Rahmi et al. AJPMH 2024; 2 (1). DOI: 10.62337/ajpmh.v2i1.8

Psychological First Aid and Its Impact on Self-Efficacy: A Scoping Review

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Abstract

Background: Psychological First Aid (PFA) is an early intervention designed to support individuals in coping with traumatic events, such as pandemics and natural disasters. While widely recognized in disaster management, evidence of its effectiveness in enhancing self-efficacy—particularly among healthcare workers and responders in high-stress scenarios—remains limited. This scoping review evaluates the effectiveness of PFA in improving self-efficacy among healthcare workers, nursing students, and disaster responders. **Methods**: Studies included in this review employed experimental or quasi-experimental designs with self-efficacy as the primary outcome. Eligible articles were published in English between 2014 and 2024. A systematic search was conducted in November 2024 across PubMed, ScienceDirect, Wiley, and Google Scholar. **Results**: Five studies met the inclusion criteria, comprising randomized controlled trials and quasi-experimental designs. Findings indicate that PFA significantly enhances self-efficacy, disaster preparedness, communication skills, and professional competence. Simulation-based training—particularly virtual and hybrid formats—emerged as the most effective approach for delivering PFA interventions. **Conclusion**: This review highlights the critical role of PFA in strengthening the resilience of healthcare workers and disaster responders. Further research is recommended to explore the long-term impacts of PFA and to optimize delivery methods for diverse populations and settings.

Keywords: disaster response; psychological first aid; self-efficacy; training

Introduction

In recent years, global crises such as natural disasters, conflicts, and pandemics have highlighted the importance of mental resilience in recovery efforts. Psychological First Aid (PFA), a widely recognized early intervention, addresses acute psychological impacts by stabilizing individuals, reducing initial stress, and fostering adaptability. While PFA is known to mitigate trauma symptoms, its effectiveness in enhancing self-efficacy—an essential component of psychological resilience—remains underexplored.

Self-efficacy, as defined by Bandura (1997), refers to an individual's belief in their ability to perform specific tasks to achieve desired outcomes. It is a critical psychological factor associated with improved coping abilities, better mental health outcomes, and enhanced recovery from adversity. Increased self-efficacy not only mediates stress and conflict in social behavior (Moksnes et al., 2019) but also plays a role in reducing anxiety disorders by promoting adaptive responses to external stressors (Xiang, Gao, & Gao, 2024). Furthermore, higher self-efficacy strengthens interpersonal relationships and fosters support networks, which in turn bolster self-confidence and resilience (Byun & Kim, 2022).

The rising popularity of PFA in diverse crisis contexts underscores the need for a thorough evaluation of its impact on self-efficacy. Existing literature has primarily focused on PFA's role in alleviating stress-related symptoms, such as depression, post-trauma stress, and anxiety. However, limited research has examined its potential to enhance self-efficacy, despite evidence that interventions targeting self-efficacy can accelerate recovery (McCart et al., 2020).

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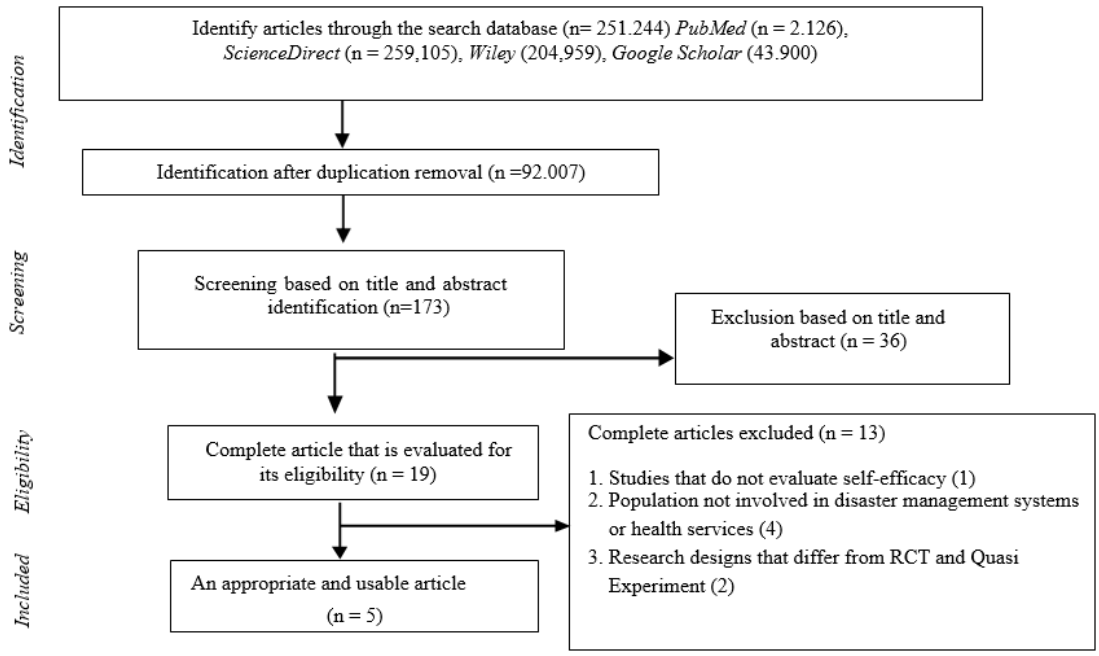
This review aims to systematically map and synthesize the existing literature on PFA and its effectiveness in improving self-efficacy, particularly among healthcare workers and disaster responders. By identifying gaps in current research and exploring the various applications of PFA, this review seeks to provide evidence-based insights to guide future interventions. Ultimately, this review will clarify the role of PFA in enhancing self-efficacy as a cornerstone of psychological resilience (Koda et al., 2023). The findings will contribute to the development of targeted, evidence-based mental health interventions for individuals affected by crises, emphasizing the value of self-efficacy-focused approaches.

Methods

This scoping review aims to investigate the impact of PFA interventions on improving self-efficacy, with a particular focus on healthcare professionals, disaster responders, and nursing students. The quality of the included studies was assessed using the Joanna Briggs Institute (JBI) Guidelines, a comprehensive and systematic framework for evaluating research quality. To conduct the literature search, several major electronic databases were utilized, including PubMed, Wiley, ScienceDirect, and Google Scholar. The search strategy incorporated the following key terms: "Psychological First Aid OR Disaster Response OR Training AND Self-Efficacy". The time frame for the literature search was limited to articles published between 2014 and 2024 to ensure the inclusion of the most relevant and recent studies. The search process involved a thorough review of full-text articles obtained from the databases. These articles were subsequently evaluated to determine their eligibility for inclusion based on predefined criteria. The primary objective of the review was to assess the effectiveness of PFA interventions in improving self-efficacy, comparing participants who received the intervention with those who did not.



Inclusion and Exclusion Criteria

The studies selected for inclusion in this review had to meet specific criteria based on the Population, Concept, and Context (PCC) approach. Healthcare professionals, disaster responders, and nursing students who participated in PFA training or interventions were eligible for inclusion. These studies had to focus on the effects of PFA interventions aimed at improving self-efficacy, and the interventions had to be implemented in disaster or high-stress situations such as public health emergencies or natural disasters. Only studies that used Randomized Controlled Trials (RCTs) or Quasi-Experimental designs were considered for inclusion. The time frame for these studies was limited to publications from 2014 to 2024.

Studies were excluded if they involved participants from the general population, such as company employees or individuals not directly involved in healthcare or disaster response. Research that did not focus on PFA interventions or that evaluated interventions unrelated to self-efficacy were also excluded.

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Furthermore, studies not related to high-stress contexts, such as natural disasters or pandemics, were excluded. Details of inclusion and exclusion criteria is presented in Table. 1.

Table 1. Inclusion and Exclusion Criteria

	Population	Context	Concept
Include	Health professionals (such as nurses, doctors, aid workers), disaster responders, and nursing students involved in PFA training or interventions	Studies involving nurses, nursing students, or disaster response personnel	Study investigating psychological first aid (PFA) for improving self-efficacy
Exclude	Studies involving the general population who are not directly involved in healthcare or disaster response, such as the public or company employees	There is no research related to pandemics, natural disasters, or high-stress situations.	Additional psychotherapy interventions besides PFA for improving self-efficacy

Search Results and Study Selection

The literature search was carried out in November 2024, and a total of 173 articles were initially identified from the four databases. Specifically, 8 articles were sourced from PubMed, 92 articles from Wiley, 14 articles from ScienceDirect, and 6 articles from Google Scholar. These articles were first filtered through their titles and abstracts to identify relevant studies, with irrelevant articles being excluded. The remaining full-text articles were then screened based on the inclusion and exclusion criteria, and their eligibility was further assessed using the PICOT framework. Additionally, each article underwent a quality assessment using the JBI Critical Appraisal Tools, which helped to ensure that only the most methodologically sound studies were included. The research team discussed and resolved any disagreements during the selection process. Following the screening process, **five studies** met all the criteria for inclusion in the literature review.

Data Extraction and Synthesis

Data extraction was conducted independently by two researchers, who used a standardized data collection form to systematically extract relevant information from the selected studies. This process involved recording key details such as study design, population, intervention type, and outcomes. The five included studies are summarized in **Table 2**, which presents information about the study authors, country of origin, year of publication, study design, population, and the specific intervention used.

In total, the five studies selected for this review represented a variety of research designs and populations, all focused on PFA interventions aimed at improving self-efficacy in high-stress contexts. The synthesis of these studies aimed to determine the effectiveness of PFA in enhancing self-efficacy among healthcare professionals and disaster responders, with a particular emphasis on the outcome of improving their preparedness and response capabilities in crisis situations.

Study Quality Assessment

The quality of the selected studies was assessed using the **JBI Critical Appraisal Tools**. These tools evaluate studies based on a set of criteria that include methodological rigor, clarity of objectives, and appropriateness of the research design. Each study was scored based on whether it met specific quality criteria, with a "yes" answer earning one point and a "no" answer earning zero points. To be included in the review, studies needed to achieve a minimum score of **50%**. The quality assessment revealed that all five selected studies met the necessary criteria. This rigorous process was designed to minimize bias and ensure that the studies included in the review were of sufficient quality to draw meaningful conclusions.

Study Selection Process

The selection process followed a systematic approach, using both the PICOT criteria and the JBI Critical Appraisal Tools. Initially, a total of 173 articles were identified from the databases, but through screening

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and quality assessment, only five studies were selected for inclusion. These studies were then analyzed in detail to assess the effects of PFA interventions on self-efficacy among healthcare professionals, nursing students, and disaster responders.

Table 2. Characteristics of Selected Studies

Authors	Country	Year	Study Design	Population	Intervention
Sayed Mohammad Sadegh Madani	Iran	2024	Randomized Controlled Trial	Nurses in Tehran and Isfahan	Psychological First Aid Virtual Training
Nair, R., et al.	India	2023	Randomized Controlled Trial	Nursing staff in COVID-19 units	Psychological First Aid Training
Hye-Won Kim, Yun-Jung Choi	Korea	2022	Quasi-Experiment	Nurses in Seoul	Simulation-based PFA Education
Ju-Yeon Kang, Yun-Jung Choi	Korea	2021	Quasi-Experiment	Aid workers in Seoul and Gyeonggi	Simulation-based PFA Education
Nurhayat Kılıç, Nuray Şimşek	Turkey	2019	Randomized Controlled Trial	Nursing students	Psychological First Aid Training

Results

A comprehensive literature search was conducted across major databases, including PubMed, ScienceDirect, Wiley, and Google Scholar in November 2024. The search yielded a substantial number of articles: 2,126 from PubMed, 259,105 from ScienceDirect, 204,959 from Wiley, and 43,900 from Google Scholar. After removing duplicate entries, 92,007 articles remained. Through the screening process, which involved reviewing titles and abstracts, 173 articles were identified as potentially relevant. Upon further examination of the full texts for eligibility, the number of articles suitable for in-depth review was narrowed down to 19. Ultimately, five articles met the rigorous inclusion criteria for the final selection.

Study Characteristics

The studies that were selected employed various research designs, including Randomized Controlled Trials (RCTs) and quasi-experimental designs, to investigate the impact of PFA on self-efficacy. The primary focus of these studies was to examine the relationship between PFA as an independent variable and self-efficacy as a dependent variable. Measurement tools varied across studies, with multiple validated scales being utilized to assess self-efficacy outcomes. The participants included nursing staff from COVID-19 inpatient units at AIIMS, nursing students in Turkey, school staff in randomized intervention groups, nurses in Tehran and Isfahan, Iran, and aid workers in Seoul and Gyeonggi Province. The diversity in participants reflects the wide-ranging applicability of PFA across different contexts and settings.

Psychological First Aid

PFA is an intervention designed to provide initial psychological support to individuals affected by trauma, particularly in the aftermath of disasters or high-stress events. The goal of PFA is to offer a supportive environment where individuals can feel safe and calm, while also being connected to additional resources for recovery. Kılıç and Şimşek (2019) highlighted that PFA effectively helps individuals recognize normal stress reactions, share emotional experiences, and access further psychological support services. Its key principles include providing clear recovery information, maintaining safety, and offering empathetic listening. PFA training is beneficial not only for healthcare workers but also for volunteers and other professionals, equipping them with culturally sensitive methods of psychological support. Tzeng et al. (2020) emphasized that incorporating PFA into healthcare training programs enables professionals to

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deliver flexible and responsive emotional support, which is crucial for fostering resilience in individuals and communities.

The Effectiveness of PFA on Self-Efficacy Improvement

The selected studies provide strong evidence for the effectiveness of PFA in enhancing self-efficacy. Kılıç and Şimşek (2019) found that nursing students who received PFA training demonstrated a significant improvement in both disaster preparedness and self-efficacy. This positive impact persisted during post-training assessments. Similarly, Jonson et al. (2017) reported that emergency nurses who received PFA training exhibited increased confidence in managing initial disaster response. The findings are consistent with Aliakbari et al. (2022), who showed that brief disaster management training, which included elements of PFA, significantly enhanced participants' decision-making and management skills under stressful conditions. These studies underscore the pivotal role of self-efficacy in psychological interventions, highlighting its importance in empowering individuals to face and overcome challenges

Discussion

The results of the identification of five articles indicate that implementing Psychological First Aid (PFA) enhances self-efficacy perception and disaster preparedness. The quality assessment criteria have been met by five articles, consisting of four articles with Randomized Controlled Trials (RCT) design and two articles with quasi-experimental design. The findings demonstrate that PFA training increases confidence in handling emergency situations at both individual and community levels.

PFA enhances emotional readiness and practical skills. For example, a study found that emergency nurses had a higher level of self-efficacy when managing initial disaster responses (Jonson et al., 2017). Similarly, research by Kılıç and Şimşek (2019) showed that nursing students who underwent PFA training experienced significant improvements in their disaster preparedness perception and self-efficacy, with these effects persisting into the post-training assessment period. Furthermore, integrating PFA training into nursing curricula made students more confident and adaptable when facing disaster situations (Tzeng et al., 2020). Psychological First Aid has been recognized as an effective method to address the psychological impacts of disasters and trauma. PFA has been shown to reduce anxiety and improve mood (Everly et al., 2016), while also building mental resilience and providing psychological support (Shah et al., 2020). Moreover, PFA training enhances the self-efficacy of healthcare workers, enabling them to better manage crisis situations (Yun and Choi, 2022; Zhang et al., 2022). Research also shows that PFA improves self-confidence and helps participants manage stress (Gilbert et al., 2021). Additionally, it helps disaster victims regain hope and strength for recovery (Bisson and Lewis, 2009). The intervention not only reduces symptoms of anxiety and PTSD but also aids recovery in both the short and long term (Hermosilla et al., 2023). With higher self-efficacy, individuals can become more resilient and proactive in the recovery process (Villagonzalo et al., 2018). PFA is particularly beneficial for vulnerable groups, such as refugees, as it enhances their self-efficacy and accelerates recovery (Luttenberger et al., 2024).

Emergency responders also report improved confidence in their abilities after receiving PFA training (Peng et al., 2022). This is crucial to ensuring that they can assist others effectively during crises. PFA benefits children who have experienced trauma, helping them feel more confident in difficult situations (Field, Wehrman, and Yoo, 2017). Similarly, healthcare workers report feeling more capable after PFA training (Pollock et al., 2020). On a community level, PFA has proven successful in equipping disaster volunteers to provide immediate emotional support (Chandra et al., 2014). Training communities in PFA also strengthens their resilience and reduces dependence on external aid during disasters (Tzeng et al., 2020).

PFA's effectiveness stems from combining practical approaches, simulation-based training, and individual feedback. Role-play sessions in PFA training have been found to be more effective than conventional training, as they offer participants hands-on practice and instructor feedback, boosting confidence in disaster management (Wang et al., 2021). PFA training also improves communication skills, such as active listening and empathy, which are critical for providing psychosocial support (Laugen, 2017). Through practical

exercises, participants gain the skills and confidence needed to handle emergencies effectively (Kouvatsou et al., 2022). However, to sustain the benefits of training, post-training supervision and regular retraining are essential. Without these reinforcements, the effects of training can diminish over time (Park and Choi, 2022).

Conclusion

The evidence from the studies reviewed demonstrates that PFA significantly enhances self-efficacy and disaster preparedness across various populations, including healthcare workers, nursing students, and emergency responders. PFA training not only boosts confidence in managing emergency situations but also fosters emotional readiness and practical skills. It proves to be effective in reducing anxiety, improving mood, and promoting resilience, thus supporting long-term recovery in individuals and communities. Additionally, the incorporation of hands-on techniques such as role-play and ongoing post-training supervision is critical for maintaining the benefits of PFA training. The findings emphasize the importance of continuous and comprehensive PFA training to sustain improved self-efficacy and ensure the readiness of individuals and communities to face crises effectively.

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