

# Adversities, Agony, Pain, and Survival: An in-depth Analysis of Deluge Victims

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## ABSTRACT

This study aimed to explore the experiences of deluge victims in Iligan city following typhoon sendong using Interpretative Phenomenological Analysis (IPA). Semi-structured interviews were conducted with 10 participants, and the data were analyzed using IPA. The study found that the flood had a significant psychological and emotional impact on the participants, with several key themes and patterns emerging from the IPA analysis. These included the impact on emotional well-being, coping strategies, and patterns of adaptation and adjustment among Iligan city's sendong survivors. The coping strategies employed by the participants highlighted the importance of social support and community engagement in disaster recovery. The patterns of adaptation and adjustment observed among the participants suggest the potential for personal growth and development following a traumatic event. The study has implications for practitioners and policymakers involved in disaster response and recovery, and highlights the need for continued research and support for individuals and communities affected by natural disasters.

Keywords: Deluge victims; Interpretative phenomenological analysis; Making sense of the flood; Typhoon sendong

# INTRODUCTION

In December 17, 2011, typhoon sendong caused widespread flooding and landslides in the Southern Philippines, resulting in over 1,200 deaths and affecting over 2 million people (national disaster risk reduction and management council, 2012) [1]. Iligan city, located in the province of Lanao del Norte, was one of the areas hardest hit by the disaster. The flooding caused by typhoon sendong resulted in significant damage to property, infrastructure, and livelihoods, as well as widespread psychological and emotional trauma for the individuals affected.

Many of the survivors were closely associated with the researcher, hence, igniting the sympathetic and emphatic urgency to conduct this kind of study [2]. That being said, the purpose of this study is to explore the subjective experiences of deluge victims in Iligan city following typhoon sendong [3-9]. Using the Interpretative Phenomenological Analysis (IPA) approach, the study seeks to gain a deeper understanding of the psychological and emotional impact of the flood, the coping strategies employed by individuals, and the ways in which they have adapted to their changed circumstances. The research questions guiding this study include:

- What are the subjective experiences of deluge victims in Iligan city following typhoon sendong?
- How do deluge victims make sense of their experiences of the flood?
- What coping strategies have deluge victims employed in response to the flood?
- How have deluge victims adapted and adjusted to their changed circumstances following the flood?

By exploring the experiences of deluge victims in Iligan city, this study aims to contribute to a deeper understanding of the impact of natural disasters on individuals and the ways in which they cope and recover from such events. The findings of this study may also inform the development of more effective interventions and support services for deluge victims in the future [10].

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#### Theoretical framework

The study is guided by a theoretical framework that draws on the concept of Post-Traumatic Growth (PTG) as a potential outcome of natural disasters. PTG refers to the positive psychological changes that can occur in individuals following a traumatic event. PTG can result from the cognitive and emotional processing of a traumatic event, leading to personal growth and development [11]. This framework is particularly relevant for understanding the experiences of deluge victims in Iligan city following typhoon sendong, as research has shown that exposure to natural disasters can lead to both negative and positive outcomes.

Moreover, the theoretical framework draws on the concept of coping strategies and social support as important factors in disaster recovery. Coping strategies refer to the behavioral and cognitive efforts used to manage the stressors of a traumatic event. Social support, on the other hand, refers to the resources and assistance provided by others during and after a disaster. The role of coping strategies and social support in promoting PTG and recovery following a disaster is well-established [12]. Therefore, this framework provides а basis for understanding the experiences of deluge victims in Iligan city, as well as the potential for growth and recovery in the aftermath of a natural disaster.

In the context of the present study, exploring the coping strategies and social support networks of deluge victims can provide insight into the factors that facilitate PTG following a natural disaster. By identifying the specific coping strategies and sources of social support that are most beneficial in promoting PTG, the study can provide practical guidance for disaster response and recovery efforts, as well as inform the development of interventions to support the mental health and well-being of disaster affected populations.

# LITERATURE REVIEW

Natural disasters are a common occurrence around the world, with devastating consequences for individuals, communities, and entire nations. In recent years, there has been increasing interest in the subjective experiences of individuals who have been affected by natural disasters, with researchers using qualitative approaches such as Interpretative Phenomenological Analysis (IPA) to gain a deeper understanding of the psychological and emotional impact of such events [13]. IPA is particularly suited to exploring the subjective experiences of individuals and has been used extensively in research on trauma and adversity.

Floods are one of the most common natural disasters worldwide, affecting millions of people every year (World Health Organization). The impact of floods on individuals can be significant, with studies suggesting that floods can result in widespread psychological and emotional distress, as well as physical health problems [14]. The psychological impact of floods can include symptoms of depression, anxiety, Post-Traumatic Stress Disorder (PTSD), and other mental health issues.

Research on the experiences of deluge victims in the aftermath of floods has shown that individuals can experience a range of emotions, including shock, disbelief, fear, and anger. Coping strategies employed by deluge victims include seeking support from friends and family, engaging in religious or spiritual practices, and engaging in positive activities such as exercise or hobbies [15]. However, studies have also highlighted the challenges that individuals face in coping with the aftermath of floods, including financial and practical difficulties, social isolation, and ongoing psychological distress.

The Philippines is a country that is frequently hit by typhoons, leading to loss of life, property, and livelihood. One of the deadliest typhoons in the country's recent history was typhoon sendong, which hit Iligan city on December 17, 2011. The typhoon caused massive flooding that resulted in over 1,200 deaths and affected more than 700,000 individuals. In the aftermath of the disaster, many individuals were left struggling to cope with the physical, emotional, and psychological impacts of the flood. The current study aims to provide an interpretative phenomenological analysis of the experiences of deluge victims in Iligan city following typhoon sendong.

Studies have shown that natural disasters can have significant physical, emotional, and psychological impacts on individuals and communities. These impacts can include loss of life, physical injury, displacement, disruption of social networks, and psychological trauma [16]. Researchers have used various methods to investigate the experiences of disaster survivors, including quantitative surveys, qualitative interviews, and mixed methods approaches Interpretative Phenomenological Analysis (IPA).

Overall, previous research has highlighted the significant impact of natural disasters on individuals, particularly in terms of their psychological and emotional well-being. The use of qualitative approaches such as IPA can provide valuable insights into the experiences of deluge victims and the ways in which they cope and adjust to their changed circumstances.

#### Methodology

**Research design and rationale for using IPA:** This study uses an Interpretative Phenomenological Analysis (IPA) research design, which is a qualitative approach that aims to explore the subjective experiences of individuals. IPA is particularly suited to exploring the lived experiences of individuals who have been through a traumatic event, such as a natural disaster. This study aims to gain a deeper understanding of the experiences of deluge victims in Iligan city following the sendong typhoon in 2011.

Sampling procedures and participant selection: The participants for this study were selected using purposive sampling, a method of selecting participants based on specific criteria. The inclusion criteria for this study were individuals who had experienced the sendong typhoon in 2011, were living in Iligan city at the time of the disaster, and were over the age of 18. A total of 10 participants were selected for the study [17]. They used to live in Barangay Barina-ut, Iligan city and were

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relocated to the relocation site in Barangay Paitan, Dalipuga, and Iligan city after the typhoon.

Data collection procedures: Data for this study were collected through in-depth, semi-structured interviews with the participants who took place one year after the tragedy. The interviews were conducted face to face using a pre-determined interview guide that focused on the participants' experiences during and after the sendong typhoon [18]. The interviews were audio recorded and transcribed verbatim for analysis. Other sources of data, such as news articles and official reports, were also reviewed to provide additional context to the participants' experiences.

**Data analysis procedures:** The data collected from the interviews and other sources were analyzed using an IPA approach. The analysis involved multiple stages of coding and thematic analysis. The first stage involved reading and re-reading the transcripts to identify initial codes that captured the participants' experiences. The second stage involved grouping the initial codes into broader themes. The final stage involved interpreting the themes to generate a rich, in-depth understanding of the participants' experiences. The analysis was conducted by the primary researcher and verified by a second researcher to ensure inter-rater reliability.

#### Validity and reliability

Validity and reliability are critical aspects of research that contribute to the overall quality and credibility of a study. In the case of this study, several steps were taken to ensure the validity and reliability of the study's findings.

In terms of validity, several measures were taken to ensure the accuracy and trustworthiness of the findings. Face validity was established by reviewing the transcripts and confirming that they accurately reflected the experiences and perceptions of the participants, as recommended by Smith, et al., construct validity was ensured by using multiple coders and conducting member checking to confirm the accuracy of the interpretations. To establish internal validity, detailed records of the analysis process were maintained, and quotes from the participants were included to support the findings.

In terms of reliability, measures were taken to ensure consistency and reproducibility of the results. To establish inter coder reliability, two independent coders were used, and Cohen's kappa coefficient was calculated to assess the degree of agreement between them, as recommended by Hallgren, et al. Intra coder reliability was established by periodically reviewing the coding and analysis methods to ensure consistency. The reliability of the findings was also established by using member checking to confirm the accuracy of the interpretations with the participants, as recommended by Smith, et al. These measures helped to increase the credibility and dependability of the findings, enhancing the validity and reliability of the study.

## DISCUSSION

Overview of the experiences of deluge victims in Iligan city following typhoon sendong. The analysis of the participants' interviews and other sources of data provided an in-depth understanding of the experiences of deluge victims in Iligan city following the sendong typhoon in 2011. The participants described the typhoon as a traumatic event that caused extensive damage to their homes and belongings, disrupted their daily lives, and resulted in the loss of loved ones and community members (Figure 1) [19].



Figure 1: The above image shows city affected by typhoon Sendong.

Key themes and patterns identified through IPA analysis: The IPA analysis identified several key themes and patterns in the participants' experiences. One of the main themes was the psychological and emotional impact of the flood, with many participants describing feelings of fear, anxiety, and sadness in the aftermath of the disaster. Another theme was the coping strategies employed by the participants, including seeking social support, engaging in religious activities, and focusing on positive aspects of their situation (Table 1).

Participants	Narrative
#1	<b>Jeepney driver:</b> (Experiencing extensive damage to their homes and belongings). It's very bitter; nothing can match my feelings even if it's been a year. All of our possessions were destroyed, even the pillars of our house, everything was swept away by the flood.
#2	<b>Factory worker:</b> (Disrupted their daily lives). My whole family seems to have been wiped out suddenly. Who cares because I was already sleeping, and when we suddenly woke up? I thought I was going to die.
#3	Housewife: (Loss of loved ones and community members). Huhuhu, I will not forget no matter what. My son, there is no life that I held after

Table 1: Summary of the information gathered.

	the flood. Many of my neighbors, I wonder where they are going to gono more.
#4	<b>Student:</b> (Psychological and emotional impact). Ah, seriously, sir, I feel like I'm going crazy. Instead, I'm still planning to sing with our friends because it's Christmas, but, I don't know. To this day I have not accepted what happened. You disturb my brain, Sir. I don't understand what I feel.
#5	<b>Teacher:</b> (Feelings of sadness). There is no reason for my sadness. I may not be able to recover from this feeling. Why is that?
#6	<b>Vendor:</b> (Theme was the coping strategies employed by the participants, including seeking social support,) Sos, in my poverty, the pain given by Sendong was really severe. But God's mercy, it seems that only I will be accepted. I will walk as if my feet are not touching the ground, sos, Lord. But, I am relieved, God is there.
#7	<b>Store owner:</b> (Engaging in religious activities, and focusing on positive aspects of their situation). I am thankful that despite what happened, there were helpers that we received. I did not lose hope. I will continue to worship. There were activities in the church that helped us.
#8	<b>Beautician:</b> Revealed patterns of adaptation and adjustment among the participants. I think it's the end of my life, oh. But, I survived. After a year, I have to adapt to the truth, because no matter what, I can't judge us from above. Let's just adjust.
#9	<b>Fisherman:</b> Showing patterns of adaptation and adjustment observed among the participants. Of all the hardships I've been through, it seems that there is nothing better than Sendong. But, there is hope. Because the Lord has given us life, so, let's continue.
#10	<b>Government employee:</b> (Showing feelings of fear, anxiety). My fear and anxiety are indescribable, Sir. It's raining, sos, it's really cheap and my body and soul are separated. My trauma is bad, really bad. Look at my side and head wounds, sir? It's through the logs. Because if I don't hold it, then, nothing. I don't think so.

Note: Narratives of the informants were written in vernacular (sebuano) to preserve the authenticity and nuances of the informants' profound and in-depth experiences.

The analysis also revealed patterns of adaptation and adjustment among the participants, with some describing a renewed sense of purpose and appreciation for life following the disaster. Additionally, many participants expressed a desire to help others and contribute to their community's recovery.

Discussion of the psychological and emotional impact of the flood, coping strategies employed, and ways of adaptation and adjustment. The findings of this study highlight the significant psychological and emotional impact of natural disasters on individuals, particularly those who have experienced significant losses and disruptions to their daily lives. The coping strategies employed by the participants suggest that social support and engagement in meaningful activities can help individuals to cope with the emotional and psychological effects of disaster [20].

The patterns of adaptation and adjustment observed among the participants suggest that individuals can find ways to rebuild their lives following a traumatic event, and may even experience personal growth and development as a result. However, it is important to note that the experiences of deluge victims are complex and multifaceted, and require ongoing support and resources to facilitate recovery and healing.

Overall, this study provides valuable insights into the experiences of deluge victims in Iligan city following the sendong typhoon, and highlights the need for continued research and support for individuals and communities affected by natural disasters.

#### Implications and recommendations

**Implications for practitioners and policymakers:** The findings of this study have several implications for practitioners and policymakers working with deluge victims and communities affected by natural disasters. Firstly, the psychological and emotional impact of the flood highlights the need for mental health support and interventions that address the emotional needs of disaster survivors. Practitioners and policymakers should consider the implementation of trauma focused interventions and psychotherapeutic support for individuals and communities affected by natural disasters.

Secondly, the coping strategies employed by the participants suggest the importance of social support and community engagement in disaster recovery. Practitioners and policymakers should prioritize the development of social support networks and community-based interventions that promote resilience and positive coping strategies.

Thirdly, the patterns of adaptation and adjustment observed among the participants highlight the potential for personal growth and development following a traumatic event. Practitioners and policymakers should consider the implementation of interventions that facilitate post-traumatic growth and promote positive psychological outcomes.

**Recommendations for future research:** The findings of this study suggest several areas for future research on the experiences of deluge victims and communities affected by natural disasters. Firstly, future research should explore the long term effects of natural disasters on individuals and communities, including the potential for post-traumatic growth and the development of resilience.

Secondly, future research should investigate the effectiveness of different interventions and support services for disaster survivors, including trauma focused interventions and community based interventions that promote resilience and positive coping strategies.

Finally, future research should examine the role of social support and community engagement in disaster recovery, including the development of social support networks and community based interventions that promote resilience and positive coping strategies.

Overall, this study provides valuable insights into the experiences of deluge victims in Iligan city following the sendong typhoon, and highlights the need for continued research and support for individuals and communities affected by natural disasters.

# CONCLUSION

This study aimed to explore the experiences of deluge victims in Iligan city following the sendong typhoon using Interpretative Phenomenological Analysis (IPA). The study found that the flood had a significant psychological and emotional impact on the participants, with several key themes and patterns emerging from the IPA analysis.

Firstly, the flood had a profound impact on the participants' emotional well-being, with many reporting feelings of fear, helplessness, and anxiety in the aftermath of the disaster. Participants also reported experiencing a loss of personal identity and a sense of disconnection from their communities.

Secondly, the coping strategies employed by the participants highlighted the importance of social support and community engagement in disaster recovery. Many participants reported relying on their social networks and engaging in community based activities as a way of coping with the emotional aftermath of the flood.

Finally, the patterns of adaptation and adjustment observed among the participants suggest the potential for personal growth and development following a traumatic event. Many participants reported experiencing positive changes in their personal outlook and developing a sense of gratitude and appreciation for life following the flood.

# Limitations of the study and directions for future research

One limitation of this study is the small sample size, which may limit the generalizability of the findings. Additionally, the study only focused on the experiences of deluge victims in Iligan city and did not include perspectives from other affected communities.

Future research should aim to replicate these findings in larger, more diverse samples and include perspectives from a broader range of affected communities. Additionally, future research should explore the long-term effects of natural disasters on individuals and communities, including the potential for posttraumatic growth and the development of resilience.

Overall, this study provides valuable insights into the experiences of deluge victims in Iligan city following the sendong typhoon, and highlights the need for continued research and support for individuals and communities affected by natural disasters.

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