

Optimizing Mental Health Cadres In Disaster Response: Stress Management and Spiritual Emotional Freedom Technique (SEFT) in Agricultural Communities

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Abstract Natural disasters produce both immediate and prolonged psychological consequences, including stress, anxiety, and depression. These effects require comprehensive interventions combining stress management strategies with the Spiritual Emotional Freedom Technique (SEFT). This study aimed to enhance mental health cadres' capacity to support disaster resilience programs in agricultural communities, focusing on Indonesia's disaster-prone Lumajang District. The research implemented a two-phase intervention: First, 30 health cadres received training using a quantitative pre-experimental design with pre-test and post-test evaluations. Second, these trained cadres conducted home visits for 80 community members, with outcomes measured using the PTSD Checklist (PCL-5). Results demonstrated significant improvements across both cadres and community members. Cadres' stress management knowledge increased substantially from an average pre-test score of 50% (poor category) to 76.6% (good category) post-intervention. Most importantly, SEFT implementation reduced PTSD symptoms among community members from 41.25% to 11.25%. The study also revealed high participant engagement, with all 30 cadres completing training and demonstrating strong knowledge retention. These findings confirm that targeted training in SEFT and stress management can effectively enhance mental health cadres' professional capabilities. By strengthening frontline responders' skills, communities gain greater capacity to address post-disaster psychosocial challenges and build long-term resilience. The research highlights the value of integrating evidence-based psychological interventions with community health worker programs, particularly in vulnerable agricultural regions facing recurrent disasters. This cadre-centered approach offers a sustainable model for improving mental health outcomes in disaster-affected populations while supporting broader disaster preparedness initiatives. Where it will also support the achievement of SDG 3.

1. INTRODUCTION

Indonesia is a transcontinental nation straddling the equator between two oceans, making it particularly vulnerable to natural disasters (Rahmawati et al., 2024b). These catastrophic events have devastating global consequences, including loss of life, property damage, and significant mental health impacts on affected populations. Current

mental health and psychosocial support primarily target emergency response and recovery phases, aiming to alleviate suffering and restore community functioning (Gray et al., 2021). The agricultural region of Kutorenon Sukodono in Lumajang exemplifies this vulnerability, where frequent disasters like forest fires, floods, and severe

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storms disproportionately affect communities dependent on stable environmental conditions [Macleod et al. \(2025\)](#).

Extensive research documents the psychological consequences of disasters, including post-traumatic stress disorder (PTSD), depression, anxiety, grief reactions, and sleep disturbances ([Sato & Nozue, 2023](#)). While mental health constitutes a fundamental component of overall wellbeing ([Damaiyanti et al., 2021](#)), it remains a stigmatized subject in Indonesian society ([Izzah et al., 2022](#)). These disorders significantly impact cognitive, behavioral, and emotional functioning, affecting not just physical health but also interpersonal relationships and daily activities ([Melina & Herbawani, 2022](#)). In Kutorenon Sukodono, mental health cadres serve as frontline responders, providing critical psychosocial support to disaster-affected individuals. Implementing stress management techniques and the Spiritual Emotional Freedom Technique (SEFT) has shown potential to mitigate these psychological impacts and enhance community resilience ([Rahmawati et al., 2024a](#)).

Current disaster preparedness efforts face significant challenges, particularly regarding psychological wellbeing and stress management capacity ([Malas & Tolsá, 2024](#)). Community knowledge about disaster preparedness remains inadequate, with most interventions focusing on emergency response rather than prevention or long-term recovery. This knowledge gap directly impacts community attitudes and preparedness levels, especially in high-risk areas like Kutorenon Sukodono. Disasters - whether natural or human-induced - frequently trigger acute psychological responses including excessive anxiety, panic disorders, and hypervigilance ([Rahmawati et al., 2024a](#)). The increasing frequency of these events underscores the urgent need for systemic improvements in disaster preparedness and mental health support systems.

Therefore, optimizing the empowerment of the role of cadres in managing public health is very important to empower the community and create a community with the highest degree of health. This optimization aims to improve the knowledge and skills of cadres, especially in dealing with disasters, as well as strengthening community resilience to the impact of stress. By utilizing the potential of mental health cadres and integrating stress management into the community service approach, sustainable and resilient solutions to the complex challenges in the kutorenon agricultural area can be created. Optimizing the role of mental health cadres is a strategic step towards creating a more resilient community in the face of change and disaster. Based on this description, this research is important to reduce the psychological impact of post-disaster by optimizing the role of mental health cadres through stress management and SEFT therapy ([Rahmawati et al., 2023](#)).

2. METHOD

This study employed a quantitative pre-experimental design to evaluate improvements in stress management knowledge among participants. The research was conducted at

Kutorenon Village Hall in Lumajang Regency, East Java, during July 2024. The intervention consisted of two sequential stages. The first stage implemented a comprehensive training program for 30 mental health cadres using demonstration, mentoring, and instructional methods. Training materials included educational leaflets, cadre manuals, and pre-post test evaluation sheets to measure knowledge acquisition. This phase focused on building foundational competencies in stress management techniques. In the second stage, trained cadres conducted home visits using demonstration methods, reaching 80 participants distributed across four hamlets selected through cluster sampling. The PTSD Checklist for DSM-5 (PCL-5) served as the primary assessment tool during this intervention phase, allowing for standardized evaluation of post-traumatic stress symptoms. The method of implementing SEFT is described in [Figure 1](#). All collected data were analyzed using descriptive statistical methods to quantify intervention outcomes. The study protocol received ethical approval from the University of Jember Research Ethics Committee (Approval No. 243/UN25.1.14/KEPK/2024), ensuring compliance with established research standards and participant protection protocols.

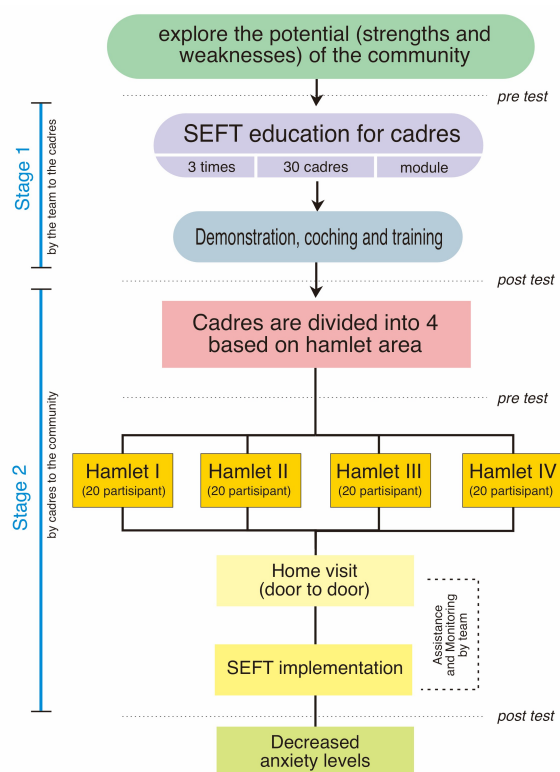


Figure 1 . SEFT implementation method

3. RESULT AND DISCUSSION

3.1 Characteristics of the subjects

Based on the results obtained, the subject characteristics show variations in the aspects of age, education, and level of knowledge listed in [Table 1](#).

Table 1 . Subject characteristics cadres

| Variable | N | %(percentage) |
|--------------------|----|---------------|
| Age | | |
| 26-35 years | 6 | 20% |
| 36-40 years | 11 | 36.67% |
| 41-50 years | 4 | 13.33% |
| 51-60 years | 9 | 30% |
| Education | | |
| Primary School | 1 | 3.33% |
| Junior High School | 7 | 23.33% |
| Senior High School | 17 | 56.67% |
| S1 or D4 | 5 | 16.67% |

The variation observed among participants serves as a crucial factor in optimizing the role of mental health cadres through stress management approaches for disaster response in agricultural communities. Given the diverse educational backgrounds and knowledge levels of subjects, the program required an adaptive design to ensure effective implementation and acceptance by mental health cadres. This tailored approach was particularly important for facilitating proper comprehension and application of training materials among all participants.

Table 1 presents demographic data showing that the majority of cadres (36.67%) fell within the 36-40 age range. This developmental stage of adulthood offers distinct advantages for community health work, as individuals typically demonstrate greater productivity and community engagement capacity. Adult cadres benefit from cognitive maturity and enhanced information processing abilities, which significantly contribute to achieving mental health training objectives (Susmiatin & Sari, 2021). These characteristics make this age group particularly well-suited for implementing disaster response interventions.

Educational backgrounds among cadres varied substantially, ranging from elementary to undergraduate levels, with high school graduates constituting the majority (56.67%). The initially low knowledge scores observed among some participants may relate to these educational disparities, particularly since many community members had never received prior disaster preparedness training (Buston et al., 2021). This historical lack of exposure to disaster education within these communities likely contributed to the baseline knowledge deficits observed at the study's outset.

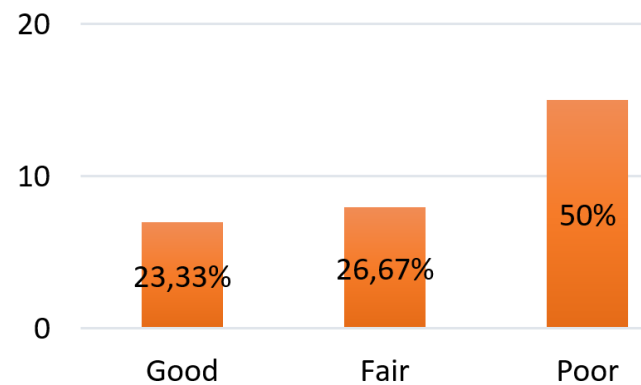
Educational settings present valuable opportunities to cultivate disaster risk reduction cultures by enhancing community capacity to respond to emergencies. Such environments can effectively reduce vulnerability by developing community members into active agents capable of hazard identification and long-term risk mitigation (Carlos et al., 2024). These educational approaches support comprehensive disaster management through preventive risk assessment, mitigation strategies, and the development of effective preparedness and response protocols.

The observed variations in age and educational attainment among participants reflect differing baseline knowledge and skill levels that potentially influence training outcomes. While higher education levels

generally correlate with improved information processing capabilities, non-formal education and life experience also contribute significantly to knowledge and skill development. These factors collectively underscore the importance of tailored training approaches that accommodate diverse participant backgrounds while achieving consistent competency development across all cadres.

3.2 Cadres' knowledge level about PTSD and SEFT before intervention

Figure 2 illustrates the results of pretest conducted on health cadres to determine their initial level of knowledge.

**Figure 2 .** Research pretest results

The pre-test assessment conducted prior to counseling and stress management training revealed significant knowledge gaps among participants. Results showed that only 23.33% (7 people) of cadres demonstrated good knowledge, while 26.67% (8 people) showed adequate understanding and 50% (15 people) displayed poor comprehension of stress management principles. These knowledge disparities can be attributed to multiple factors including variations in personal experience, media exposure, socioeconomic status, environmental influences, social networks, healthcare access, age, educational background, and occupation (Istiani et al., 2021), all of which contribute to differential baseline knowledge levels among mental health workers.

To bridge the gap between theoretical knowledge and practical application, the training incorporated live demonstration components. This hands-on approach ensured cadres could effectively translate conceptual understanding into field practice, thereby enhancing their capacity to deliver education and early interventions to disaster-affected communities. Such practical skill development is essential for optimizing the role of mental health cadres in real-world disaster response situations, particularly in agricultural areas where psychosocial support services are often limited.

Figure 3 shows that the posttest results show an increase in the participants' knowledge, with an average improvement of 76.6% (23 people), 23.4% (7 people), and 0% (0 people).

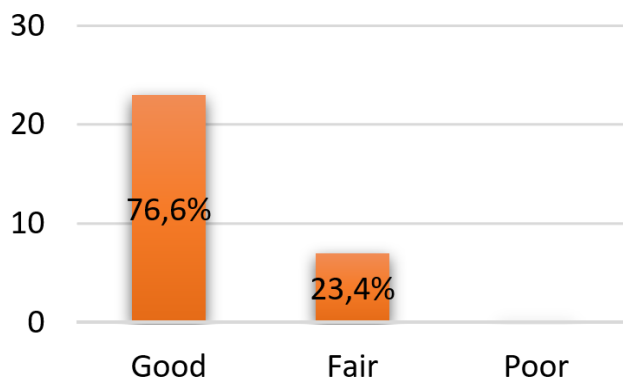


Figure 3 . Research post test results

The post-test results demonstrated significant improvement among village mental health cadres, with an average score of 86.33%. This successful outcome was evidenced by the strong participation and enthusiasm shown by all 30 health cadres during the counseling and stress management training sessions. The high engagement levels reflect the program's effectiveness in building cadre capacity for community mental health support.

As key community figures, health cadres serve as both role models and mobilizers, particularly in disaster preparedness contexts. Their critical functions include providing counseling about potential hazards, disseminating vital safety information, and guiding appropriate response actions during and after disaster situations (Rahmawati et al., 2024a). These roles position cadres as essential frontline responders in vulnerable communities.

Mental health cadres operate across multiple prevention levels. In primary prevention, they conduct data collection, deliver health education, and motivate community members. For secondary prevention, their responsibilities include early detection of mental health issues and sharing critical mental health knowledge (Windarwati et al., 2023). This comprehensive approach enables cadres to address mental health needs at various stages.

The study findings highlight how combining knowledge acquisition with skill development enhances cadres' effectiveness in early detection of community mental health disorders. Importantly, the research underscores that optimal cadre performance requires alignment between their roles and both their knowledge base and professional attitudes during knowledge-sharing and detection activities (Istiani et al., 2021). This balance is essential for maximizing their impact in community mental health initiatives.

3.3 Relationship between knowledge of stress management using spiritual emotional freedom technique (SEFT) and mitigation of post traumatic stress disorder (PTSD) in agricultural areas among the community

The demographic data presented in Table 2 reveals that the majority of community members were aged 26-35 years (31.25%), with smaller representations from older age groups (56-65 years: 3.75%; 65+ years:

2.5%). Notably, older adults demonstrated lower PTSD prevalence compared to younger counterparts, likely due to their greater life experience and enhanced capacity to process traumatic events, which contributes to stronger psychological resilience (Gray et al., 2021). This age-related pattern highlights important variations in trauma response across different life stages.

Table 2 . Subject characteristics PTSD

| Variable | N | %(percentage) |
|------------------|----|---------------|
| Age | | |
| 17-25 years | 18 | 22.5% |
| 26-35 years | 25 | 31.5% |
| 36-45 years | 22 | 27.5% |
| 46-55 years | 10 | 12.5% |
| 56-65 years | 3 | 3.75% |
| Above 65 years | 2 | 2.5% |
| Education | | |
| Not in School | 5 | 6.25% |
| Low Education | 70 | 87.5% |
| Higher Education | 5 | 6.25% |

Educational attainment among community members varied significantly, ranging from no formal schooling to higher education, with the majority (87.5%) having low education levels. Research indicates that education level substantially influences an individual's ability to process health information and respond to threats (Juliana et al., 2023). Those with higher education typically demonstrate better comprehension of health-related information, which can mitigate mental health conditions like anxiety and depression. Conversely, individuals with limited education often focus primarily on resuming normal activities rather than processing their traumatic experiences, potentially affecting their long-term psychological adjustment.

Post-traumatic stress disorder (PTSD) profoundly impacts quality of life, particularly when individuals experience or witness threatening events that trigger intense fear and helplessness (Rahmawati et al., 2024b). Both positive and negative life events can induce significant stress as individuals attempt to adapt to new circumstances (Wakhid et al., 2022). PTSD manifests through persistent traumatic memories and overwhelming fear responses (Rahmawati et al., 2023; Wakhid et al., 2022), though psychosocial support has been shown to effectively reduce such psychological distress (Rahmawati et al., 2022).

This program emphasizes stress management as a primary intervention strategy, particularly relevant for agricultural communities facing unique mental health challenges. Agricultural stressors include stringent regulations, corporate dominance in food systems, and financial instability (Nye et al., 2025), compounded by recurrent natural disasters in vulnerable regions (Chen et al., 2020). These cumulative pressures necessitate targeted interventions to strengthen community mental resilience and coping capacities.

The program's effectiveness is visually represented in Figure 4, which compares pre- and post-intervention stress management levels within the community. These results demonstrate the tangible impact of the implemented

strategies on enhancing psychological wellbeing among participants facing agricultural and disaster-related stressors.

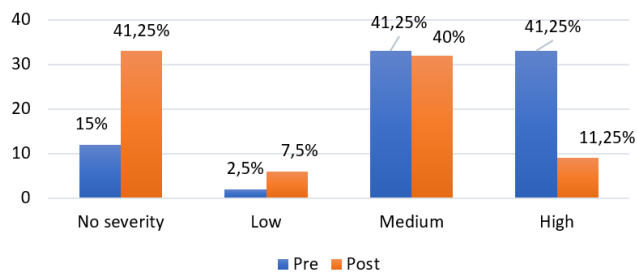


Figure 4 . Research pre and post intervention

The study revealed significant improvements in post-disaster psychological outcomes following intervention. Pre-intervention data showed 41.25% (33 people) of community members exhibited symptoms of post-traumatic stress disorder (PTSD), which decreased to 11.25% after implementation of the Spiritual Emotional Freedom Technique (SEFT). This substantial reduction demonstrates the intervention's effectiveness in addressing trauma-related symptoms. As documented by Rahmawati et al. (2024a), the combined stress management and SEFT approach facilitated meaningful positive changes in quality of life for disaster-affected individuals. These improvements manifested in multiple dimensions: enhanced stress coping capacity, better overall health status, and renewed motivation and acceptance in post-disaster life adaptation. The findings underscore the value of integrating evidence-based psychological interventions with traditional stress management approaches in disaster recovery programs.



Figure 5 . Stress management education and monitoring for the community

Health cadres serve as vital community role models and mobilizers, particularly in disaster preparedness and response. Their crucial functions include providing hazard-related counseling and disseminating essential safety information to ensure community survival during and after disasters (Rahmawati et al., 2024a). The training of mental health cadres in SEFT and stress management

techniques significantly enhances community resilience, enabling them to address post-disaster trauma and prevent severe mental health conditions like PTSD (Hidayah et al., 2024). These trained cadres become instrumental in building psychological resilience within vulnerable agricultural communities. Figure 5 shows the application of the self-display demonstration by the researcher followed by the participants. The participants were able to redemonstrate self-display according to what the researcher had taught them.

The program's evaluation revealed both subjective and objective improvements among participants. Subjective assessments demonstrated enhanced cadre understanding and skills in applying stress management and SEFT techniques for PTSD intervention in agricultural areas. Objectively, knowledge levels showed marked improvement - shifting from 50% scoring in the "poor" category during pretests to 76.6% achieving "good" knowledge in posttests. This progression underscores the training's effectiveness and highlights the need for sustained cadre empowerment. Beyond knowledge acquisition, the program aims to establish dedicated Mental Health Cadres who can optimize stress management approaches within farming communities, ultimately strengthening disaster resilience and improving post-trauma recovery outcomes. The significant knowledge gains confirm the value of ongoing support for addressing mental health challenges in agricultural settings.

4. CONCLUSION

This study demonstrates that Spiritual Emotional Freedom Technique (SEFT) and stress management training effectively enhance the knowledge of village health cadres and community members in managing stress and mitigating PTSD. Prior to the intervention, most cadres exhibited limited understanding, with an average pre-test score of 50% (poor category). Post-intervention results showed significant improvement, with 76.6% achieving good knowledge. Similarly, community anxiety levels decreased from 41.25% to 11.25% following the program. The high engagement from both cadres and community members underscores the intervention's success in building stress management skills. The establishment of Mental Health Cadres in the village is expected to strengthen disaster resilience, improve post-trauma recovery, and enhance preparedness in agricultural settings.

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CONFLICT OF INTERESTS

The authors declare no conflicts of interest. All findings and conclusions were derived objectively from the research data, ensuring transparency and adherence to academic integrity.

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