

Research Article

THE FAMILY MEMBERS' PERSONAL VULNERABILITIES TO NATURAL CALAMITIES IN PASACAO, CAMARINES SUR, PHILIPPINES

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ABSTRACT

The marginalized farmers and fisher folks who lived under the constant threats of natural calamities are vulnerable in various ways. However, the least significant concern but valuable to the community is the well-being of individuals. As family members displayed various responses to natural calamities, essential in understanding the full recoveries of families, the present study focused on the personal vulnerabilities felt by men, women, and children in the pre-, during, and post-disaster phases. This inquiry employed the descriptive-evaluative design, including 375 respondents using the Krejcie and Morgan (1970) sampling technique. The research locale included five barangays in the Municipality of Pasacao. These places are known as business centers where most farming and fishing families reside. The researcher devised a survey questionnaire and guided questions before its distribution. The researcher analyzed the data through frequency counting and percentage. The FGDs and interviews among men and women were given consent letters to adhere to the ethical principle. Children also had approved permission from their parents before their inclusion. The result revealed that the dynamic exposure to natural calamities and disasters of men, women, and children leads them to become familiar with their personal feelings. This paper highlights the marginalized families' inner thoughts describing their physiological, physical, emotional, and psychological responses to the natural calamities encountered and how their mental health affects them.

Keywords: DRRM, natural calamities, personal vulnerabilities, role definition, family.

INTRODUCTION

As climate change is taking its toll worldwide, Southeast Asian countries are becoming vulnerable to the devastating effect of natural calamities (Kompas *et al.*, 2018). The top 10 most at-risk 'include Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam' (Beirne *et al.*, 2021). These countries suffered significantly, particularly in the economic losses and casualties. Ranking third in the World Risk Report 2018 (Reliefweb, 2018), the Philippines' vulnerable condition challenges its internal efforts on mitigation. The Philippines' most common destructive natural calamity is the constant visit of strong typhoons and storm surges in the coastal areas (Healey *et al.*, 2023). Its aftermath is observed with intensive flooding and landslide occurrences in rural communities, leaving impoverished communities even poorer. Hence, the difficulty lies in the country's poor performance in disaster management and implementation (Commission on Audit, 2014), leading to challenges in the Barangay levels catching up on DRRM activities. The gaps and insufficiencies lead to the slowest action in the reestablishment, recovery, and improvement (PTV News, 2020).

The most affected by typhoons in the five barangays within the Municipality of Pasacao are those from farming and fishing families (Acosta *et al.*, 2016) whose livelihood depends on the rice fields and the seas for a living. These areas are the most hit and likewise recovered slowly. As most Filipino households are prone to disasters, it was revealed that families are unprepared due to funds deficiency, according to a Harvard study (Enano, 2019), and low-income families live in areas unsafe for housing (Morin *et al.*, 2016). The children, though, are affected in terms of their schooling and the ability to learn

due to the disruption of classes (Hoffman, 2017). However, ingenuities play a big part in every family's silent battles against natural calamities. For years previous studies showed that aside from the hazards encountered, the communities are vulnerable to socioeconomic status, residential compositions, and family units (Mavhura *et al.*, 2017; Chen *et al.*, 2021), including the challenge of their personal vulnerabilities. According to WHO (2022), most individuals that are exposed previously to emergencies usually feel anxious, hopeless, sleepless, in pain, and angry. Hence, this natural occurrence may improve or worsen over time. The end result to the mental health if not recovered is the prevalence of the Post Traumatic Stress Disorder (PTSD) depression and anxiety which could cause damage to the full functions of individuals (Hackbarth, 2012).

One of the minimally discussed topics in the Municipality of Pasacao about DRRM is the personal vulnerabilities of the men, women, and children who faced the aftermath of the disaster. Though families could have been experiencing post-traumatic stress disorder (Maeda and Oe, 2017), it was never monitored nor addressed in the municipality; due to the lack of inadequate mental health facilities in the country (Lally *et al.*, 2019). Since personal vulnerabilities could become a mental health issue, the present study considered taking a closer look at the personal difficulties of men, women, and children to understand how the marginalized population in the municipality takes the impact of natural calamities overtly and covertly. Thus the objective is to assess the personal vulnerabilities of the family members.

METHODS

The present study used the descriptive survey design in which the study intends to describe the group of individuals' "characteristics, opinions and attitudes" (Creswell, 2012). It is a flexible design to improve the presentation of quantitative and qualitative data to produce the necessary facts and details of the subject matter

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(Doyle *et al.*, 2020). The Research locale identified is the five barangays in the Municipality of Pasacao, such as Barangays Balogo, San Cirilo, Sta Rosa del Norte, Sta Rose del Sur, and Caranan. Such places are located where the researcher can find the situation strategically valuable for the study. It contained ports, government schools and offices, beaches, and business establishments, which drew settlers into the area's crowded places. Further, the site housed families with marginal living conditions in the upland, lowland, and coastal regions where they are somewhat vulnerable. Hence, the five barangays still need a concrete plan for DRRM activities besides the residents' evacuation during the onset of natural calamities. The targeted population in this study are the men, women, and children within the five barangays belonging to families with meager incomes. The entire population within the five barangays was 19,684, according to the BHW Survey of 2015. The 375 respondents included in the study were, through the use of Krejcie and Morgan's (1970) table employing stratified sampling, distributing the numbers equally among men, women, and children.

The local government unit (LGU) officials and the Barangay Health Workers (BHW) assisted in the data collection procedure. The researcher used self-constructed survey questionnaires that are referred and grounded to the related literature and evaluated by an interrater. Similarly, guide questions for the FGDs and key informant interviews underwent the same procedure. The data gathering lasted for about three months. Once the needed data were completed, the Data analysis procedure was employed. The researcher used Microsoft Excel to compute the frequency counting, and percentage to identify the various vulnerabilities of family members encountered pre, during, and post-disaster. At the same time, content analysis was employed from the interviews conducted.

RESULTS AND DISCUSSION

Assessing the personal vulnerabilities of men, women and children

A. Physiological Vulnerabilities

Based on the data analyzed from the surveys and FGDs, physiological vulnerabilities are highly experienced during the onset of a strong typhoon which is commonly happening in the municipality.

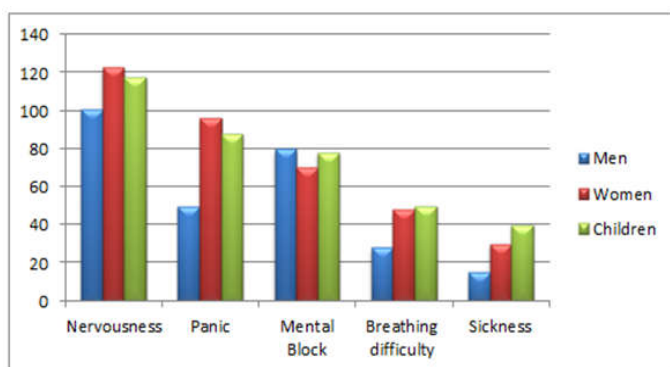


Fig. 1 Physiological vulnerabilities experienced by men, women and children

Results showed that *nervousness* is on top of the choices where men (n=101), women (n=123), and children (n=118) seemed to experience a high rate during an encountered natural calamities. The nervousness brought the feeling of uncertainty in a situation. While *panic* is crucial to women (n=96) and children (n=88), it is less of a challenge among men (n=50) as they said they need to keep themselves calm for their families. A mental block is an experience of being shocked by a specific situation. Though observably, the mental block is slightly higher in men (n=81) followed by children (n=78) and

women (n=69), men and women inferred that they only experienced it for a minute while it is prolonged among children. The men and women are considering the safety of their families and children, so they need to be alert. *Breathing difficulty* happened at the time when they felt they were too overwhelmed by the situation; this was highly experienced by women (n=48) and children (n=50) than men (n=28). *Sickness* is also an experienced common to women (n=30) and children (n=40) as they said they feel they are about to throw up, have headaches, and have dizziness while experiencing the howling winds and the collapsing structures. Though less in men (n=15), older respondents shared the same experience. Hence, they are distressed by their immobility.

B. Physical Vulnerabilities

Results revealed that the physical vulnerabilities are experienced by the respondents when there is an upcoming and during the onslaught of natural calamities. They are commonly affected by the previous stories on social media, and they would have an unpleasant feeling that something terrible will happen to them.

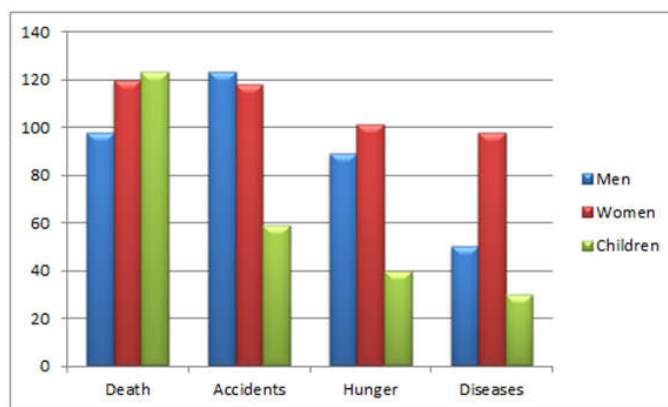


Fig. 2 Physical vulnerabilities experienced by men, women and children

Death is the top choice for the physical vulnerabilities viewed by women (n=120) and children (n=123) than men (n=98) when there are calamities. Women are terrified for the lives of their husbands, who tend to face dangerous situations, and their children, who are not yet fully capable of saving themselves. However, men (n=123) are inclined to view *accidents* as their top physical vulnerability than death, while it is the second concern of women (n=118). During the interview, men revealed that accident is more likely to occur than death due to unwise decisions. Moreover, they are afraid that their wrong decisions may compromise the lives of their families. Though children (n=59) viewed accidents as a problem, the result showed that they were not as affected as the adult respondents; this could be because they are safe to be with their families. *Hunger* is previewed by women (n=101) and men (n=80) as physical vulnerability since natural calamities may cause a series of damages to livelihood and property, leading to food shortages and price hikes for essential commodities. The *diseases* are also the physical vulnerabilities that concern women when there is a coming typhoon. During its violent attack, for them, it equates to infectious diseases born out of various contaminants. It is highly viewed by women (n=98) and men (n=50) as a concern, while less among the children (n=29). Hence, women responded that in as much as they wanted to fully help the family they admitted to their limitations (1) inability to match the strength of men in terms of responding to emergencies and carrying heavier objects, and (2) inability to fight an aggressor if they do not have men at home. The older adults and physically disabled individual's concern are their immobility. Children likewise answered that they are afraid of drowning since some do not have swimming skills.

C. Emotional Vulnerabilities

The respondents' pinpointed that emotional vulnerabilities usually happened before and during the impact of natural calamities. They notably identified fear as the primary emotion encountered.

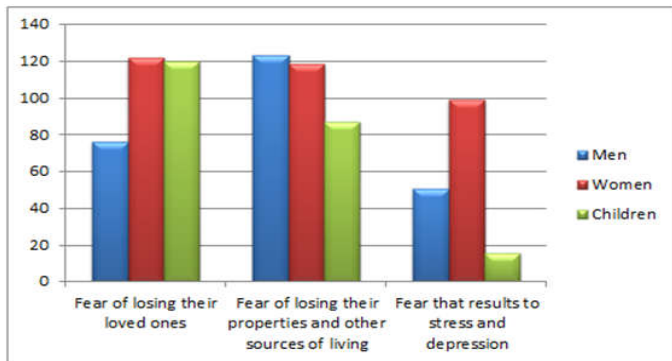


Fig. 3 Emotional vulnerabilities experienced by men, women and children

The top result of fear among the participants is the *fear of losing their loved ones*, which is rated high by women (n=122) and children (n=120), with men (n=76) considering the average. The unwanted thoughts were triggered by what happened in Typhoon Ondoy (Ketsana) in 2009 and Typhoon Yolanda (Haiyan) in 2013, where many deaths were reported. The *fear of losing their properties and living sources* is the top problem considered primarily by men (n=123) and women (n=118). They knew the after-effect of a natural calamity's visit would highly impact their living conditions, particularly marginalized families. Older children (n=87) are already aware of the blow but cannot do anything; instead help their parents prepare and pray. Another fear identified by the respondents is the one that leads to *stress and depression*. Women (n=99) admitted they are vulnerable to stress and do not know if it would lead to depression. They revealed that thinking of the property losses, just like what they experienced before when a natural calamity badly hit their place, makes them anxious as it is difficult to start again. Although men (n=50) rated this as their third emotional vulnerability, they also divulged that they also felt anxious, encountering the damages of the previous typhoons. Their emotional catharsis is to drink a lot to forget their problems temporarily. Further, the children (n=15) were not bothered by it, though they admitted they felt unfortunate as there was damage to their needed school materials, devastated houses, and broken toys. They said they temporarily forgot their worries when the younger children played, and the older children chatted with their friends.

D. Psychological Vulnerabilities

The respondents disclosed that the psychological vulnerabilities happened after the onslaught of a natural calamity as they admitted to having intrusive thoughts that often lead them to a feeling of self-pity.

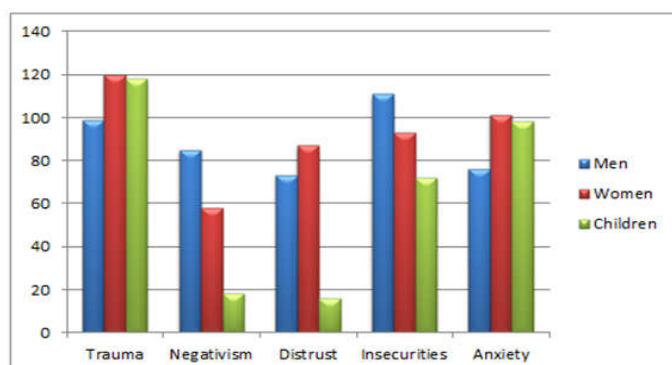


Fig. 4 Psychological vulnerabilities experienced by men, women and children

The result assessed that in the psychological vulnerabilities, *trauma* is the top concern of women (n=120) and children (n=118), while this is second to the concern of men (n=99). The traumatic experience, according to the adult participants, happened at the time when they realized they had nothing to start. The extent of the devastation is just too much to bear. Children also revealed that they even dream repeatedly of the destructive rain, winds, and flooding. *Negativism* is high among men (n=85), followed by women (n=58) and children (n=18). Admittedly men stated that they became negative in life but tended not to show it, while women stated that they also felt negativity. However, they must be strong to continue fighting for their children's sake. Children's negativity runs along with their worry that they may stop schooling because their parents may no longer be capable of sending them to school. *Distrust* is also an issue found by women (n=87) and men (n=73) that their local government unit will not help them in their predicament, only those close to the local leaders will be given assistance, and they see it as a problem. Children (n=16) chose distrust as the lowest of their options. Hence, men (n=111) highly express insecurities after a natural disaster. They feel useless as the head of the family when they cannot bring food to the table. Women (n=93) felt the same as they, too, are conscious of almost starting over, but they repeatedly mentioned the need to survive for the sake of their children. They admitted that supporting their husbands during this stressful time is their duty. Children (n=72) also feel insecure about their insufficient basic needs. Moreover, *anxiety* is high among women (n=101) and children (n=98), admitting that life is getting more difficult in the first few weeks of adjustment to the new life after the destruction. Men (n=76) revealed that their anxiety makes them careless and irritable, a problem women also experienced. Though everyone is already acquainted with the personal vulnerabilities during the outbreak of a violent typhoon, these are still worrisome to many respondents. The higher impact is mostly among children, who cannot fully understand the situation and how they would respond. While men and women tend to hold it together, appearing strong as they think of their dependents. Nevertheless, typhoons' force and destructions vary, and the marginalized family's vulnerabilities are constantly unchanging. The experience of the same feelings and responses in the same living condition becomes a way of life they almost accept being impoverished.

The personal vulnerabilities of men, women, and children were regularly experienced in the region's pre-, during, and post-disaster phases. Families are forced to deal silently with battles about their mental health. Many appeared stressed; some were experiencing anxiety attacks, and a few had depression. Sadly, these are all left untreated as many are unaware that the behavioral changes brought about by the devastating effects of natural calamities need an intervention. Nevertheless, due to the lack of workforce and facilities to attend to their needs, the experience formed a new habit among men, women, and children. Minor incidents of marital violence, men turning into vices, hopelessness, cases of teenage pregnancies, and governmental dependence were a few observable traits associated with their untreated personal vulnerabilities.

The families' lack of mental health awareness learned to normalize the experience as if they were a part of life that they needed to encounter. However, the men, women, and children suffering from the impact of natural disasters are free to express anger and frustration through crying as they learn the value of patience, resourcefulness, and hope the hard way. Most respondents' intense religiosity and faith in God helped them cope with their difficulties through prayers as they left their worries and future to the Almighty. Hence in their personal vulnerabilities, the DRRM role definition among men, women, and children began to take shape in their exposure to natural calamities. Moreover, the strengths of one family

member support the weaknesses of the other and vice versa. Learning from their vulnerabilities and the often appearances of natural calamities created a pattern that provided families to build and reinforce a safety strategy for everyone. Their agitations pushed them to act cautiously and responsively.

CONCLUSION

When there are many studies abroad regarding the personal vulnerabilities of men, women, and children and how local officials should address the problem, this study contributed additional knowledge in the local context. The presentation of the family's vulnerabilities and how they cope with their predicaments is vital in the local context. The study reflects a rich learning indication by understanding men, women, and children's vulnerabilities. These can be used to support and design needed DRRM training for the added safety of the families. Hence, the study is limited to the people's experience in the five barangays of the Municipality, highlighting the marginalized individual's exposure to natural calamities, particularly the farming and fishing families whose experience differs from the urban population and those with high income.

Recommendation

As men, women, and children entered a phase of achieved cooperation on pre-, during, and post-disasters within the family, the LGU officials should still consider providing their constituents a concrete DRRM mechanism to add to each family's survival skills. It is not enough that the families are independent; the role of LGU officials should be more inclusive and strengthening not just because they need it but because it is their obligation as public officials.

Ethical Consideration

The study ensured that every significant office was properly coordinated. Upon the approval of the study from the Research Division, the researcher appeared to the Municipal Mayor to seek approval to conduct the study within the Municipality and closely work with the Municipal DRRM Personnel, Punong Barangays, and the Barangay Health Workers (BHW). The identified men, women, and children included in the study were given informed consent stating they could participate without pressure. The personal and sensitive information was guaranteed confidentiality, which they all affirmed. The researcher also secured permission from the parents that their children would participate in the study. She also conducted individual letters emphasizing the importance of completing the inquiry with honesty and sincerity.

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