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Assessing Psychotrauma and Perspective of Emergency Responders in Balanga City, Bataan: A Foundation for Psychotrauma Management Program Development

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ABSTRACT

Emergency responders often put themselves in a stressful situation or event that makes them at risks in developing psychotrauma. This study aimed to assess the extent of psychotrauma experienced by emergency responders in Balanga City, Bataan, Philippines and examines how symptoms of psychotrauma were related to demographics of the respondents. A convergent parallel mixed-methods design was employed with 44 emergency responders from the City Disaster Risk Reduction and Management Office (CDRRMO) and the Health Emergency Management Services (HEMS). The Impact of Event Scale-Revised was used to collect quantitative data, and semi-structured interviews were conducted to gather qualitative data. Descriptive statistics, Correlations analysis, and thematic analysis were conducted. Overall, the IES-R scores (M=20.023, SD=14.696) remained below the clinical threshold, however variation were noted across demographic group. Responders in the middle of their career who were 40-49 years old had the highest trauma levels (M=26.300, SD=15.225) with elevated intrusion (M=9.000) and avoidance (M=10.600) symptoms. Male responders demonstrated higher psychotrauma scores (M=21.226, SD=15.416) than females (M=17.154, SD=12.928). Qualitative analysis revealed five themes: Desensitization and Adaptation, Diverse coping Mechanism, Emotional Impact, Work-life Balance Boundaries, and Vicarious Trauma. While emergency responders generally experience low level of psychotrauma, mid-career professionals and males represent vulnerable subgroups requiring targeted intervention. The findings support the development of PAGHILOM (Psychotrauma Awareness, Growth, and Healing through Integrated Learning & Organizational Management) to address identified needs.

INTRODUCTION

Emergency Responders (ERs) such as Paramedics, Rescue teams, Firefighters and Law Enforcement frequently encounter an intense and life-altering situations that put them in a high risk for developing psychotrauma (Cogan *et al.*, 2024). These professionals are the first group of people that respond during crises, exposing them to events such as natural disasters, accidents, and violence, that can have a long-lasting effect on their general well-being including mental health (Tessier *et al.*, 2022). According to Alghamdi (2022), the cumulative effects of these experiences may result in psychotrauma including disorder such as Post-Traumatic Stress Disorder or PTSD, Burnout, Anxiety, and depression. Based on the study conducted by Siwinski & Blankeship (2024), that the emergency responders PTSD rate is 3.9% to 32% higher than the general population. This heightened susceptibility underscores the pressing need for targeted interventions and for establishing a strong support system to mitigate the psychological impact of their demanding roles and promote their long-term mental health and resilience (Thompson & Drew, 2020). Accordingly, the repeated exposure to critical incidents significantly increases the risk of developing symptoms like intrusion, avoidance, and hyperarousal, underscoring the importance of understanding specific vulnerability factors within this population (Bakirci *et al.*, 2024; Kerai

et al., 2017).

In a resource-constrained setting like the Philippines, understanding these coping mechanisms becomes more difficult given the potential for limited access to formal mental health services. The unique cultural, organizational, and systemic factors within the Philippines context may influence how emergency responders experience and cope with occupational trauma (Dewi *et al.*, 2023; Tad-awan *et al.*, 2024). Understanding these local factors is crucial for developing culturally appropriate and contextually relevant interventions. This gap in local research underscores the need for studies that specifically address the mental health challenges faced by Filipino emergency responders, especially those operating in high-risk areas lie some part of Balanga City, Bataan

The present study addresses this research gap by examining the psychotrauma experiences and perspective of emergency responders in Balanga City, Bataan, Philippines. This research aligns directly with Sustainable Development Goal 3 (SDG 3), which focuses on ensuring healthy lives and promoting well-being for all ages, by specifically targeting the mental health of an occupational group critical to public safety and disaster response. Specifically, it seeks to provide a foundation understanding for the development of tailored psychotrauma management programs, addressing the unique needs and vulnerabilities identified within this

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specific demographic. The insights gained from this study will inform evidence-based intervention and policies aimed at enhancing the psychological well-being and operational readiness of emergency responders in similar contexts (Anderson *et al.*, 2022; Di Nota *et al.*, 2021).

The study objectives are: (1) to assess the extent of psychotrauma among emergency responders using the Impact of Event Scale-Revised (IES-R); and (2) to explore emergency responder's perspective regarding psychotrauma and its impact on their lives and work.

LITERATURE REVIEW

Psychotrauma in Emergency Responders: Global Perspective

The Literature on emergency responder mental health reveals significant concerns regarding psychotrauma prevalence and its impact on this critical workforce. Emergency responders face unique occupational hazards that extend beyond physical risks to encompass substantial psychological burdens stemming from repeated exposure to traumatic events (Cogan *et al.*, 2024). Research has consistently demonstrated that emergency responders experience elevated rates of post-traumatic stress disorder, with prevalence rates ranging from 3.9% to 32%, significantly higher than the general population (Siwinski & Blankenship, 2024). This elevated risk underscores the necessity for comprehensive understanding of the factors contributing to psychotrauma development and persistence among these professionals

Current literature indicates that emergency responders employ several coping mechanisms, ranging from more adaptive strategies, such as seeking social support, to less adaptive approaches, including emotional suppression and avoidance (Díaz-Tamayo *et al.*, 2022). In the view of Miethe *et al.* (2023), avoidance may yield a temporary functional advantage but could hinder trauma processing in a prolonged and persistent avoidance that could lead to a more serious long-term effect.

Theoretical Frameworks for Understanding Psychotrauma

Theoretical Frameworks provides essential lenses for understanding the mechanisms underlying psychotrauma in emergency responders. Hobfoll's Conservation of Resources (COR) Theory (Hobfoll, 1989), posits that individuals strive to obtain, retain, and protect resources, and stress results from actual or threatened loss of these resources, thereby explaining the psychological impact of critical incidents on emergency responders. Additionally, the Transactional Model of Stress and Coping (Lazarus & Folkman, 1987) provide a framework for analyzing the dynamic interplay between the emergency responder's appraisal of a stressful event and their subsequent coping responses, which can be further influenced by various personal and environmental factors. Finally, the Posttraumatic Growth Theory (Tedeschi *et al.*,

1998) suggests that individuals can experience positive psychological change and personal growth following traumatic experiences, offering an optimistic perspective on resilience and recovery. These theoretical frameworks collectively inform the comprehensive approach taken in this research to investigate psychotrauma and its management among emergency responders in the Philippines, guiding the interpretation of both quantitative and qualitative findings.

Coping Mechanisms and Their Effectiveness

Current literature indicates that emergency responders employ several coping mechanism, ranging from more adaptive strategies, such as seeking social support, to less adaptive approaches, including emotional suppression and avoidance (Díaz-Tamayo *et al.*, 2022). Empirical research has identified diverse coping mechanisms employed by emergency responders, with effectiveness varying across demographic groups. Gender and career stage have emerged as important moderating factors (Martínez-Caballero *et al.*, 2023). In the view of Miethe *et al.* (2023), avoidance may yield a temporary functional advantage but could hinder trauma processing in the prolonged and persistent avoidance that could lead to a more serious-long term effect. While avoidance strategies may provide temporary relief, prolonged reliance on such mechanisms can hinder trauma processing and contribute to chronic psychological distress. The effectiveness of different coping strategies in preventing long term psychotraumatic consequence requires additional investigation, particularly considering the documented associations between maladaptive coping and increased vulnerability to mental health disorders among emergency service personnel (Kyron *et al.*, 2020).

Demographic Factors and Vulnerability

Demographic factors have been shown to influence psychotrauma vulnerability among emergency responders. Research indicates that cumulative exposure to critical incidents over time can lead to increased psychological distress, with mid-career professionals potentially facing heightened risk due to accumulated trauma exposure (Cruz *et al.*, 2025; Rowe *et al.*, 2020). According to Nagamine *et al.* (2020), long term exposure to traumatic events creates a threshold effect of chronic occupational exposure, where years of service contribute to accumulated psychological burden. The literature suggests that career stage plays a significant role in trauma manifestation, with varying levels of vulnerability across different phases of professional development (Martínez-Caballero *et al.*, 2023). Gender differences in psychotrauma presentation and coping have also been documented, though findings vary across cultural context (Kerai *et al.*, 2017; Fonseca *et al.*, 2021). Cultural norms regarding emotional expression and help-seeking behavior may significantly influence how emergency responders experiences and report psychological distress (Cho *et al.*, 2023)

The Philippine Context: Cultural and Organizational Factors

Despite growing recognition of mental health challenges facing emergency responders globally, significant gaps exist in understanding these issues within specific cultural and organizational context. The Philippines, with unique cultural values, resources constraints, and disaster exposure patterns, presents a distinct context that warrants targeted investigation (Dewi *et al.*, 2023; Tadawan *et al.*, 2024). Cultural concepts such as *hiya* (shame) may influence help-seeking behaviors and symptom reporting among Filipino emergency responders, potentially leading to under recognition of mental health needs (Agbayani *et al.*, 2018). Furthermore, limited access to formal mental health services in resource-constrained settings necessitates understanding of informal support systems and indigenous coping mechanisms that may protect or exacerbate psychotrauma risk.

Organizational Support and Barriers

The literature highlights the importance of organizational factors in shaping emergency responders' mental health outcomes. Workplace policies, peer support systems, and access to psychological services significantly influence both psychotrauma development and recovery trajectories (Lawn *et al.*, 2020; Johnston *et al.*, 2025). However, barriers to organizational support persist, including stigma surrounding mental health, concerns about career implications, and inadequate training in psychological First Aid (O'Toole *et al.*, 2022). Beyond basic first aid training, evidence suggests that structured communication training for organizational leadership and mental health professionals may enhance therapeutic outcomes for emergency responders (Joseph, 2025). These organizational challenges underscore the need for comprehensive, multi-level interventions that address individual, interpersonal, and systemic factors contributing to psychotrauma among emergency responders. Research indicates that unwillingness to discuss work-related stressors with family members is common barrier to seeking formal social support, which can lead to isolation and slower mental recovery (Lawn *et al.*, 2020).

Posttraumatic Growth and Resilience

Posttraumatic Growth Theory (Tedeschi *et al.*, 1998) offers an optimistic perspective by suggesting that individuals can experience positive psychological transformation following traumatic experiences. This framework emphasizes potential for growth in domains including personal strength, relationships, appreciation of life, new possibilities, and spiritual development. For emergency responders, intervention that facilitate meaning-making and cognitive restructuring may promote resilience and posttraumatic growth alongside symptom reduction (Shorer *et al.*, 2024). This strength-based approach complements traditional trauma-focused interventions by recognizing emergency responders' capacity for adaptation and growth.

Research Gaps and Study Rationale

Existing research provides valuable insights into psychotrauma among emergency responders but leaves important questions unanswered, particularly regarding context-specific manifestation and culturally appropriate intervention. The present study addresses these gaps by examining psychotrauma experiences among emergency responders in Balanga City, Bataan, Philippines, employing a mixed-methods approach to capture both quantitative patterns and qualitative lived experiences. This research aims to provide empirical foundation for developing tailored interventions that address the unique needs and vulnerabilities of Filipino emergency responders while contributing to broader understanding of psychotrauma in diverse cultural contexts.

MATERIALS AND METHODS

Research Method

This study employs a convergent parallel mixed-methods design (Creswell, 2003), collecting and analyzing quantitative and qualitative data with equal weight to each strand. The two strands remain independent during initial analysis, and the findings are integrated during the interpretation phase to provide a comprehensive understanding of psychotrauma among emergency responders.

Respondents/Participant/Subjects of the Study

The participants in this study are Emergency Responders in Balanga City, Bataan, particularly from the Health Emergency Management Systems (HEMS) and the City Disaster Risk Reduction and Management Office (CDRRMO). The study included 44 emergency responders. Their age range is 20-50 years, and they have been emergency responders for the past 6 months. More so, they are not undergoing psychological services like counseling, psychotherapy, or social support groups, or any psychotropic medicines.

Sampling Techniques

Purposive sampling was employed in this study to include personnel from the City Disaster Risk Reduction Management Office (CDRRMO) and Health City Emergency Management System (HEMS). This technique was chosen to ensure the inclusion of participants directly involved in emergency response operations, thereby providing rich and relevant data for understanding psychotrauma within a specific population (Oliveira *et al.*, 2023).

Inclusion and Exclusion Criteria

Inclusion Criteria: The chosen responders were first, an active member of emergency response, Second, employed for at least 1 year on a permanent status, third, must be of legal age, and fourth, a Filipino citizen. Exclusion criteria were the personnel who are not in permanent employment status, Second, under a year of

permanent employment, third, diagnosed with mental health challenges, or involved in psychotherapy or any other intervention program.

Research Instruments/Study Tools

Quantitative Instrument

The major tool for assessing psychotrauma symptoms was the Impact of Event Scale-Revised (IES-R). This extensively validated 22-item self-report scale is aligned with the diagnostic criteria for post-traumatic stress disorder (PTSD) outlined in the DSM-5. It offers a systematic assessment of symptoms related to post-traumatic stress, including intrusion, avoidance, and hyperarousal. Each item is rated on a 5-point Likert scale, ranging from “not at all” to “extremely”, allowing for a nuanced quantification of symptom severity and frequency (Chen *et al.*, 2021). Internal consistency has been reported as highly reliable in previous studies (Intrusion: $\alpha=0.88$, Avoidance: $\alpha=0.89$, Hyperarousal: $\alpha=0.79$) (Creamer *et al.*, 2003).

Qualitative Instrument

A semi-structured interview guide was created to investigate the qualitative research inquiries. The guide included topics such as encounters with traumatic incidents, strategies for managing stress, obstacles in accessing assistance, and factors that encourage seeking support. The interview guide was developed using a methodical approach, which involved identifying crucial elements of psychotrauma and creating specific questions for each of these areas. The guide was subsequently improved through the incorporation of feedback from qualitative research specialists and mental health practitioners to guarantee precision and thoroughness.

Data Gathering Procedures

Individual participants were recruited through purposive sampling after obtaining agency consent. All participants were provided a written consent to collect the quantitative data needed for the study. Data collection was facilitated by the researchers individually by providing a printed copy of the IES-R tools, allowing for efficient and confidential acquisition of responses. The qualitative data collection involved audio-recorded, one-on-one interviews lasting approximately 60-90 minutes, conducted in a private setting to ensure respondents comfort and confidentiality.

Statistical Treatment of Data

Quantitative data were analyzed using descriptive statistics (mean, standard deviation, frequency) to

characterize participants’ demographics and trauma symptom levels. Spearman’s rho correlation was used to examine relationships between variables, given the non-parametric nature of the data. IES-R total scores and subscale scores were calculated for the overall sample and compared across demographic subgroups. The qualitative data analysis followed the descriptive phenomenological analysis by Colaizzi’s, involving systematic steps to extract and interpret themes from the verbatim interview transcripts, ensuring rigor and validity in the emergent findings (K.R. & Sasikumar, 2021).

Ethical Consideration

The researchers secured permission from the Bataan Peninsula State University and the target agencies (HEMS and CDRRMO) prior to data collection. Informed consent was obtained from all participants, ensuring confidentiality and anonymity. Participants were informed of their right to withdraw from the study at any time without penalty. All collected data were anonymized and stored securely to maintain participant privacy and prevent unauthorized access.

RESULTS AND DISCUSSION

Demographic Profile of the Participants

The study included 44 emergency responders from the Office of Health Emergency Management Services (HEMS) and City Disaster Risk Reduction Management office (CDRRMO) -Balanga City, Bataan, Philippines. The sample predominantly consisted of male participants (70.5%, n=31), with ages distributed across four categories: 20-29 years (32.6%, n=14), 30-39 years (50.0%, n=22), 40-49 years (22.7%, n=10), and 50-69 years (11.4%, n=5). Years of experience ranged broadly, with most participants (65.9%, n=29) having 1-9 years of experience.

Quantitative Findings

Total IES-R Score

Descriptive analysis revealed that emergency responders experienced varying levels of psychotrauma symptoms, with an overall IES-R score of 20.023 (SD = 14.696), indicating subclinical trauma-related distress below the clinical threshold of 26. Among subscales, avoidance symptoms were most pronounced (M = 8.045, SD = 6.015), followed by intrusion symptoms (M = 7.364, SD = 5.528), with hyperarousal symptoms being least reported (M = 4.614, SD = 4.282).

Psychotrauma Across Age Group

Table 1: Descriptive statistics of the IES-R and its sub-domains

Subscales	Mean	Standard Deviation
Intrusion	7.364	5.528
Avoidance	8.045	6.015
Hyperarousal	4.614	4.282
Total IES-R Scores	20.023	14.696

Significant variations emerged across age groups, with respondents aged 40-49 years reporting the highest overall IES-R scores ($M = 26.300$, $SD = 15.225$), reaching the clinical threshold. This group exhibited the highest scores across all subscales: intrusion ($M = 9.000$), avoidance ($M = 10.600$), and hyperarousal ($M = 6.700$). Conversely, respondents aged 30-39 years demonstrated the lowest trauma scores ($M = 17.045$, $SD = 14.214$). These findings are aligned with the existing literature suggesting that cumulative exposure to critical incidents over time can lead to increased psychological distress in emergency

personnel (Cruz *et al.*, 2025). Accordingly, Rowe *et al.* (2020), suggests that elevated scores among responders aged 40-49 years may indicate a threshold effect of chronic occupational exposure, where years of services accumulated a greater psychological burden. Conversely, younger responders may have had less cumulative exposure to traumatic events (Martínez-Caballero *et al.*, 2023). These observations indicate the most vulnerable period of the emergency responders' career were in this stage. Emphasizing the need for a targeted mental health intervention during mid-career phases.

Table 2: Descriptive statistics of the IES-R according to the respondents' age

Age Group	Intrusion M(SD)	Avoidance M(SD)	Hyperarousal M(SD)	Total IES-R M(SD)
20-29	7.571 (6.680)	8.571 (6.925)	5.714 (4.680)	21.857 (16.587)
30-39	6.500 (5.612)	7.091 (5.764)	3.455 (3.725)	17.045 (14.214)
40-49	9.000 (5.518)	10.600 (6.310)	6.700 (4.968)	26.300 (15.225)
50-59	7.600 (4.099)	6.400 (5.273)	4.000 (3.873)	18.000 (12.981)

Gender Differences in Psychotrauma

Male emergency responders exhibited higher psychotrauma levels ($M = 21.226$, $SD = 15.416$) compared to females ($M = 17.154$, $SD = 12.928$). Males scored higher across all subscales, particularly in intrusion ($M = 7.935$ vs. $M = 6.000$) and avoidance ($M = 8.484$ vs. $M = 7.000$). These findings underscore the necessity for gender-specific psychotrauma interventions, as previous research has indicated varying mental health outcomes between male and female emergency personnel (Martínez-Caballero *et al.*, 2023). This disparity suggests that male responders may face unique stressors or employ different coping mechanisms, warranting further investigation into these gender-based differences (Fonseca *et al.*, 2021).

Such variations may stem from differing occupational roles, exposure to specific types of traumatic events, or the influence of cultural norms on symptom reporting and help-seeking behaviors (Kerai *et al.*, 2017) (Oliveira *et al.*, 2023). In Philippines context, there is a concept of HIYA or shame that may influence how male emergency responders perceive and report their psychological distress, potentially leading to underreporting or delayed recognition of psychotrauma symptoms, contrasting with findings in other contexts where females may report higher stress and anxiety (Cho *et al.*, 2023).

Psychotrauma by years of Experience

Analysis of trauma levels based on years of experience revealed that mid-career emergency responders (10-19

Table 3: Descriptive statistics of the IES-R according to the respondents' sex

Sex	Intrusion M(SD)	Avoidance M(SD)	Hyperarousal M(SD)	Total IES-R M(SD)
Male	7.935 (5.385)	8.484 (6.334)	4.806 (4.629)	21.226 (15.416)
Female	6.000 (5.845)	7.000 (5.260)	4.154 (3.436)	17.154 (12.928)

years of service) exhibited the highest IES-R scores ($M = 25.375$, $SD = 17.113$), approaching the clinical threshold. In contrast, those with 1-9 years of experience ($M = 18.857$, $SD = 14.304$) and 20-29 years of experience ($M = 18.000$) reported mild trauma levels. This suggests that while initial exposure may not immediately lead to severe psychotrauma, prolonged engagement in emergency response, particularly during the middle stages of a career, can significantly elevate the risk of developing

more pronounced symptoms. This cumulative impact emphasizes the importance of sustained mental health surveillance and intervention strategies tailored to the evolving career trajectory of emergency personnel (Nagamine *et al.*, 2020).

Correlational Between Variables

The Spearman's rho correlation analysis revealed that age ($\rho = 0.103$, $p = 0.505$) and years of experience ($\rho = 0.159$, $p = 0.301$) were not significantly correlated with

Table 4: Descriptive statistics of the IES-R according to the respondents' years of experience

Years of Experience	Intrusion M(SD)	Avoidance M(SD)	Hyperarousal M(SD)	Total IES-R M(SD)
1-9	7.114 (5.582)	7.429 (5.812)	4.314 (4.028)	18.857 (14.304)
10-19	9.000 (5.503)	10.250 (6.964)	6.125 (5.515)	25.375 (17.113)
20-29	3.000	12.000	3.000	18.000

the total IES-R score. However, all three IES-R subscales showed very strong positive correlations with the total IES-R score: Intrusion ($\rho = 0.915, p < 0.001$), Avoidance ($\rho = 0.925, p < 0.001$), and Hyperarousal ($\rho = 0.890, p < 0.001$). This indicates that these subscales are robust indicators of overall psychotrauma severity, reinforcing the internal consistency and convergent validity of the IES-R instrument in this population. Further, the absence of correlation between demographic factors like age and years of experience with the overall IES-R score, despite variations in mean scores across demographic

groups, suggests the influence of other mediating or moderating variables not captured in this analysis. Future research could explore the role of individual resilience, social support networks, or specific traumatic event characteristics as potential confounders or mediators in the relationship between demographic factors and psychotrauma levels among emergency responders.

Qualitative Findings

Thematic analysis of semi-structured interviews revealed five primary themes characterizing emergency responders’ experiences with psychotrauma:

Table 5: Correlation analysis of the total IES-R score with Age, Experience, and its subscales

Variables	Spearman’s rho	p-value
IES-R Score – Age	0.103	0.505
IES-R Score – Experience	0.159	0.301
IES-R Score – Intrusion	0.915	<0.001
IES-R Score – Avoidance	0.925	<0.001
IES-R Score – Hyperarousal	0.890	<0.001

Theme 1: Desensitization and Adaptation to Trauma. Prolonged exposure led to emotional distancing as a coping mechanism. As one participant explained: “When I was starting, I always thought about the hardships and challenges associated with my job... But eventually, I am getting used to it, even if the emergency call was severe it felt like normal to me.” (Participant 06). This adaptive process, however, risks leading to emotional detachment, which may manifest as reduced capacity for empathy or an increased propensity for emotional dysregulation in non-work contexts. This desensitization, while potentially protective in the immediate aftermath of a traumatic event, can also hinder the processing of trauma, potentially contributing to delay or cumulative stress reaction (Shalabi *et al.*, 2022). Such adaptation changes how psychotrauma manifests but does not in any way deny its existence. Often resulting in the normalization of traumatic events that may hinder help-seeking behaviors. Additionally, for Oliveira *et al.*, (2023), this desensitization makes intervention difficult because of the signs of PTSD was hidden.

Theme 2: Diverse Coping Mechanism. A variety of coping mechanisms were employed, including adaptive measures such as social support and maladaptive techniques including emotional suppression and avoidance actions. Some participants said, “I let out my feelings by sharing, and I feel better when they say they feel the same way I do...” (Participant 11). Avoidant coping meant disguising how you feel: “I’ll play my favourite video games before the feeling of disturbance gets worse.” (Participant 13).

These various methodologies illustrate the significance of comprehensive mental health support that facilitates good coping mechanisms and prevents maladaptive behaviours from becoming entrenched. The effectiveness of these coping strategies in preventing long-term psychotraumatic

sequelae requires additional investigation, particularly considering the documented associations between maladaptive coping and increased vulnerability to mental health disorders among emergency service personnel (Kyron *et al.*, 2020). This demonstrates the significance of training individuals in adaptive coping strategies prior to employment, particularly for new workers, to mitigate the long-term mental health risks associated with catastrophic events (Loef *et al.*, 2021).

Theme 3: Emotional Impact of Trauma: Participants consistently articulated experiences of guilt, fear, and moral harm. These feelings typically manifested as intrusive thoughts and heightened awareness.

“The most powerful case for me was a drowning; the victim was the same age as my child.” Sometimes I wish we had been there sooner and wonder whether we could have saved them”. (Participant 01).

Such anecdotes underscore the significant psychological burden borne by emergency responders, wherein personal identification with victims can intensify trauma and hinder emotional recovery (Denk-Florea *et al.*, 2020).

Theme 4: Work-Life Balance: The intense nature of the work often made it difficult to distinguish where work ended and personal life began, leading to chronic stress.

“I don’t talk to my family very much; I’m more of a reserved person...” When I go home, I don’t converse; I go straight to my room. I don’t want other people to know because I’m too scared of being called crazy”. (Participant 02).

This unwillingness to tell family members about work-related stressors is a common reason people don’t seek informal social assistance, which could make responders feel alone and slow down their mental recovery (Lawn *et al.*, 2020). Moreover, the absence of psychological safety in the workplace environment may compound this isolation, as the emergency responders who perceived

their organization as unsupportive of mental health discussion are less likely to seek formal assistance (De Leon, 2025). This self-imposed isolation can make it harder for emergency workers to talk about and deal with traumatic experiences, which can make their long-term mental health problems worse. This hesitancy shows how important it is to remove the stigma around mental health support in emergency services so that people perceive getting help as a strength instead of a weakness.

Theme 5: Vicarious Trauma: Emergency responders often went through vicarious trauma, which meant they felt the emotional effects of the tragic events they saw.

“Specifically, the thought that stayed was suicide cases; usually, we are being called to pronounce the time of death. The retrieval of the body, the circumstances around death, and acquiring information from the family were a challenge for me”. (Participant 13).

This theme emphasizes the essential requirement for therapies that tackle both direct traumatic exposure and the widespread impact of secondary trauma on emergency personnel (O’Toole *et al.*, 2022). However, these qualitative insights together underscores the intricate psychological challenges faced by emergency responders, wherein both direct and indirect trauma exposures demand comprehensive and diversified support systems (Lawn *et al.*, 2020; Azizi *et al.*, 2021). In contrast, Lawn *et al.* (2020) suggest that the results indicate an urgent necessity for customized interventions that recognize the distinct challenges encountered by particular demographic within the emergency responder workforce, especially mid-career males, to alleviate the enduring psychological effects of their occupation. Nevertheless, this requires the formulation of extensive psychotrauma management programs that tackle both acute and chronic stress, including methods for prompt detection, targeted therapies, and substantial organizational support (Johnston *et al.*, 2025; Lawn *et al.*, 2020).

Integrated Discussion: Quantitative and Qualitative Findings

The quantitative results showed that adaptive coping strategies were significantly associated with lower psychotrauma scores, while avoidant and distraction-based coping were associated with higher stress levels. These statistical patterns are supported by qualitative findings that contextualize the quantitative results by demonstrating how different coping mechanisms influence trauma responses. Distraction techniques such as watching videos may temporarily relieve stress but may contribute to avoidance behaviour, whereas adapting coping strategies was associated with lower psychotrauma scores.

According to the Transactional Model of Stress and Coping (Lazarus & Folkman, 1987), these findings show that people’s psychological outcomes are directly influenced by their cognitive assessment of trauma and the coping strategies they select. While the qualitative themes shed light on the internal appraisal processes and

contextual factors that impact these coping behaviours, the quantitative data validate the connection between psychotrauma and coping. In line with the model’s focus on problem-focused and emotion-focused coping dynamics, they collectively show how adaptive coping serves as a regulatory reaction to stress appraisal.

The findings are also in line with Hobfoll’s Conservation of Resources (COR) Theory (1989), which maintains that stress develops when individuals face the potential or actual loss of critical resources, such as social support, emotional stability, or control. The quantitative results indicate that individuals with adaptive coping experience less psychotrauma, suggesting successful resource conservation and replenishment. Additionally, the qualitative results demonstrate that while avoidance behaviors lead to resource depletion, respondents who employ adaptive coping strategies preserve their psychological resources. Thus, the integrated results suggest that resource protection and recovery underpin the relationship between coping strategies and trauma outcomes.

The Posttraumatic Growth (PTG) Theory (Tedeschi & Calhoun, 1998), which emphasizes positive psychological transformation after trauma, is also consistent with this integration. The quantitative evidence that adaptive coping reduces psychotrauma is consistent with the qualitative narratives, particularly those that highlight learning, emotional adaptation, and improved relationships. According to PTG Theory, these patterns imply that responders may grow through meaning-making and cognitive restructuring in addition to symptom reduction. This highlights the need for all-encompassing mental health programmes that not only treat current psychotrauma but also give responders useful, flexible coping mechanisms to strengthen their resilience. The particular difficulties encountered by male responders should also be taken into account in these programmes, especially the impact of conventional masculine norms on help-seeking behaviours (Agbayani *et al.*, 2018; Jakubowski & Sitko-Dominik, 2021). According to the PTG perspective, questioning these norms can promote growth through emotional openness and cognitive reappraisal, whereas restrictive masculine norms within the COR framework restrict access to helpful resources. This is consistent with the demand for intervention programmes that incorporate psychological resources and self-management techniques for high-stress circumstances in addition to immediate disaster assistance (Martínez-Caballero *et al.*, 2023).

Furthermore, considering the possibility of avoidance in this group, incorporating emotional processing into these interventions may be essential, particularly for male-dominated units (Shorer *et al.*, 2024). In addition to taking into account interpersonal relationships and coping mechanisms as essential elements of successful prevention and intervention strategies, such programmes must recognize the varying degrees of distress, which frequently appear as a temporary layer of symptoms

rather than diagnosable disorders (Rapisarda *et al.*, 2024). Male emergency responders' mental health outcomes could be greatly enhanced by creating culturally sensitive interventions that recognise and question conventional male role norms regarding emotional expression (Jakubowski & Sitko-Dominik, 2021).

A thorough understanding of how emergency responders cope with trauma can be obtained by integrating quantitative and qualitative data through the lenses of the Transactional Model of Stress and Coping, the Conservation of Resources Theory, and the Posttraumatic Growth Theory. Adaptive coping quantitatively lessens psychotrauma; qualitatively, it takes the form of contextual difficulties influenced by gender norms, emotional control, and meaning making. Theoretically, these results support the idea that successful coping preserves resources, modifies evaluation procedures, and fosters development following hardship. A comprehensive, multi-theoretical explanation of how emergency responders move from trauma exposure to resilience and ultimately posttraumatic growth is thus supported by the interaction of these frameworks.

CONCLUSION

This study reveals that emergency responders in Balanga City, Bataan exhibit subclinical psychotrauma levels with significant demographic variations. Male and mid-career responders (40-49 years old) demonstrate elevated intrusion and avoidance symptoms, identifying them as priority intervention groups. Qualitative findings highlight diverse coping strategies, necessitating programs that promote adaptive mechanisms while reducing maladaptive responses like emotional repression. Cultural and gender-specific norms significantly influence emotional expression and help-seeking behaviors. The PAGHILOM program, grounded in Posttraumatic Growth Theory, offers a comprehensive approach transcending symptom reduction to foster long-term resilience and psychological well-being among emergency responders.

Recommendations

- Implement the PAGHILOM program targeting male and mid-career responders showing elevated psychotrauma profiles.
- Institutionalize continuous mental health screening for early risk identification and intervention. Integrate comprehensive training on adaptive coping, stress inoculation, and emotional regulation into professional development.
- Revise policies to mandate regular psychological screenings, post-critical event support, and improved mental health access, aligning with the Philippine Mental Health Act (RA11036).
- Future research should examine action research efficacy, cultural influences on help-seeking, and differences across responder types (voluntary, full-time, retired), while expanding trauma-informed care resources locally.

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