.2.2 Inadequate Resources and Manpower Constraints.

A common theme among participants was the significant challenge posed by limited resources and inadequate workforce. They frequently encountered circumstances in which essential equipment was either lacking or inadequate, and they needed to be more staffed to manage disaster response effectively. Their dedication was hindered by constraints, resulting in feelings of being stretched thin and frustrated as they were unable to address the needs of the communities they served fully.

(Sir, there have been significant changes in our DRRM office recently. Communication was very difficult before, and we had limited equipment and tools). (Participant 1)

(Okay, so regarding our resources, I think the lack of equipment, well, sir, what I've experienced is that when we lack manpower, it's difficult to manage resources and if there's a lack of communication, that's the hardest part). (Participant 2)

(My first real challenge was getting support. Actually, not all local governments and leaders are knowledgeable about Disaster Risk Reduction and Management (DRRM)… given the fact that DRRM had funding, you were a bit of an eyesore. It's because you had more leeway. While others were fighting over their budgets and how to implement programs, you had a special allocation. It's mandated by law that 5% should be given to you, and we were given the task to lead the council on how to budget that. That's where the challenges lay, in getting support... 'When we talk about calamity funds or DRRM, their reasoning is, 'Oh, it's not necessary or something,' which was quite negative unless, of course, they had no idea). (Participant 3)

The emergent theme highlights a significant challenge in managing disaster responses from insufficient resources and inadequate staffing. These constraints frequently resulted in teams being overextended and unable to fulfill the complete requirements of the circumstances they encountered. Critical equipment needed to be improved, and the personnel shortage hindered timely and effective emergency responses.

This theme is consistent with resource dependency theory, which asserts that organizations depend on external resources for operation, and their effectiveness depends on their capacity to obtain and manage these resources (Pfeffer & Salancik, 1978). The availability of sufficient equipment and personnel significantly influences the effectiveness of response teams. The scarcity of these critical resources presents substantial operational challenges for organizations. This theory underscores the susceptibility of disaster response initiatives when resource acquisition is constrained, highlighting the necessity for external assistance and collaboration to secure essential resources for effective disaster management.

Walton et al. (2021) emphasized insufficient resources and personnel for effective response to recurring natural disasters. The shortage impeded the execution of effective disaster risk reduction strategies, resulting in increased vulnerability for communities. The challenges of obtaining funding and qualified personnel were examined, resulting in increased vulnerability during large-scale disasters. The absence of long-term sustainability and the need for resource maintenance exacerbate the problem.

4.2 Addressing the Challenges Encountered in the Implementation of Disaster Risk Reduction and Management Programs

4.2.1 Collaborative Partnerships for Resource Management.

Participants highlighted the significance of collaboration with various agencies, municipalities, and NGOs in addressing resource deficiencies. They emphasized that partnerships facilitated the acquisition of essential equipment and personnel for effective disaster response.

(Ah, okay, so that's why we're able to collaborate effectively with other agencies. Just like with the BFP, sir, we have many programs together. It's them who conduct, sir, coastal clean-ups together with the coast guard, PNP, and Navy. They prioritize tree planting, sir). (Participant 2)

(Maybe it's the strong participation and support of the Disaster Risk Reduction and Management Council, right? There's strong participation from the barangays, schools, and political leaders because collaboration is key. If we just do things within our office and don't coordinate and collaborate with the other agencies involved in disaster management, we accomplish less. One thing we are proud of here, is that we have a good relationship with other LGUs and other DRRM offices. If we lack resources, we just call or text, and we help each other). (Participant 6)

(Well, not really, Sir. For example, even if we lack equipment, we find a way. You know, if we lack equipment, we can't handle it, so we call the province for help. It's not like we're saying we're really struggling because, of course, if we don't have it, we can borrow from others. It's like the whole town is helping each other. And if there are many equipment needed and we can't handle it immediately, we call for help. They help us because that's what we lack). (Participant 9)

The emergent theme highlighted the essential role of collaborative partnerships with agencies, municipalities, and non-governmental organizations (NGOs) in addressing in overcoming resource shortages during disaster response efforts. The partnerships facilitated the pooling of equipment, workforce, and expertise, thereby enhancing their capacity to respond to crises. Collaboration among various organizations could enhance resource sharing and improve the coordination and preparedness of disaster relief efforts.

This theme is underpinned by social capital theory, which posits that networks of relationships offer valuable resources for collective action (Putnam, 2000). In disaster management, collaborative partnerships establish a network characterized by trust, reciprocity, and cooperation among organizations. These partnerships improve the collective capacity to address disasters by facilitating access to shared resources and expertise. Social capital theory elucidates the role of relationships in enhancing disaster response effectiveness, as network strength facilitates improved coordination and resource allocation.

Cutter et al. (2015) emphasized that efficient resource management in disaster situations facilitates improved allocation of critical supplies and services, thereby alleviating the impact of manpower deficiencies. The findings highlighted the significance of cross-sector partnerships in enhancing collaboration between governments and local communities to reduce disaster impacts.

4.2.2 Capacity Building through Continuous Training.

Participants identified regular training and drills as crucial for equipping both responders and the community for disaster preparedness. Ongoing education, including first aid workshops and disaster simulations, enhanced confidence and preparedness within the teams. The participants indicated that continuous capacity building through these programs not only maintained their skills but also promoted a culture of preparedness within the community.

(Training sir, because if there are more trainers in the barangays most of their responders are Tanods and BHWs. Every barangay should have someone who knows how to do in case there is a disaster. They already know because it is related to our work more on disasters). (Participant 4)

(I think the secondary programs have been the most beneficial to the communities. In the municipality of Sibunag, a pilot training program was conducted for 5-10 barangays on operational readiness protocols. This included training on early warning systems, search and rescue operations, and relief distribution. Out of the 14 barangays, Sibunag chose Barangay Sabang as the pilot barangay because it's a coastal barangay. This training has been very beneficial as it helped the barangay develop its own operational readiness protocol for early warning systems. They now have personnel in charge of relief distribution, evacuation operations, and search and rescue. This program has been effective because the LGU can now oversee what the barangay is doing without having to micromanage them. The LGU trained barangay officials and volunteers on how to respond to early warnings and follow the established protocols. In addition to planning, we also conducted simulation exercises. These exercises have been very beneficial and showed the effectiveness of the program conducted by the agencies). (Participant 5)

(Every month, sir, it should be like that. In other words, they conduct training every month. They should call the barangay captains every month, sir. They should always participate in drills). (Participant 9)

The emergent theme underscored the significance of consistent training and drills in preparing the community and responders for disaster situations, enabling them to overcome the perceived obstacles to disaster preparedness. They highlighted the necessity of ongoing education to improve the confidence and preparedness of all participants. These training programs promote a culture of preparedness within the community. Consequently, response teams and the public were better prepared to manage crises, leading to a more efficient and coordinated disaster response.

The focus on ongoing training is consistent with organizational learning theory, which asserts that organizations enhance their performance through experiential learning and continually updating knowledge and skills (Argyris & Schön, 1978). Disaster response organizations enhance their methodologies by consistently engaging in training and simulations, which ensures that responders and communities are adaptable and prepared for emergencies. Fostering a culture of continuous learning enhances the capacity of disaster management teams to address unforeseen challenges, thereby improving the overall effectiveness of disaster preparedness and response initiatives.

The United Nations Environment Programme (2022) indicated that ongoing training is crucial for enhancing the capabilities of local disaster risk reduction actors. This training encompasses technical and soft skills, including leadership and communication, essential in disaster response operations. The case study indicated that this capacity building and training provided community members with the skills required to manage disaster risks independently, even with constrained resources.

4.3 Aspirations of the Participants to Improve the Quality of Service

4.3.1 Institutional Support and Resource Sustainability.

Participants expressed a significant need for enhanced institutional support, especially regarding financial resources and staffing levels. Their expectation was for enhanced government support to mitigate the persistent shortages of equipment and personnel, thereby substantially improving disaster response capabilities.

(Additionally, we need to equip them with additional knowledge and resources, especially life support equipment. Last week, they received BLS training, but an actual AAT is still lacking. Hopefully, the LGU or other organizations will procure these resources soon). (Participant 5)

(Maybe, political support and the support from other agencies. You know you can manage as a superior here, as a head I can manage all my staff and personnel but as I said we could not do more than that especially in Disaster Management we could also ahhh relying on the other agencies and other departments especially political leaders. So, if we lack support from our municipal leaders' political leaders so, our response is also limited and if there is no cooperation among all the council among all the members of LGU and even in Barangay level). (Participant 6)

(We still lack some equipment here, so that's why we're really pushing Sir Mark and the mayor to allow us to purchase an AED. We have patients who really need an AED, for example, when we have drowning patients. An AED would have been a big help. I hope we can finally get the AED that we've been wanting. Of course, I also want our equipment here to be complete). (Participant 8)

The emergent theme indicated a significant requirement for enhanced institutional support. The participants highlighted those persistent shortages of critical resources, including equipment and personnel, significantly hindered their capacity to respond effectively to disasters. Increased government assistance is essential for mitigating these shortages and maintaining the sustainability of disaster response operations over time. Participants sought improved stability and sustainability in resource management, significantly increasing their ability to support their communities.

This theme is directly linked to sustainable development, which focuses on fulfilling current needs while ensuring that future generations can meet theirs (Brundtland, 1987). According to theoretical principles, sustainable resource management requires that response teams be provided with sufficient and ongoing funding, equipment, and personnel, which are essential for their effective operation over time. The participants' request for enduring institutional support highlights the necessity for sustainable strategies that ensure disaster management efforts remain resilient and effective amid continuous challenges.

In the same study, Singh and Bhardwaj (2020) highlight the necessity of ongoing institutional support to guarantee the long-term effectiveness of disaster risk reduction initiatives. Their study demonstrated that regions with consistent government support performed better in disaster response and recovery than those receiving sporadic assistance.

4.3.2 Fostering Proactive Community Engagement.

The participants expressed a desire for a more proactive approach from the communities they serve. They aimed to enhance participation in disaster preparedness programs, highlighting that a more engaged and informed public would facilitate smoother and more effective disaster response. Strengthening community relationships is believed to encourage individuals to assume greater responsibility for their safety, thereby improving overall resilience to disasters.

(At least, we saw in our first year that they became more proactive. And it's different when you go down to the barangay and the community, it's like you're opening doors for them because they're no longer afraid to approach you. It's really about communication, you know, making them feel that you're there to support them. Because sometimes there are things we can implement, but we can't

just impose it on them. We can't force them. So what we do is we mediate, we mediate with them on how we can answer their questions, especially about their funds. We try to capacitate them, to give them exposure). (Participant 3)

(As a DRRM community, the first priority is the safety of your constituents in your residence. When it comes to long-term goals for your community, it's important that our barangays and communities, both at the local and community level, remain consistent. They must not fail when it comes to early warning systems and the flow of communication. If there is communication, it should reach their level. For example, if we receive a message from the national level going to Region 6, and it reaches the LGU, how do we ensure that this communication reaches the community? Every community must have a communication system in place to ensure that disaster preparedness is truly achieved. For the long-term goals, in every community or every household, there should be a trained emergency responder. Personally, in my vision, I want to have a database for every household. I've always dreamed of that, but it is a vision that is hard to accomplish. For example, for Family Number One in Barangay Dasal, you can locate their household on Google Maps. Through this, you could conduct an inventory and determine how many vulnerable people are in that house. So in case they need rescue within that area, we already have the data on them. That's the future I want to see, where our database system is reliable enough that, by looking at a house, we can identify the vulnerable people inside. It would be like a segregated database system. Hopefully, we can accomplish this, as it would be effective for disaster preparedness and risk reduction in that specific barangay area. You could also determine the hazards present by laying out and overlaying information. For example, if it's a flood-prone area, you'd know how many persons with disabilities or senior citizens are in that area). (Participant 5)

(Our DRRM team conducts programs, trainings, and seminars in every barangay. We really push for every household to have knowledge about emergency procedures, like BLS (Basic Life Support) and basic first aid. For example, if there's an accident, we teach them the first step they should take. That's one of the things we're proud of. Hopefully, next month we can continue our refresher courses in every barangay on basic life support because our goal is for every household, every family member, to know the basics of BLS. It's a big help). (Participant 8)

The emergent theme highlighted that increased community involvement in disaster-related programs significantly enhances the efficiency of disaster response. Regular training, education, and open communication channels can foster this involvement. Community-wide disaster drills offer practical knowledge and foster a sense of shared responsibility. These activities enhance community members' awareness of risks and equip them with the skills to respond promptly to emergencies. Community leaders can enhance public understanding of their role in disaster management, thereby decreasing reliance on external assistance and fostering self-sufficiency in times of crisis.

Community Resilience Theory is a pertinent framework for analyzing the significance of proactive community engagement in disaster preparedness. This theory asserts that communities are more capable of enduring and recovering from disasters when they possess robust social networks, common values, and shared resources (Norris et al., 2008). This theory posits that enhancing proactive community engagement in disaster preparedness fortifies the social structure, resulting in increased adaptive capacities during crises. Engaging the community through regular drills, educational programs, and open communication enhances residents' knowledge, connectivity, and collective capacity to manage disaster risks.

Schulte et al. (2021) emphasized that communities engaged in planning and decision-making processes exhibit enhanced preparedness and recovery capabilities in the face of disasters. This engagement fosters a culture of resilience in which all individuals contribute to the community's safety. The findings indicated that communities engaged in decision-making processes and with access to early warning systems were more effectively prepared to manage disasters**.**

5. Conclusion

This study looked at what it's like to be a disaster risk manager in Guimaras. It found two main things that make the job feel good: helping communities become stronger and feeling satisfied after a good response to a crisis. But the job also has big challenges. The two main problems are getting people to follow safety rules and not having enough resources or staff. To handle these problems, the workers have learned to work with others for resources and to keep training to improve their skills.

Looking ahead, they hope for better support from their organizations and more long-term resources. They also wish for more involvement from the community to better prepare for disasters. The study suggests that giving these workers the resources they need, and regular training will help them do their jobs better and encourage communities to be more proactive in getting ready for disasters.

Study Limitations and Future Research

The most significant limitation is the small number of participants, with only ten individuals interviewed. This small sample size means the experiences and themes discovered may not accurately represent the broader population of disaster risk management personnel. Additionally, the study's geographical scope is confined to just one province, Guimaras. This regional focus prevents the findings from being generalized to the entire country, as the challenges and successes of DRRM can differ greatly based on local resources, culture, and specific disaster risks in other areas. Therefore, while the study provides valuable insights into the experiences of these ten individuals, its conclusions should not be applied to a wider context.

Future research could expand on the qualitative findings by conducting a quantitative study to measure the prevalence of the identified themes. For example, a survey could be distributed to a larger, more diverse sample of DRRM personnel across different regions of the country to determine how widespread the challenges of Inadequate Resources and Manpower Constraints are. This would provide statistical data to support the qualitative insights and help policymakers prioritize resource allocation. Additionally, future studies could employ a longitudinal design to track the effectiveness of capacity-building programs over time, assessing whether interventions like Continuous Training and Collaborative Partnerships lead to measurable improvements in disaster preparedness and response outcomes.

Furthermore, given the study's focus on personnel experiences, future research could explore the community's perspective. For instance, a separate qualitative study could interview community members to understand their perceptions of DRRM programs and personnel, specifically focusing on how they view themes such as Empowering Community Resilience and Hurdles in Promoting Public Compliance. Comparing the perspectives of DRRM personnel and the community could reveal disconnects and provide a more holistic understanding of the challenges and opportunities in disaster risk reduction. This dual approach would offer a more comprehensive view, informing the development of more effective, community-centric DRRM strategies.

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