

INTEGRATING DISASTER RISK REDUCTION WITH PSYCHOLOGICAL FIRST AID: A THEORETICAL EVALUATION

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ABSTRACT

Disasters, whether natural or anthropogenic, inflict significant social, emotional, and psychological upheaval on individuals and organizations alike. Given estimates of heightened frequency and intensity of such disasters, disaster management must transcend physical response to include emotional well-being. Disaster Risk Reduction (DRR) aims to mitigate vulnerabilities and enhance resilience via preventive, preparedness, response, and recovery strategies. In this context, Psychological First Aid (PFA) serves as a crucial early intervention, offering rapid, compassionate, and pragmatic assistance to individuals impacted. Unlike traditional treatment, Psychological First Aid (PFA) can be delivered by trained community members, offering scalable assistance during crises. This study compiles literature from 2000 to 2024, including randomized controlled trials, quasi-experimental studies, and systematic reviews, that examines the effectiveness of Psychological First Aid (PFA) in several crisis situations. Evidence indicates that PFA mitigates acute pain, enhances coping mechanisms and preparedness, and strengthens community resilience; nevertheless, the long-term psychological consequences remain insufficiently evidenced.

Keywords: Disaster Risk Reduction, Resilience, Psychological First Aid, Disaster Management.

INTRODUCTION

Disasters which stem from natural forces or human actions create serious dangers for physical health and mental wellness. Hurricanes, together with earthquakes, wildfires, terrorist attacks and pandemics, all cause mass fear, uncertainty and traumatic responses among people and their communities (Fox et al., 2012; Wang et al., 2021). Such hazards or disasters have the ability to create deep psychological problems and issues that result in emotional traumas and PTSD with severe problems of anxiety, depression, PTSD and chronic discomfort (Dijlts et al., 2024). The successful treatment of disaster-caused long-term damage requires immediate intervention through Psychological First Aid (PFA), which stands as an essential emergency strategy.

PFA stands as an evidence-based component system with modular structures which deliver prompt psychological as well as emotional support for disaster-affected individuals (World Health Organisation, 2011). It emerged during World War II to assist soldiers in handling combat trauma, yet it has now become a universally recommended practice conducted by emergency responders and both medical staff and community volunteers (World Health Organisation, 2011). WHO, together with the International Federation of Red Cross and Red Crescent Societies (IFRC) and the National Child Traumatic Stress Network (NCTSN), collaborate through their disaster response programs that utilise PFA (Wang et al., 2021; World Health Organisation, 2011).

The study aims to provide a subjective evaluation of the of Psychological First Aid literature by exploring its theoretical bases and models. This paper tries to comprehend the gaps in current academic studies and present a systematic discussion on ways to enhance PFA as an intervention and its applicability in real-life scenario. (Wang et al., 2021; Fox et al., 2012; World Health Organisation, 2011). A comprehensive understanding of PFA's strengths and internal drawbacks becomes essential in developing further efficient evidence-based psychological assistance models that leads to resilience and recovery for the affected populations.

THEORETICAL FOUNDATIONS OF PSYCHOLOGICAL FIRST AID

Psychological First Aid (PFA) as a psychological tool explores to develop strategies based of psychological and behavioural theories to navigate its disaster-based applications. The intervention follows established theoretical frameworks both in creating its strategic direction and establishing its Organisational design to match the best standards of trauma care and crisis management. The foundation of PFA implementation stems from Hobfoll's "Five Essential Elements of Immediate and Mid-Term Mass Trauma Interventions", which remains a powerful theoretical model (Hobfoll et al., 2007).

These five essential principles described by Hobfoll (2007) specify what makes psychosocial intervention effective with victims of disasters are as follows: promoting a sense of safety, by ensuring that affected individuals feel

secure and free from further harm; promoting calmness by assisting individuals in managing acute emotional distress and anxiety; promoting a sense of self-efficacy and collective efficacy by encouraging personal empowerment and community resilience; promoting connectedness by facilitating social support networks and connections to aid in recovery; promoting hope by instilling a sense of optimism and motivation for future well-being. The process enables people to restore hope about their future through motivational strategies. The established principles provide PFA practitioners with an organised structure that helps them provide consistent interventions while acclimating to various disaster situations. Participants who apply these evidence-based principles during PFA provide optimal psychological results that reduce distress and create enduring resilience for victims and their affected communities (World Health Organisation, 2011; Hobfoll et al., 2007).

The key elements of PFA share parameters with trauma-informed care that focus on creating safety while building personal resilience and providing supportive assistance without invasion (Hobfoll et al., 2007). The structured psychiatric framework of PFA allows both trained professionals and laypersons to provide psychological support, ensuring accessibility in disaster-affected regions (Deltjens et al., 2014). The primary mission of PFA consists of lowering immediate emotional distress and helping people restore control through helping access support networks, delivering useful help, and developing healthy coping practices (Fox et al., 2012).

PFA features four essential elements which consist of determining urgent requirements, delivering active attention, giving emotional reassurance and relevant support network connections (Wang et al., 2021). These particular elements maintain a structure that allows them to shift according to various cultural settings and situational needs. PFA interventions under the "do no harm" approach ensure both suitability and prevention of re-traumatisation in the provided assistance according to the WHO (World Health Organisation, 2011). Although PFA has gained popularity due to its perceived effectiveness in treating acute psychological needs, Organisations have conducted few research studies to measure its long-term effectiveness (Deltjens et al., 2014).

The scientific basis of PFA application remains under debate even though the approach is extensively used across disaster situations. Researchers propose that PFA is based on fundamental psychological principles, but there is limited evidence to determine whether it qualifies as a standardised, evidence-based intervention (Fox et al., 2012). Systematic reviews have shown that PFA brings temporary psychological stabilisation, yet researchers demand randomised controlled trials to verify long-term outcomes (Deltjens et al., 2014). Multiple Organisations and regions use PFA in ways that vary considerably since PFA training and application methods differ across the board (Wang et al., 2021).

The rising number of global catastrophes and escalating disaster severity demand thorough research-based psychological intervention methods to an unprecedented extent. PFA functions as a vital disaster management intervention during immediate response, yet more scientific research must evaluate its delivery protocol and training methods, and mental health outcomes assessment (Fox et al., 2012; World Health Organisation, 2011). Scientific research should concentrate on enhancing PFA programs to make them more culturally sensitive while enabling easy access for all members of the community and demonstrating concrete effectiveness.

Psychological First Aid (PFA) is a significant method that helps people in distress in times of crisis and traumatic events. It is based on three basic action principles: Look, Listen, and Link (UNICEF, 2022). The first part of the Psychological First Aid is Look. This means that before finding a way to help someone in distress, it becomes imperative to check if there are any existing risks, threats or safety and security concerns. Further developing an understanding and gathering information about the severity of the event, the physical injuries sustained, the immediate medical or first aid needs becomes crucial. The second part is Listen. When you give psychological first aid, you listen actively and with empathy, offer immediate help, and try to solve any urgent problems they may be having. The third part is Link. This is the most important stage while trying to help the affected population. After the connection is made, this step of helping people get in touch with their family or friends, providing the correct social support systems marks a significant way to ensure resilience post disaster.

METHODOLOGY: STUDY SELECTION AND DATA SOURCES

The research incorporates a comprehensive methodology to analyse data from various academic articles and works about PFA. The methodology integrates relevant literature through a systematic approach to extract information about PFA models and its applicability that allows for effective implementation across disaster scenarios. Multiple databases such as PubMed, Google Scholar, SCOPUS, JSTOR and PsycINFO provided the literature selection for this study. Multiple factors acted as selection criteria for the research process.

- Research conducted from 2000 up to 2024 was utilised to study the development of PFA.
- Studies examined PFA implementations during disasters involving natural events, war conflicts and worldwide health emergencies.
- Research conducted empirical examination of PFA training effects on disaster preparedness together with psychological resilience and self-efficacy development.
- Studies were excluded from analysis if the research content appeared in non-English languages, lacked empirical evidence or addressed only mental health interventions that did not specifically mention Psychological First Aid practices.

The research included randomised controlled trials (RCTs) in combination with quasi-experimental studies and systematic reviews with qualitative analysis results. The review performs meta-analyses as a method to synthesise findings from various studies.

RESULTS AND DISCUSSIONS

An expanding corpus of empirical literature examines the implementation, training efficacy, and outcomes of Psychological First Aid (PFA) among disaster-affected populations and responder groups. Fox et al. (2012) and Dieltjens et al. (2014) conducted systematic reviews demonstrating that Psychological First Aid (PFA) is one of the most widely endorsed psychosocial interventions by organizations such as the World Health Organization (WHO), the International Federation of Red Cross and Red Crescent Societies (IFRC), and the U.S. National Child Traumatic Stress Network (NCTSN). Both reviews confirm that PFA has immediate benefits, especially for reducing psychological distress and boosting self-efficacy. This literature also evaluates the lack of longitudinal evidence and studies in PFA's applicability for long-term. Thus, they emphasize on PFA's position as being evidence-informed for population outcomes but might not be evidence-based at full population-efficacy.

Further, the applicability of PFA in diverse settings and contexts is explored through multiple empirical studies and research works. Everly Jr. et al. (2012) and McCabe et al. (2014) examined two-day interactive workshops within faith-based communities employing the NCTSN model, demonstrating significant improvements in participants' understanding of post-traumatic stress disorder (PTSD) and the application of self-care strategies. Schafer et al. (2010) similarly discovered that a one-week WHO-model training for Haitian healthcare workers enhanced participants' perceived confidence in managing distress, underscoring the importance of culturally adapted, experiential learning. In a comparable study, Chandra et al. (2011) found that concise, structured IFRC-based PFA trainings for disaster volunteers improved confidence and preparedness, with 78% reporting enhanced competence in addressing psychological concerns.

Experimental studies offer supplementary validation for these results. Ramirez et al. (2013) conducted a randomized controlled study (RCT) showing that participants trained using the "Listen, Protect, Connect" approach experienced less PTSD symptoms and increased resilience. Cheung (2014) and Kılıç and Şimşek (2019) demonstrated statistically significant improvements in disaster preparedness and self-efficacy among disaster relief volunteers and nursing students, respectively, using WHO-based models. Allen et al. (2010) found that refugee caregivers trained in trauma-informed Psychological First Aid (PFA) demonstrated improved capacity to manage symptoms and traumas.

These studies collectively highlight the enduring short-term advantages of PFA, namely increased confidence, preparation, and perceived competence, across diverse demographics. However, they demonstrate methodological shortcomings, as limited research include long-term follow-up, defined metrics, or incorporation into Disaster Risk Reduction (DRR) frameworks. This indicates that PFA must be consistently incorporated into DRR cycles to ensure the utilization of psychological resilience and evidence-based approaches in disaster response and recovery.

Table 1: Summary of Key Findings

Result Category	Key Findings	Supporting Studies
Short-Term Effectiveness	PFA reduces immediate distress and enhances responder confidence.	Fox et al. (2012), Ramirez et al. (2013), Kılıç & Şimşek (2019)
Training Duration	Short term training for 1-2 days improves efficiency and confidence; extending trainings for long-term, 4 weeks, can help in disaster preparedness.	McCabe et al. (2008), Chandra et al. (2014), Cheung (2014)
Implementation Barriers	Lack of standardisation, limited long-term studies, and resource constraints.	Dieltjens et al. (2014), Shannon et al. (2015)
Long-Term Impact	Few studies track psychological resilience beyond 1 year.	Everly et al. (2012), Chandra et al. (2014), Dieltjens et al. (2014)

CONCLUSIONS

Numerous scholarly studies concur on the essential role of Psychological First Aid (PFA) in stabilizing individuals' mental states during catastrophic events. Its adaptability to diverse cultural contexts suggests a potential for global implementation that enhances the mental resilience of both users and trained personnel, equipping them for emergencies. The method helps people feel better about themselves and regain control over their lives. It also reduces very severe psychological pain after a traumatic event, which is why it is so important during disaster response operations. Major organizations in the world support the use of PFA as a innovative and efficient intervention for disaster risk reduction. Yet, there are important gaps that need to be mended as this model lacks research saying the long-term benefits and utility for disaster preparedness. The utility of PFA is well seen after the immediate crisis situation for addressing the needs of the affected population. However, scientists need to

further explore how its effects mental health recovery in the long-term especially in situations if the training continuity becomes an issue. To fully integrate PFA is a solution that can improve mental health, long-term randomized controlled trials need to be explored with systematic follow up routines to integrate the model across all types of disasters, across cultures. Researchers, policymakers, and mental health practitioners must collaborate to create standardized training protocols, improve implementation practices, and establish robust monitoring systems to elevate Psychological First Aid (PFA) from an evidence-informed framework to an evidence-based gold standard. Research initiatives must prioritize both immediate outcomes and enduring effects of PFA on diverse groups of individuals affected by various disasters. The increasing severity of disasters caused by climate change, political conflicts, and public health crises makes this a crucial time to create a standardized PFA framework that uses evidence-based data and global adaptation principles.

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