



Exploring the Psychological Adaptation of Sudden Bereavement Due to Catastrophic Firecracker Explosion at Barangay Bigaa

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Abstract

This study, entitled "Exploring the Psychological Adaptation of Sudden Bereavement Due to a Catastrophic Firecracker Explosion at Barangay Bigaa" aimed to determine the psychological adaptation of individuals who experienced sudden bereavement due to firecracker factory explosion incident at Barangay Bigaa. The researchers will focused on comprehending the coping mechanisms of residents of barangay bigaa who experienced sudden loss of their loved ones caused by unexpected firecracker explosion. The researchers used thematic analysis to examined the responses of participant affected by the firecracker explosion and will focused on their psychological process such as the development of coping mechanism, coping strategies, resilience, and adjustment to normalcy after the sudden loss of their loved ones. The findings of this research will enhance the understanding regarding the process of psychological adaptation of individuals who experienced the catastrophic firecracker explosion. This understanding can be the foundation for the development of effective support system and interventions for future crises.

Keywords: Psychological adaptation, Sudden bereavement, Firecracker explosion, Coping mechanisms, Coping strategies, Resilience, Support system

1. Introduction

Firecrackers are commonly associated with joyous celebrations such as festivals, New Year, and Christmas because of their colorful displays and loud sounds that bring people together. Globally, people use firecrackers for different reasons, and the market continues to grow. According to Business Research Insight (2024), the global fireworks market was valued at USD 2,687.5 million in 2022 and is projected to reach USD 3,792.21 million by 2031, growing at a rate of 3.9%. However, as the market expands, so do the dangers, especially factory explosions.

Several tragic incidents have been recorded. In India, explosions in fireworks factories have killed multiple workers, including 8 people in southern India in 2024, 17 in New Delhi in 2018, and 23 in Madhya Pradesh in 2017. In Thailand, at least 23 people were killed in a central fireworks factory explosion. These events reveal unsafe working conditions and the prioritization of profit over worker safety. In the Philippines, firecrackers are deeply embedded in cultural practices. They are believed to drive away evil spirits, remove bad luck, and attract wealth. Despite safety debates and regulations, they remain a central part of Filipino customs. But their continued use comes with risks.

On February 1, 2024, an explosion occurred at a fireworks factory in Barangay Bigaa, Cabuyao, Laguna. It caused deaths, injuries, and property destruction. Initially, two workers died and six were injured. By February 3, the death toll rose to five. Residents suffered not only financially but also psychologically, mourning the sudden loss of loved ones.

Firecracker-related injuries are not just physical. In the Netherlands, severe hand injuries due to firecrackers have had long-term functional and psychological effects on adolescents and their families (Van De Kar, A.L. *et al.*, 2021).

In the U.S., loud fireworks have triggered mental health issues in people with PTSD (Mallard, C., 2020). In the Philippines, the Department of Health consistently reminds the public of the dangers during holidays, reporting numerous injuries and raising concerns over psychological stress.

This study aims to explore psychological adaptation following sudden bereavement caused by the Barangay Bigaa explosion. It focuses on how individuals from different backgrounds react to the same traumatic event and seeks to fill a gap in understanding the mental health impact of such disasters, with the goal of supporting more effective interventions.

2. Methodology

A. Research Design

The researchers used narrative research as a qualitative design. According to Ntinda (2020), narrative research aimed to unravel consequential stories of people's lives as told by them in their own words and worlds.

B. Research Locale

This study was conducted in Barangay Bigaa, Cabuyao,

Laguna. The researchers chose Barangay Bigaa as the research locale because they sought to explore the psychological adaptation to sudden bereavement caused by a firecracker explosion that occurred at the firecracker factory in the area.

C. Population and Sampling

The participants of the study were residents of Barangay Bigaa who experienced sudden bereavement due to the catastrophic firecracker explosion. The researchers employed purposive sampling to identify participants best suited to the study's objective. According to Crossman (2020), a purposive sample is a non-probability sample selected based on the characteristics of a population and the objectives of the study.

D. Research Participants

The participants of this study will comprise five residents of Barangay Bigaa. Cabuyao, Laguna, who experienced sudden bereavement due to the firecracker explosion at Barangay Bigaa.

Table 1: Eligible Criteria

INCLUSION CRITERIA	EXCLUSION CRITERIA
The researchers included first-degree family members who experienced sudden bereavement due to the firecracker explosion in Barangay Bigaa.	The researchers excluded residents who did not experience bereavement due to the explosion.
They included residents who experienced the incident within the past 6–9 months. According to Mathieu et al. (2022), six months after the death of a close family member, comparable coping mechanisms were observed across mourning groups.	Children who lost their parents in the explosion were excluded due to informed consent limitations and their vulnerability to trauma.
	Traumatized and physically injured residents were also excluded.

E. Research Instrument

The researchers utilized a self-made interview questionnaire aligned with the research questions. They conducted pilot interviews and refined the interview protocol to minimize potential distress to participants.

F. Data Gathering Procedure

The researchers structured the study using a qualitative design. They sent letters to the Barangay Bigaa office to identify potential participants and distributed consent forms prior to interviews.

G. Ethical Consideration

The study adhered to ethical principles by obtaining informed consent, ensuring voluntary participation, and allowing withdrawal at any point. Confidentiality was maintained under the Data Privacy Act of 2012. Psychologists were available during interviews to manage potential distress.

H. Treatment of Qualitative Data

The researchers used thematic analysis to process the qualitative data and developed coherent narratives that emphasized critical findings. The interviews provided insight into how participants psychologically adapted to bereavement. Themes were extracted from participants' shared experiences, and their coping strategies were categorized accordingly. The researchers summarized and analyzed the data to improve credibility and accuracy.

3. Result and Discussion

This chapter presents, interprets, and analyzes the data gathered by the researchers. This study aimed to determine the Psychological adaptation of sudden bereavement due to a catastrophic firecracker explosion at Barangay Bigaa. Through the process of categorizing, coding, and developing themes. The researchers examined the information acquired from the participant response using thematic analysis.

Table 2: Superordinate Themes and Subordinate Themes

SUPEORDINATE THEMES	SUBORDINATE THEMES
Adjustment to Normalcy	<ul style="list-style-type: none"> ● Persistent Emotional Struggles ● Time-Dependent Recovery
Coping and Moving Forward	<ul style="list-style-type: none"> ● Seeking Support ● Finding Strength in Family
Coping with Painful Memories	<ul style="list-style-type: none"> ● Emotional Release and Acceptance ● Seeking Distraction and Comfort
Source of Strength	<ul style="list-style-type: none"> ● Support from Family ● Motivation from Loved Ones
Trust and Safety Concerns	<ul style="list-style-type: none"> ● Heightened Anxiety ● Erosion of Trust
Coping Mechanism	<ul style="list-style-type: none"> ● Seeking Solace in Activities ● Finding Strength in Faith and Work
Lesson in Resilience	<ul style="list-style-type: none"> ● Encouragement to Stay Strong ● Faith as a Source of Strength
Mental Adjustment Factors	<ul style="list-style-type: none"> ● Emotional Struggles ● Attempts at Distractions
Coping with Changes	<ul style="list-style-type: none"> ● Maintaining Traditions ● Finding Purpose in Work
Received and Lacking Support	<ul style="list-style-type: none"> ● Financial Assistance ● Lack of Psychological Support

Table 1 shows that in this research, there are ten (10) superordinate themes that discuss the exploration of psychological adaptation of sudden bereavement due to catastrophic firecracker explosion at barangay Bigaa namely: (1) Adjustment to Normalcy, (2) Coping and Moving

Forward, (3) Coping with Painful Memories, (4) Source of Strength, (5) Trust and Safety Concerns, (6) Coping Mechanism, (7) Lesson in Resilience, (8) Mental Adjustment Factors, (9) Coping with Changes, (10) Received and Lacking Support

Table 2: Proposed Program Plan Leading to the right PATH (Psychological Assistance Through Healing)

Psychological Program: Leading to the right PATH (Psychological Assistance Through Healing)					
Activities:	Description of Activities:	Activity Duration	Person Involved	Budget Allocation	Success of Activities
Seminars Delegation of Psychological First Aider per Local Government Outreach Program	The program aims to provide comprehensive support to the residents of Cabuyao City. It recognizes the critical importance of implementing psychological programs like ours to mitigate mental health challenges in the aftermath of potential tragic events. This initiative seeks to prepare both residents and local government officials for future crises.	1. Seminars: 1 Day 2. Delegation of Psychological First Aiders: 1 week 3. Outreach Program : 1 Day	Target Participants: 1. Residents of Cabuyao City 2. Local Government Officials Resource Persons: 1. Licensed psychologists or counselors 2. Trained facilitators for Psychological First Aid	A detailed budget will be prepared to cover the following: 1. Venue rental for seminars 2. Training materials (e.g., handouts, manuals) 3. Fees for resource persons 4. Transportation and logistics for outreach activities 5. Communication and promotional materials	1. Increased mental health literacy among participants 2. Establishment of a trained network of Psychological First Aiders in each local government unit. 3. Positive feedback from residents involved in the outreach program 4. Visible improvements in the well-being of residents affected by tragic events By achieving these outcomes, the program will contribute to building a more resilient and mentally healthy Cabuyao City.

The program emphasizes educating the community and local officials about the significance of Psychological First Aid (PFA) and mental health preparedness. The goal of this program is to enhance mental health literacy among Cabuyao residents and local government units. By doing so, we aim to foster a community that is better prepared to address mental health concerns and advocate for the importance of sustainable mental health programs. This initiative represents a step forward in building a more resilient and mentally healthy society.

4. Discussion

The ten superordinate themes reveal the complex and multifaceted nature of participants' experiences as they suffer from the loss of loved ones and are in the process of recovery. They highlight the emotional and psychological challenges faced, the importance of support systems, and the various coping strategies participants employ to manage their emotional pain and adjust to new circumstances. These themes underscore the role of family, faith, personal strength, and the need for trust and safety in overcoming hardships. In conclusion, the themes collectively illustrate how participants adapt to life's difficulties, demonstrating resilience through personal growth, coping mechanisms, and critical support from others. They provide valuable insights into the diverse ways people respond to and heal from distressing experiences, emphasizing the importance of time, emotional expression, and support in the journey toward recovery and normalcy.

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