

Stories women tell: Exploring lived experiences with natural disasters in the coastal and upland communities of Sagñay, Camarines Sur

Hazel R. Bocacao^{1*}

¹Partido State University - Sagñay Campus
Nato, Sagñay, Camarines Sur, Philippines

*Corresponding author: bocacao.hazel@parsu.edu.ph

ARTICLE INFO

DOI:10.46223/HCMCOUJS.soci.en.13.1.2482.2023

Received: September 25th, 2022

Revised: November 09th, 2022

Accepted: November 24th, 2022

Keywords:

natural disasters;
phenomenology; Philippines;
vulnerability; women

ABSTRACT

This phenomenological inquiry explored women's lived experiences with typhoons and landslides in the coastal and upland communities of Sagñay, Camarines Sur, Philippines. Data sources were transcripts of in-depth individual interviews and focus group discussions. Findings suggest that women are vulnerable to disasters due to their socio-economic and geographic conditions, as reflected in the four emerging central themes of psychological, economic, and physical distress; women's roles in the domestic disaster phases; coping strategies, and the need for long-term and comprehensive disaster management programs. Coping strategies applied before, during, and after disasters have helped them survive disaster effects to a certain extent. However, they cannot escape the constant exposure to environmental hazards as long as there are geographic and socio-economic barriers. Hence, women's vulnerability to disasters is revealed in their shared narratives. Implications to policies in Disaster Risk Reduction and Management (DRRM) include strengthening mechanisms to increase their involvement in the DRRM stages and increasing their resilience and those of their communities through sustainable programs and activities.

1. Introduction

The Philippines is one of the world's most vulnerable to the harsh effects of natural disasters due to its geographical features (Trohanis, Svetlosakova, & Carlsson-Rex, 2012). Documented losses and negative impacts associated with disasters are massive and significant. Annual typhoon data report an average number of 20 typhoons that enter the Philippine Area of Responsibility (PAR). Of this count, eight (8) to nine (9) cross the Philippines more than anywhere else in the world (Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA, n.d.). In 2018, Tropical Depression (TD) Usman impacted the southern Philippines resulting in ₱5.41 billion (US\$103 million) in damages to agriculture and infrastructure aside from the 156 lives claimed, 105 injured, and 26 missing individuals (National Disaster Risk Reduction and Management Council, 2019). Specifically, in Sagñay, TD Usman caused intense rainfall that ravaged the mountainous part of Barangay Patitinan, the worst hit by the landslides.

Globally, studies report that while natural hazards threaten anyone, their impacts are often linked to gender (Asian Development Bank, 2014; Erman, Robbe, Thies, Kabir, & Maruo, 2021). The living conditions of households or individuals are most likely to be affected, especially if they are from developing countries. Women's vulnerability to climate change impacts increases

because of their dependence on threatened natural resources, poverty, and some social, economic, and cultural factors (Osman-Elasha, n.d.). Cultural perceptions also increase social inequalities (Mangahas, Casimiro, & Gabriel, 2018). Moreover, barriers such as sociocultural and economic factors, individual characteristics, and legal and institutional factors limit their vital participation in disaster risk governance (Hemachandrea, Amaratungaa, & Haigha, 2018).

Women experience a range of complex situations associated with disasters. The absence of established mechanisms to minimize the disaster impacts due to the natural and socio-economic conditions often results in a higher possibility of reverting to pre-disaster conditions (Reyes & Lu, 2017). Their vulnerability also increases due to lesser preparation despite higher awareness than men (Federal Emergency Management Agency, 2018). Moreover, women are more likely to feel the destructive effects during the disaster and even after (Banford & Froude, 2015). The risk of mortality and a chance of receiving less aid is also higher than for men (Bradshaw & Fordham, 2015, as cited in Drolet et al., 2015). Women in disasters are also commonly deprived of their health needs, security, likelihood to receive aid, participation in response or management activities, livelihood opportunities, legal support, and privacy (Alam & Rahman, 2014; Lebni et al., 2020). Moreover, in most phases of disaster management, women's presence and participation are commonly unfelt (Jahangiri, Izadkhah, & Sadighi, 2014). In the Philippines, lack of gender sensitivity, insufficient interventions for gendered social protection, inadequate government services, and politically-induced discrimination that tend to affect women negatively were found to describe women's vulnerability to disaster impacts (Reyes & Lu, 2017).

The legal framework that governs disaster risk reduction in the Philippines is contained in Republic Act 10121 of 2010 otherwise known as the Philippine Disaster Risk Reduction and Management Act (Republic Act No. 10121, 2010). The law includes gender-related concepts mandated to be institutionalized and implemented in all disaster management phases. Disaster reduction and management plans are cascaded from the national to the local levels to ensure efficient and effective implementation of the DRRM blueprints.

Much research has been conducted to document the impacts of disasters quantitatively, but qualitative inquiry among women from the coastal and upland communities is wanting. Informed by the gender lens, this study was designed to understand how women from the coastal and upland areas respond to the hydro-meteorological threats and crises explicitly caused by typhoons and landslides and contribute to a nuanced understanding of the local women's experiences. Specifically, this study aims to answer the following questions: 1) What are the lived experiences of women from the coastal and upland communities before, during, and after disasters? 2) What do these experiences convey for DRRM blueprints?

2. Theoretical bases

This study is anchored on the frameworks of vulnerability and disaster resilience. Vulnerability, often associated with exposure and social conditions, is the human dimension of disasters and is the result of a host of factors that are economic, social, cultural, institutional, political, and psychological in nature that influences people's lives and the environment where they live in (United Nations Office for Disaster Risk Reduction, 2017). Environmental and social conditions are seen to limit people from coping with the impacts of hazards. The poorer the country, the weaker the risk governance and the weaker the communities bounce back from the disaster impacts. Hallegatte, Vogt-Schilb, Rozenberg, Bangalore, and Beaudet (2020) state that households from low-income countries are characterized by lower "socioeconomic resilience". Thus, when disasters strike, the extent of their impacts is felt the most by poorer countries because a) most of their assets and sources of income are directly affected, b) recovery is slow due to

inadequate support and resources, c) their residential areas are mostly hazard-prone, and d) they lack or have no risk-reducing measures. Moreover, poorer countries' limited access to resources to reduce risks and cope with the impacts intensifies their inability to respond immediately and bounce back.

On the other hand, disaster resilience points to the capacity of individuals and communities to bounce back from the disaster impacts and reduce the possibility of being affected in the future (United Nations International Strategy for Disaster Reduction, 2005). This study attempts to examine the interplay of these concepts in the lived experiences of women from hazard-prone communities.

3. Methodology

3.1. Research design

This study utilized descriptive phenomenology to understand the concepts and essence of women's experiences and make meanings in their common life practices and the world as the inquiry's foci (Shosha, 2013).

3.2. Research setting

The study was conducted in the six villages or barangays of Sto. Niño, Nato, Atulayan, Bongalon, Sibaguan, and Patitinan, in the Municipality of Sagnay, Province of Camarines Sur, the Philippines. High vulnerability to the impacts of hydro-meteorological hazards such as typhoons and landslides served as the primary indicator in selecting the areas.

3.3. Research participants and sampling

Twelve Filipino women representing the six barangays qualified as participants based on the following inclusion criteria: 1) currently residing in one of the identified barangays; 2) hold a dominant role in the household, i.e., mother or the eldest female member in the household; 3) has experienced a disaster in her lifetime, e.g., typhoon or landslide; and 4) gave consent to participate in the study. Purposive and snowballing sampling techniques were used to reach the number of participants. Non-conforming women, such as single mothers, lesbians, and unmarried ones, were not included in this study. The 12 interviewees happened to be all married. Since data saturation was already achieved at the 12th interview, no additional individual interviews were conducted aside from the validation sessions conducted through focus group discussions of the same set of participants.

3.4. Data collection and ethical considerations

Data were collected mainly through in-depth individual interviews and Focus Group Discussions (FGD) that elicited significant stories. Through storytelling, the participants open up their experiences to others into meaningful episodes and therefore offer an understanding of their lifeworlds (Havanon, 2009). The researcher-made interview protocol elicited the participants' important stories of survival and coping, highlighting their personal experiences, roles played, and reflections before, during, and after disasters. Some questions were either modified or elaborated on as the need arose.

Prior to the actual conduct of the study, the gatekeepers' consent was sought from the Municipal Mayor, *barangay* captains, and the participants themselves. Building rapport and obtaining informed consent was done during the first visit, formal individual interviews during the next, focus group discussions on the third, and a validation meeting to confirm the veracity of the results on the last. Data saturation during the individual interviews was reached until the 12th interview. In this report, the participants were coded with numbers (e.g., P1 for Participant 1) to

protect their identities. The informed consent form explicitly divulged the study's purpose, nature, and expected outcomes and emphasized the safety nets to maintain data privacy.

3.5. Data analysis

Thematic analysis of the interview and FGD transcripts using Colaizzi's method (1978, as cited in Shosha, 2013) was applied to analyze the transcribed data gathered after each interview following these seven steps: 1) getting the sense of the statements, 2) pointing out significant codes, 3) formulating meanings, 4) clustering of formulated meanings, 5) organizing and integrating the obtained meanings and interpretations, 6) describing the essential structure of the phenomenon, and 7) validating the findings from the participants.

4. Results and discussion

4.1. Findings

4.1.1. Socio-economic characteristics of the participants

The study involved 12 women who are residents of Sagñay, Camarines Sur, Philippines, ages ranging from 37 to 61 years old. Nine are full-time homemakers; the rest are working as barangay officials. All of them are married. Of the 12 participants, only one is a college graduate. Most of them depend mainly on their spouse's incomes who either work as fishers, farmers, or construction workers. At the same time, a few earn additional income from fish vending, abaca weaving, soft broom making, and maintaining small *sari-sari* or micro-retail grocery stores. Four participants come from the upland areas, while the rest reside near the sea. All of the participants have experienced typhoons, including the most disastrous ones like Super Typhoon Sening (Joan) in 1970, Typhoon Reming (Durian) in 2006, and Typhoon Nina (Nock-ten) in 2016. Two of them were directly affected by the deadly landslides caused by Tropical Depression Usman in 2018. Table 1 presents the socio-economic characteristics of the participants.

Table 1

Socio-economic characteristics of the participants

Participant	Age (in years)	Civil Status	Occupation	Educational Background	Location
1	43	Married	Housewife	Elementary Graduate	Coastal
2	43	Married	Housewife	Elementary Graduate	Upland
3	50	Married	Barangay Official	Elementary Graduate	Coastal
4	39	Married	Barangay Official	High School Graduate	Upland
5	61	Married	Housewife	High School Undergraduate	Coastal
6	58	Married	Housewife	High School Undergraduate	Coastal
7	40	Married	Housewife	College Undergraduate	Coastal
8	47	Married	Housewife	Elementary Undergraduate	Coastal
9	61	Married	Housewife	High School Graduate	Upland
10	53	Married	Barangay official	College Graduate	Upland
11	40	Married	Housewife	High School Graduate	Coastal
12	37	Married	Housewife	High School Graduate	Coastal

4.1.2. Themes

The themes generated from the participants' shared experiences are psychological, economic, and physical distress; women's roles in the disaster stages; coping strategies, and the need for long-term and comprehensive disaster management programs.

Theme 1: Psychological, economic, and physical impacts

All participants attested that every disaster experience is challenging, evident with the emergence of the first theme. The participants experienced fear or trauma from the destructive typhoons. Fear stems from the possibility of coming home to a damaged or lost house, affected source of income, having witnessed personally the injury or loss of their family members, as experienced by Participant 2, who lost her three children to a massive landslide.

The landslide has caused me trauma, especially since I lost three kids. I have anxiety attacks now especially when it rains. I pray hard for the landslide not to happen again. (P2)

The sight was unbearable. There is nothing I can do but cry. I lost everything. No place to sleep at night. I remember our remaining children sleeping on the ground with four G.I. sheets on their backs. (P2)

Typhoons are getting stronger these days. I worry a lot about my family's safety. I have no peace of mind. (P8)

Moreover, a pronounced feeling of anxiety or uncertainty for the future was noted. Since most of them are financially dependent on their husbands, the participants felt uncertain about the future. The participants' husbands are generally the family providers, while the wives take the caregiving role and rarely earn more than their husbands. Anxiety is caused by the possibility that the husband may not have enough income or may experience a momentary loss of income due to bad weather or possible untoward incidents. Hence, disasters seem to heighten the possibility of a more difficult life situation for most families from the identified communities.

Their houses' location and infrastructural quality, mostly either along the coasts or near landslide-prone areas, also pose unnecessary fear, especially during an impending typhoon. Statements suggest the felt challenge or difficulty of returning to their feet again as damages to their sources of income (livelihood, crops) cause economic pressures.

The sight after a typhoon is heartbreaking. To see our house gone, that's just too much to bear. I cry. Our house is gone, nothing's left. How do we start over again? (P7)

There is so much poverty during the first few months after a strong typhoon. I don't know where to get the money to rebuild our house. It's so difficult. (P6)

Participant 2, a landslide survivor, recalls how dangerous raging boulders of rocks were. In her story, suffering from physical injury is another cause of distress that affected her working and earning capacity.

I was hit by a falling rock. I was lucky I wasn't seriously hit but I can't carry heavy things anymore like I used to. (P2)

Theme 2: Coping strategies

Findings show that untoward phenomena result in behaviors and actions before, during, and after disasters as coping strategies to protect themselves and their families from potential harm or damage. The theme recurred many times in the narratives of the participants. Theme clusters generated from the emergent theme of coping strategies are as follows: pre-disaster coping strategies, during-disaster coping strategies, and post-disaster recovery strategies.

1. *Pre-disaster coping strategies*

a. *Preparation*

The theme cluster of *preparation* generated five formulated meanings out of the essential statements, and phrases identified, namely: a) keeping valuables in a safe place; b) preparing necessities such as food, water, and clothing; c) preparing extra cash; d) evacuating to safer places, and e) monitoring news and updates regarding the coming typhoon. Once bulletins from the weather state bureau PAG-ASA are released, the women ensure that their family is ready for evacuation. When the family head, commonly the father, is present, he secures their house with the help of the other family members or neighbors. Ensuring enough cash before a typhoon is another important action to take. However, due to their lack of savings, borrowing money and essential goods like food and other non-food product from relatives or neighbors is a common strategy for most of them. Experience also taught a participant how to train her children to prepare their ‘emergency bags’ before typhoons. The idea that being prepared is better than being sorry prevails among most of the participants based on the following essential statements:

I taught my kids to have their emergency bags ready at all times, filled with clothes, water, food, and other stuff in case we evacuated. (P4)

Whenever I hear of an approaching typhoon, I see to it that I keep all our valuables in a safer place. If there is a need to evacuate, I bring them with me. I prepare our food, water, medicines, clothing, and important documents. (P5)

I make sure that I have cash on hand, especially before a typhoon. Sometimes, I borrow money from other people. (P5)

Commonly, depending on the intensity of an approaching typhoon and the local government unit’s decision of forced evacuation, most of the participants evacuate to places like schools, government offices, churches, and concrete houses of neighbors in the locality to ensure their safety. There is, however, this constant fear of safety due to infrastructural limitations.

We evacuate to the Centro, usually in the sports complex, although I don’t feel safe there. But at least it’s far from the sea. (P7)

Expectedly, the women, due to their constant exposure to typhoons, have developed a system to prepare their families for the imminent threats and effects. Since it takes time before a typhoon hits a place, the participants shared that they have enough time to prepare for it. However, in the case of Participant 2, who lost her three children during a massive landslide, she said she never expected the landslide to happen because it was only a tropical depression that the weather state bureau PAG-ASA declared at that time.

b. *Acceptance and optimism*

Most of the participants cling to the idea of optimism by accepting things as they are. Acceptance emerged as another coping mechanism, especially during impending typhoons. After ensuring enough preparation, they accept that there is nothing they can do about disasters since the locality where they live is typhoon-prone. The participants claimed that spiritual beliefs strengthen them to leave the situation up to God and hope for safety, as reflected in these statements:

I tell my children to pray. We pray hard. (P2)

Typhoons just pass. We will survive it. (P3)

2. *During-disaster coping strategies*

a. *Looking after the family*

While experiencing fear and discomfort during typhoons, most women are actively involved in monitoring the family's safety. In the case of Participant 8 and Participant 3, they recalled that:

During Typhoon Nina, we were in Ilawod. The waves from the sea and the river met, and it was terrifying. We ran as fast as we could, going to Centro to save ourselves from the waters, only to discover that I had lost one of my children along the way. I went back to look for her. The water was raging. It was perilous. I thank God I found her. (P8)

During Typhoon Reming, my children were still very young then. We were soaking wet inside the house as rainwater seeped through our roof. I told them to stand on a table because the seawater was already knee-high. (P3)

b. *Faith in God*

Aside from their tenacious outlook in life is their faith in God as the last source of protection. At the height of the battery of strong winds and rain, women said that they prayed and left the situation up to God's mercy and hoped that the next hours or days would be better for their families and community as reflected in this statement:

There is nothing else that we can do but trust God. We pray. (P5)

3. *Post-disaster coping strategies*

a. *Community support*

Community support in times of crisis in the coastal and upland areas comes naturally, as evidenced by their neighbors' kind and caring attitudes. Although not enough and sustained, aid came from public and private entities and even foreign countries.

We help each other. Whoever has finished repairing/rebuilding the house helps those who need assistance. I have kind neighbors. (P5)

We received relief goods, but they were not enough. (P4)

Everybody helped in looking for the victims of the landslide. Felt consolation because there was care and support from everyone in the community, but very sad because so many victims died from the landslide. (P2)

b. *Resourcefulness*

Rebuilding or repairing damaged houses calls for resourcefulness. Participants shared how inadequate funds and resources allowed them to improvise by looking for scraps or borrowing money to buy construction materials. Participants 12 and 4 shared:

The first thing I do is look for damage in the house. Then, look around for scrap wood and G.I. sheets that may be used to repair our house. It's tiring to do that every after a typhoon, but we have no choice. We need to have a roof over our heads. (P12)

Since we do not have savings, we borrow money to buy construction materials. Lucky if somebody gives us scraps of plywood or G.I. sheets. (P4)

c. Faith in God

Amid crises, most participants express acceptance of the constant reality of disasters in their locality. What the future holds for them is left to God's care and providence, a seeming consolation and hope to build life back after disasters.

God will provide. Life must go on. There will always be typhoons. (P8)

Theme 3: Woman's roles in the domestic disaster phases

The presence of women in the family sphere during the disaster phases is noted in the two theme clusters, namely: the woman as a caregiver and the woman as a teacher.

a. The woman as a caregiver

Most of the women interviewed shared that it is their primary role and obligation to take care of their children at all times, especially in disaster events. From preparing the food and other evacuation needs to ensuring their safety, women assume caregiving roles and provide comfort and strength as reflected in these statements:

During Typhoon Reming, my kids were still very young. Even inside the house, we were soaking wet, rainwater seeped through our roof. I let them stand on a table because the seawater was knee-high. I did not show any fear to my kids. I stood strong for them. However, they did not know how scared I was during that time. I will never forget that typhoon. (P3)

I asked them to pray to God. Pray. That's what we can do. (P3)

I tell my children to pray. We pray hard. (P2)

b. The woman as a teacher

The nurturing woman also teaches awareness of disaster preparedness at the household level. This practice is essential in raising environmentally-concerned and socially-informed citizens, as reflected in this statement:

I taught my kids to have their emergency bags ready at all times, filled with clothes, water, food, and, other stuff in case we evacuate. (P4)

Theme 4: The need for a long-term and comprehensive disaster program

This theme encapsulates the perceived negative experiences of the participants. The need for a long-term and comprehensive disaster program emerged from their reflections on the pressures that disasters cause on their lives, specifically from the desire for relocation to safer places far from the threats of the waves, strong winds, floods, and landslides. Participant 2 stated,

I really want to live in a safer place. That's what we are asking for. (P2)

The second is support for their livelihood, so they recover from financial losses brought by the detrimental effects of disasters on their properties and sources of income.

When our livelihood is damaged, our lives are affected. Getting back to our feet is full of difficulties. (P12)

As most women related, food insecurity increases, and getting by, especially after a typhoon, is a big challenge as hunger is common among their households.

Starting over again is hard. Our source of income is affected. Relief goods are just temporary. (P11)

It takes several days after a typhoon before my husband can go back to fishing. (P12)

Most participants also expressed their willingness to learn more about disaster risk reduction and management, recognizing the fact that they can also help in life-saving and not always be considered helpless victims. It was evident in the women's statements that they need more knowledge and skills to prepare and protect their families from the impacts of disasters. Recognizing their important role in the family, they consider themselves as essential agents who assume most of the responsibilities left to them by their husbands, who are frequently away from home due to the nature of their occupation.

I wish more women are trained in DRR so that we know what to do during disasters. (P9)

They also expressed their desire for safe evacuation centers to reduce their exposure to natural hazards.

The windows and door were blown by the strong winds when we were in Central. We were lucky because nobody got hurt, but we were so scared and wet. (P8)

In situations that men can no longer control, most women claim that faith helps them sustain their strength in fighting the fear and distress of disasters. They claimed that holding on to their faith and treating God as their ultimate hope and savior gives them courage and comfort.

I asked them to pray to God. Pray. That's what we can do. (P3)

4.2. Discussion

Natural disasters like typhoons and landslides expose and heighten the women's vulnerability caused by their socio-economic and geographic conditions as reflected in the four emerging central themes of psychological, economic, and physical distress; women's roles in the domestic disaster cycle; coping strategies, and the need for long-term and comprehensive disaster management programs.

The adverse effects of disasters, such as psychological, economic, and physical distress on the well-being of women are also emphasized in other studies (Jahangiri et al., 2014; Shooshtari, Abedi, Bahrami, & Samouei, 2018; Tuason, Güss, & Carroll, 2012). Although the dimensions related to women's mental health are multifactorial, responding to what triggers the mental health concerns, such as anxiety and trauma, can be traced back to the root cause of the problem, i.e., unsafe locations and unstable sources of income. Older Filipino adults, both men and women, associated disasters with fear, physical burden, and helplessness similar to the findings of Garcia, Lapa, and Palompon (2016). Moreover, people who experience painful psychological distress, unfortunately, extend the stress to their family members (Tan, Jardeleza, Sta. Maria, & Teng-Calleja, 2015). Mental health needs can be improved through aggregated or comprehensive and collaborative actions within the community (Shooshtari et al., 2018). Economic disaster impacts include financial hardship contributing to more vulnerability (Tuason et al., 2012). Similar to the study of Garcia et al. (2016), this study posits that social connections through community support and the resolve to rebuild their lives no matter what sustain the women's coping mechanisms to disasters.

Their need for aid confirms, to a certain extent, their high vulnerability to disaster impacts. Notably, the recurring cluster theme of *faith* during the different phases of the disaster is evident among the women. These results confirm the previous findings on traditional coping strategies for disasters (Fletcher et al., 2013), including the role of faith and religious beliefs (Holmgaard, 2018; Shooshtari et al., 2018). Religious understanding of a disaster contributes to post-disaster processes (Holmgaard, 2018).

Women also play a significant role in disaster response and recovery stages at the household level (Hemachandrea et al., 2018). The presence of women in disaster situations implies their contribution to safeguarding the welfare of their families and educating their children to become well-informed and concerned about the environment. Implications include strengthening their capacity to teach their children about disaster and climate change awareness. However, the absence of mechanisms to prevent disasters only leads to recurring pre-disaster conditions (Reyes & Lu, 2017). Unsustained, short-term, and irrelevant projects often lead to failure; thus, the possibility of experiencing the same predicament continues.

5. Conclusions & recommendations

The study's findings suggest that women from the coastal and upland communities experience unnecessary distress from typhoons and landslides. Their socio-economic and geographic characteristics reinforce inadequate capacities to bounce back from the impacts. Inadequacies such as hazard-prone habitation and lack of capacity to relocate on their own and establish sustainable livelihoods contribute to their exposure to the hazards contributing to their anxiety about the future. Thus, there is a need for resilience-focused interventions through sustainable livelihood and relocation programs.

With these conclusions, the following are suggested: a) Increase the women population's participation in the DRRM cycle such as prevention, mitigation, preparedness, response, and recovery; b) Intensify training with a preventive approach at the local level in recognition of the critical roles that women play in their homes and communities before, during and after disasters; and c) Increase their resilience and those of their communities through meaningful, sustainable, targeted programs, activities, and projects on livelihoods, health, and education, among others. Specifically, safe relocation sites and evacuation facilities should be prioritized to ensure safety. The availability of psychosocial services and basic life support/first aid training may also be made regular and accessible for the women and the rest of the community members.

Future research may look at how the other vulnerable group members - persons with disability, children, and the elderly from the coastal and upland communities - cope with disasters.

ACKNOWLEDGEMENTS

My sincere gratitude to all participants whose narratives helped me reach the goal of this study; to Partido State University, Camarines Sur, Philippines, for the research fund; and to the reviewers who provided comments and recommendations to improve the earlier version of this manuscript.

There is no conflict of interest.

References

- Alam, K., & Rahman, M. H. (2014). Women in natural disasters: A case study from Southern Coastal Region of Bangladesh. *International Journal of Disaster Risk Reduction*, 8, 68-82. doi:10.1016/j.ijdr.2014.01.003
- Asian Development Bank. (2014). *Gender-inclusive disaster risk management (tip sheet)*. Retrieved May 10, 2022, from <https://www.adb.org/sites/default/files/institutional-document/766921/tip-sheet-gender-inclusive-disaster-risk-management.pdf>
- Banford, A., & Froude, C. K. (2015). Ecofeminism and natural disasters: Sri Lankan women post-tsunami. *Journal of International Women's Studies*, 16(2), 170-187.

- Bradshaw, S., & Fordham, M. (2015). Double disaster: Disaster through a gender lens. In *Hazards, risks and disasters in society* (pp. 233-251). Cambridge, MA: Academic Press.
- Drolet, J., Dominelli, L., Alston, M., Ersing, R., Mathbor, G., & Wu, H. (2015). Women rebuilding lives post-disaster: Innovative community practices for building resilience and promoting sustainable development. *Gender & Development*, 23(3), 433-448, doi:10.1080/13552074.2015.1096040
- Erman, A., Robbe, S. A., Thies, S. F., Kabir, K., & Maruo, M. (2021). *Gender dimensions of disaster risk and resilience: Existing evidence*. Washington, D.C.: World Bank.
- Federal Emergency Management Agency. (2018). *2017 National household survey results: Preparedness in America*. Retrieved May 10, 2022, from https://community.fema.gov/story/fema-releases-2017-nationalhousehold-survey-findings-on-individual-and-community-preparedness?lang=en_US
- Fletcher, S. M., Thiessen, J., Gero, A., Rumsey, M., Kuruppu, N., & Willetts, J. (2013). Traditional coping strategies and disaster response: Examples from the South Pacific Region. *Journal of Environmental and Public Health*, (1), 1-9. doi:10.1155/2013/264503
- Garcia, L., Lapa, M. M. I., & Palompon, D. (2016). Surviving Typhoon Yolanda (Haiyan): Experiences of older adults in a rural area in the Philippines. *International Journal of Sciences*, 5(11), 1-6. doi:10.18483/ijSci.104
- Hallegatte, S., Vogt-Schilb, A., Rozenberg, J., Bangalore, M., & Beaudet, C. (2020). From poverty to disaster and back: A review of the literature. *EconDisCliCha*, 4, 223-247. doi:10.1007/s41885-020-00060-5
- Hamidzada, M., & Cruz, A. M. (2017). Understanding women's vulnerability factors to natural hazards in Afghanistan. *DPRI Annuals*, 60(29), 343-349.
- Havanon, N. (2009). Narrative approach: The turning point of social science research. *Journal of Mekong Societies*, 5(2), 1-22.
- Hemachandraa, K., Amaratungaa, D., & Haigha, R. (2018). Role of women in disaster governance. *Procedia Engineering*, 212, 1187-1194.
- Holmgaard, S. B. (2018) The role of religion in local perceptions of disasters: The case of post-tsunami religious and social change in Samoa. *Environmental Hazards*, 18(4), 311-325. doi:10.1080/17477891.2018.1546664
- Jahangiri, K., Izadkhah, Y. O., & Sadighi, J. (2014). Women's health in natural disasters: A vulnerability analysis. *Global Risk Forum in Planet@Risk*, 2(2), 98-100.
- Lebni, J. Y., Khorami, F., Azar, F. E., Khosravi, B., Safarim, H., & Ziapour, A. (2020). Experiences of rural women with damages resulting from an earthquake in Iran: A qualitative study. *BMC Public Health*, 20, Article 625. doi:10.1186/s12889-020-08752-z
- Mangahas, T. L. S., Casimiro, R. R., & Gabriel, A. G. (2018). Economically challenged women in disaster risk management: Toward a resilient Filipino community. *Open Journal of Ecology*, 8(1), 42-56. doi:10.4236/oje.2018.81004
- Moreno, J., & Shaw, D. (2018). Women's empowerment following disaster: A longitudinal study of social change. *Nat Hazards*, 92, 205-224. doi:10.1007/s11069-018-3204-4
- National Disaster Risk Reduction and Management Council (NDRRMC). (2019). *Sitrep No.26 re preparedness measures and effects of TD USMAN*. Retrieved May 10, 2022, from

<https://ndrrmc.gov.ph/2014-09-05-05-49-57/9-ndrrmc-advisory/3540-preparedness-measures-and-effects-of-td-usman>

- Osman-Elasha, B. (n.d). *Women ... In the shadow of climate change*. Retrieved May 10, 2022, from <https://www.un.org/en/chronicle/article/women-in-shadow-climate-change#:~:text=Women%20are%20increasingly%20being%20seen,dependent%20on%20threatened%20natural%20resources>
- Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA). (n.d.). *Tropical cyclone information*. Retrieved May 10, 2022, from <http://bagong.pagasa.dost.gov.ph/climate/tropical-cyclone-information>
- Republic Act No. 10121. (2010). *Philippine disaster risk reduction and management plan of 2010*. Retrieved May 10, 2022, from <https://www.officialgazette.gov.ph/2010/05/27/republic-act-no-10121/>
- Reyes, D. D., & Lu, J. L. (2017). Gender dimensions and women's vulnerability in disaster situations: A case study of flood-prone areas impacting women in Malabon City, Metro Manila. *Journal of International Women's Studies*, 18(4), 69-88.
- Shoostari, S., Abedi, M. R., Bahrami, M., & Samouei, R. (2018). The mental health needs of women in natural disasters: A qualitative study with a preventive approach. *Journal Family Prim Care*, 7, 678-683.
- Shosha, G. A. (2013). Employment of Colaizzi's strategy in descriptive phenomenology: A reflection of a researcher. *European Scientific Journal*, 8(27), 31-43.
- Tan, A. J. N., Jardeleza, A. O., Sta Maria, F. A. P., & Teng-Calleja, M. (2015). Vicarious trauma and natural disasters: A transcendental phenomenological analysis of the experiences of families of Typhoon Haiyan survivors. *Philippine Journal of Psychology*, 48(2), 51-80.
- Trohanis, Z. E., Svetlosakova, Z., & Carlsson-Rex, H. (2012). *Making women's voices count in natural disaster programs in East Asia and the Pacific (English)*. Retrieved May 10, 2022, from <https://openknowledge.worldbank.org/handle/10986/10091>
- Tuason, M. T. G., Güss, C. D., & Carroll, L. (2012). The disaster continues: A qualitative study on the experiences of displaced Hurricane Katrina survivors. *Professional Psychology: Research and Practice*, 43(4), 288-297. doi:10.1037/a0028054
- United Nations International Strategy for Disaster Reduction (UNISDR). (2015). *Hyogo framework for action 2005-2015*. Retrieved May 10, 2022, from https://www.unisdr.org/files/1037_hyogoframeworkforactionenglish.pdf
- United Nations Office for Disaster Risk Reduction (UNDRR). (2017). *Understanding disaster risk*. Retrieved May 10, 2022, from <https://www.preventionweb.net/understanding-disaster-risk/component-risk/vulnerability>
- van Kessel, G., Gibbs, L., & MacDougall, C. (2014). Strategies to enhance resilience post-natural disaster: A qualitative study of experiences with Australian floods and fires. *Journal of Public Health*, 37(2), 328-336. doi:10.1093/pubmed/fdu051

