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Research Article

Psychological First Aid in Neonatal and Pediatric Critical Care: Supporting Medical Teams and Caregivers.

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Abstract

Background: In neonatal and pediatric critical care, psychological first aid supports medical teams dealing with emotional strains and lessens family anguish. In addition to medical care, it encourages resiliency, compassionate care, and holistic healing. This minireview's objective was to illustrate the importance of psychological first aid in neonatal and pediatric critical care, not only for patients but also for caregivers and medical teams.

Methods: We used a variety of research sources, including Google Scholar, Web of Science, PubMed, Springer, Frontiersin, ELSEVIER, and Scopus. Key phrases including psychological first aid, family support, healthcare professionals, and trauma intervention are used in our research. Up until 2025, studies published in English were included in the search. Articles with no full text available, conference abstracts, and publications written in languages other than English were not included. To find further pertinent studies, the reference lists of chosen publications were also examined.

Results: The results of the literature study show that psychological first aid is widely accepted as an adaptable and a practice-based framework with growing empirical support practice for reducing suffering in pediatric and neonatal critical care. Despite difficulties with standardization and evaluation, PFA showed advantages in lowering parental anxiety, assisting healthcare professionals, and building family resilience across several models (WHO, NCTSN, and Johns Hopkins).

Conclusion: In neonatal and pediatric critical care, PFA provides a useful and flexible framework for addressing psychological distress. Despite implementation problems, its integration can benefit medical teams, improve family functioning, and encourage holistic healing.

Keywords: critical care; family support; healthcare workers; trauma intervention; neonatal intensive care unit; psychological first aid

Introduction

In the intensive care unit (ICU), stress is experienced by both healthcare workers (HCWs) and patients and their relatives [1]. High levels of psychological distress have been reported among ICU staff, conscious patients, and family members, as the ICU environment is characterized by multiple stressors, including medical emergencies, invasive procedures, family meetings, and end-of-life situations. Distress is defined as a negative emotional or physical response to a stressor and may manifest as grief, frustration, or physical symptoms such as chest pain or loss of appetite [2]. Because distress can be debilitating, supportive interventions such as active listening, emotional support, and group discussions may be required. However, many HCWs lack formal training in recognizing and addressing distress in patients, families, or colleagues,

as critical care education often does not include structured approaches to distress mitigation [3]. Disasters represent large-scale stressors affecting substantial numbers of individuals; however, they are only one category of stress exposure. Applying principles derived from disaster and catastrophe mental health to the healthcare work environment is therefore essential. Psychological first aid (PFA) is one such evidence-informed approach designed to address acute psychological distress across a range of high-stress contexts [4,5]. In neonatal and pediatric critical care settings, PFA is increasingly recognized as an essential component of holistic care, addressing not only infant survival but also the emotional well-being of caregivers and families [6]. Parents of infants admitted to the NICU are exposed to multiple stressors, including uncertainty, separation, and fear of loss, which may lead to anxiety, depression, and post-traumatic stress symptoms. Studies indicate that more than half of NICU parents experience clinically significant anxiety, with fathers also reporting substantial psychological distress, although this population is less frequently studied [7]. Simultaneously, healthcare professionals face considerable emotional burden, particularly in environments with challenging communication dynamics and limited access to formal psychological support services [8]. Family-centered emotional and psycho-spiritual support interventions have been shown to improve parental coping, reduce psychological suffering, and enhance resilience [9]. Consequently, PFA may serve as a critical link between acute medical management and psychological recovery in NICU and PICU settings, benefiting infants, families, and healthcare teams by promoting compassionate, effective care delivery [10]. The aim of this mini-review is to highlight the role and value of psychological first aid for patients, caregivers, and medical teams in neonatal and pediatric critical care.

Materials and Methods

Study Design

This article was a narrative mini-review based on a structured literature search. It aimed to summarize and synthesize existing evidence on the application of Psychological First Aid in neonatal and pediatric intensive care settings, rather than to conduct a formal systematic review or meta-analysis.

Data Sources and Search Strategy

A structured literature search was conducted to identify studies addressing Psychological First Aid in neonatal and pediatric critical care. The search covered articles published between 2014 and 2025 and was performed using the following databases: PubMed, Scopus, Web of Science, ScienceDirect (Elsevier), SpringerLink, Frontiers, and Google Scholar. Search terms included combinations of keywords such as psychological first aid, neonatal intensive care unit (NICU), pediatric intensive care unit (PICU), PFA models, elements of PFA, and implementation challenges. Reference lists of relevant articles were also manually screened to identify additional eligible studies.

Eligibility Criteria

Only full-text articles published in English and appearing in peer-reviewed journals were considered. Studies were eligible for inclusion if they addressed Psychological First Aid or related psychosocial support interventions in neonatal or pediatric critical care settings, with a focus on patients' families, caregivers, and/or healthcare professionals. Eligible publications included original research articles, systematic or narrative reviews, and meta-analyses discussing PFA principles, models, implementation strategies, or reported outcomes. Articles were excluded if PFA or psychological support in NICU or PICU settings was not mentioned in the title or abstract, or if the content was not relevant to neonatal or pediatric critical care contexts.

Data Extraction and Synthesis

Relevant data were extracted from included studies, including study characteristics, target population, type of PFA model, implementation setting (NICU or PICU), reported psychological outcomes, feasibility and acceptability of interventions, and key findings related to psychological support. Given the heterogeneity of study designs and outcomes, findings were synthesized narratively to identify common themes and patterns across the literature.

Outcomes of Interest

Primary outcomes included indicators of psychological well-being among healthcare professionals and caregivers, such as stress, anxiety, burnout, coping capacity, and resilience. Secondary outcomes encompassed perceived social support, satisfaction with PFA interventions, feasibility and acceptability of implementation, and reported effects on team communication and caregiver engagement.

Results of the Literature Review

The reviewed literature indicates increasing recognition of Psychological First Aid as an effective early psychosocial intervention in neonatal and pediatric intensive care settings. Across studies, PFA was consistently described as a flexible, non-specialist approach aimed at reducing acute distress and supporting adaptive coping among patients' families, caregivers, and HCWs in NICU and PICU environments. Multiple PFA frameworks were identified, most commonly the Psychological First Aid: Field Operations Guide, the WHO Psychological First Aid Guide for Field Workers, and the Johns Hopkins RAPID PFA model. Despite variations in structure, these models shared core principles, including promoting safety and stabilization, calmness, connectedness, self-efficacy, and hope. Model adaptations to suit specific clinical and cultural contexts were frequently reported, particularly in resource-limited settings. Regarding outcomes, the literature suggests that PFA contributes to reduced anxiety and emotional distress, improved coping, and enhanced resilience among parents of critically ill neonates and children. Among healthcare professionals, PFA was associated with improved stress management and perceived emotional support, especially during high-demand situations such as pandemics. Although quantitative evidence remains limited, qualitative findings consistently emphasized the acceptability and practical value of PFA in critical care environments. Implementation patterns showed considerable variability in timing, duration, and delivery format. Most interventions were delivered in person, either individually or in group settings, with early post-stressor application commonly emphasized. Key challenges included limited standardization across PFA models, variability in intervention fidelity, time constraints within intensive care settings, and a lack of robust high-quality outcome studies. Nevertheless, the reviewed literature supports PFA as a feasible and valuable first-line psychosocial support strategy in neonatal and pediatric critical care.

1. Psychological First Aid

National Child Traumatic Stress Network (NCTSN) defines PFA as an evidence-informed intervention "designed to foster short- and long-term

adaptive functioning and coping while reducing initial distress following traumatic events". Individuals exposed to disasters often experience a wide range of early emotional responses, including psychological and spiritual distress, which may interfere with their ability to cope, adapt to changing circumstances, or engage in effective problem-solving. Compassionate and practical PFA interventions aim to support affected individuals in restoring coping capacities and initiating the recovery process [11]. PFA techniques are designed for use by individuals involved in disaster response and are based on the assumption that, with appropriate support, most disaster-affected individuals can adapt effectively to adverse circumstances. The guiding principles of PFA are grounded in disaster research demonstrating a strong association between psychosocial support and psychological recovery [12]. In a seminal publication, Hobfoll and colleagues identified five essential elements of early intervention following mass trauma: safety, calmness, connectedness, self-efficacy, and hope. Despite the absence of a single standardized PFA model or curriculum, more than 25 PFA training programs were developed and adapted in the post-9/11 era for diverse populations, including disaster responders and survivors across different cultural contexts [6]. PFA principles have been tailored to meet the needs of specific groups, such as public health professionals, school-aged children and educators, parents of young children, individuals with special needs, and residents and staff of long-term care facilities. In addition, international organizations, including the World Health Organization, the United Nations Inter-Agency Standing Committee, and the International Red Cross, have developed multilingual PFA programs to support disaster-affected populations, humanitarian workers, and refugees. Although PFA is widely implemented as an early intervention strategy, ongoing evaluation of the effectiveness of different PFA models remains essential [13].

1.1. Perinatal, Newborn and PFA

Perinatal nurses who provide care to pregnant women, newborns, and childbearing families in acute care settings, field hospitals, and community shelters are among the healthcare professionals qualified to deliver PFA as part of disaster response efforts. Integrating PFA principles into routine nursing practice enables nurses to provide emotional support and reassurance to mothers and families during the initial, highly stressful period following a disaster. As healthcare systems gradually return to standard operations, mental health assessments and referrals to social support services become integral components of comprehensive care [6]. Understanding the unique experiences of women in the immediate hours and days following a catastrophic event is essential. All healthcare providers who interact with affected women or their families share responsibility for delivering early psychosocial support during this critical period. The recommended elements of PFA-guided interactions are outlined through the eight core action steps described in the NCTSN Field Operations Guide [11].

1.2. PFA Models

Training assessment studies predominantly relied on three Psychological First Aid models, namely the Psychological First Aid: Field Operations Guide, the Johns Hopkins Guide to Psychological First Aid, and the Psychological First Aid Guide for Field Workers. Hobfoll's five primary PFA goals, i) how to approach and listen, (ii) the needs assessment, (iii) offering informational support, (iv) referral, and (v) self-care are used to compare the approaches in this table. Additionally, contrasted are the settings in which assessments have been conducted and the available resources [14].

1.2.1. Psychological First Aid: Guide for Field Workers

Developed with the support of 24 humanitarian organizations and informed by feedback from 60 international peer reviewers, this approach was created through collaboration between the World Health Organization (WHO), World Vision International, and the War Trauma Foundation. The handbook was intentionally written in clear and accessible language to facilitate adaptation across diverse sociocultural contexts, particularly in low- and middle-income countries (LMICs). The WHO PFA guide was widely disseminated in humanitarian settings, as it was endorsed as a core component of crisis response within the Inter-Agency Standing Committee (IASC) guidelines on Mental Health and Psychosocial Support (MHPSS) [14]. In addition, a facilitator's manual was developed, and the PFA Field Workers' Handbook was translated into more than 20 languages and adapted for specific contexts, including outbreaks such as Ebola Virus Disease. The WHO further collaborated with international organizations and local institutions to provide resources and establish networks that support humanitarian capacity-building initiatives, particularly in LMICs, thereby promoting the global expansion of PFA training programs [15].

1.2.2. Psychological First Aid: Field Operations Guide

The National Center for Posttraumatic Stress Disorder (PTSD) in America and the National Child Traumatic Stress Network worked together to develop this model. To better prepare first responders to handle the mental health effects of responding to disasters and public health emergencies, the American Red Cross, the International Federation of the Red Cross, and the National Center for PTSD have all argued that PFA training should be a priority, required skills-based training [16]. The training methods have been created and made available as open access materials since the publication of the second and most recent edition of the PFA handbook in 2006, along with a number of translations and system-specific modifications. The widespread use of PFA as a disaster intervention tool was facilitated, in part, by the provision of operation instructions for relevant groups (such as medical reserve corps volunteers, nursing home workers, and the homeless) [17].

1.2.3. The Johns Hopkins Guide to Psychological First Aid

Jeffrey Lating and George Everly created this model. The guidebook was created in partnership with the United States Centers for Disease Control and Johns Hopkins University, which provided organizational support based on their combined field experience. A major program with 14 preparedness and emergency response learning centers was developed to equip the public health personnel with PFA competencies in order to increase surge capacity in one of the most disaster-prone areas of the country. Expert consensus further improved the current model [14]. Unlike the other two approaches, the Johns Hopkins Guide model, also called the RAPID PFA model, claims to be theory-driven, empirically proven, and evidence-based. In a randomized controlled study, a therapy intervention was assessed using the Johns Hopkins Guide to PFA [18].

1.2.4. Mixed Models

Additionally, a combination of the components of the three well-known models mentioned above was found. These customized PFA training sessions were designed for school counselors and college students.

Among them was the instantaneous cognitive-functional PFA (ICF-PFA), commonly referred to as the SIX Cs model. Commitment, challenge, control, continuity and cognitive communication were their six fundamental components [19].

2. Elements of PFA

2.1. Being there

PFA [20] begins with the "ministry of presence," emphasizing the importance of being present, supportive, and empathetic. In ICU settings, this means spending meaningful time with patients, families, and colleagues, offering comfort, attending to urgent needs, and observing stressful events first hand. Being physically present allows caregivers to provide ongoing support that goes beyond brief or point-in-time interventions [21–24].

2.2. Safety and stabilization

Ensuring safety and stability involves removing individuals from physical danger and addressing potentially disruptive behaviors. In the ICU, this may include de-escalating conflicts, providing privacy for emotional regulation, and seeking security or medical assistance when needed. Promoting safety early helps prevent escalation into harm to self or others [25–27].

2.3. Skilled listening

Skilled listening is a core component of PFA [20]. Healthcare providers attentively hear patients, families, and colleagues, allowing them to express distress without forcing discussion of upsetting details. Listening carefully can also yield clinically relevant information regarding prior injuries, medication use, mental health, or exposure to stressors [28–30].

2.4. Education and reassurance

PFA helps individuals understand the situation and their emotional responses [31]. The type of education and reassurance provided depends on individual characteristics and the nature of the stressor. Normalizing and validating emotional reactions can be particularly reassuring for individuals without underlying mental illness [32, 33]. In critical care environments, healthcare professionals may apply these principles to support stressed colleagues or comfort grieving families [34]. This includes normalizing and validating feelings, providing guidance on coping strategies, addressing stigma, and offering psychoeducation to reduce anxiety and depressive symptoms. In ICU settings, education and reassurance support both patients' families and stressed healthcare staff [35–40].

2.5. Coping and stress management

Psychological first aid promotes emotional expression, self-care, and adaptive coping. Interventions encourage use of social support, personal strategies such as self-talk and humor, and maintaining balance in daily routines. Stress management helps restore control and facilitates recovery during routine ICU operations or major crises [41–44].

2.6. Problem solving

Practical problem-solving support can enhance resilience in patients, families, and HCWs. Strategies include prioritizing tasks, creating lists, weighing options, breaking problems into manageable steps, and assisting in complex medical or personal decisions. Effective guidance may help individuals learn new coping strategies and strengthen adaptive behaviors [15,27].

2.7. Connect with support

Support from family, peers, and professional services accelerates recovery and reduces vulnerability to psychological distress. Encouraging connections with informal and formal networks helps individuals navigate stress and facilitates coping with challenging medical or emotional situations [45–48].

2.8. Acute symptom management

Early hyperarousal may manifest as anxiety, restlessness, insomnia, or difficulty concentrating. PFA supports symptom management through distraction techniques, relaxation exercises, structured activities, and, if needed, short-term pharmacological interventions. Such strategies benefit ICU patients, families, and staff [27,49].

2.9. Know when more help is needed

Some individuals may require additional support, especially those with persistent distress, pre-existing mental health conditions, or high-risk behaviors. Recognizing warning signs and referring to mental health professionals ensures timely evaluation and appropriate intervention [40, 50]. Institutions may identify high-risk individuals through structured psychiatric screening and involvement of mental health specialists during crises. ICU physicians providing PFA should be familiar with available mental health services to facilitate timely referral. Leadership support is essential in ensuring staff awareness of accessible resources [51-53].

2.10. Caring for the caregivers

Caregivers themselves may experience significant psychological distress in high-stress situations. Factors include prolonged exposure to stress, risk of injury, concern for loved ones, loss of resources, demanding work conditions, fatigue, separation from support systems, and moral dilemmas. Recognizing these risks is essential to provide adequate support to healthcare teams and families [27].

3. The Effectiveness of psychological first aid as a therapeutic intervention after trauma

According to Gradus and Galea, a traumatic event is defined as any experience that an individual undergoes, witnesses, or is confronted with that involves actual or threatened death, serious injury, or a violation of one's own or others' physical integrity [54]. Exposure to highly stressful events, including violent crime, severe illness, and natural disasters, is relatively common. Among the potential psychological consequences of such exposures, post-traumatic stress disorder (PTSD) is the most frequently reported psychopathological outcome, with lifetime prevalence estimates ranging from 1.3% to 22.8% [55]. Although numerous models and frameworks of psychological first aid (PFA) have been developed, PFA continues to be widely implemented to reduce the adverse psychological effects of disasters and severe traumatic events, despite limited high-quality empirical evidence supporting its effectiveness [56]. The promotion of PFA as a primary early intervention following mass trauma has been strongly supported through international collaboration among governments and global organizations [31]. Notably, the Inter-Agency Standing Committee (IASC) guidelines on Mental Health and Psychosocial Support (MHPSS) in humanitarian settings explicitly endorse the use of PFA [57]. Furthermore, specific PFA

implementation guidelines have been developed to support mental health responses during public health emergencies, including the COVID-19 pandemic and Ebola outbreaks. PFA is widely valued for several well-recognized strengths, particularly its flexibility, ease of implementation, and suitability for use by frontline non-specialist caregivers without formal mental health training [56]. Its core advantage lies in providing an immediate, supportive response without pathologizing individuals who have experienced diverse traumatic events. Accordingly, PFA has been applied across a range of contexts, including support for victims of criminal violence, individuals experiencing homelessness, and patients with physical injuries [58–60]. Despite ongoing efforts to develop more structured preventive interventions, PFA remains widely regarded as the essential first step in psychosocial support following traumatic exposure [43].

4. Practical Applications of PFA in NICU/PICU Settings

To enhance the clinical utility of PFA in neonatal and pediatric critical care, concrete strategies can help translate theory into daily practice. Parents of extremely preterm infants often experience emotional disruption, uncertainty, and loss of parental role, necessitating structured psychosocial support from NICU staff. Interventions such as empathic communication, early informational updates, and trust-building interactions between healthcare providers and parents can reduce parental stress and support coping processes throughout hospitalization. Further, incorporating parental peer support program empowers current parents and facilitates coping by normalizing emotional responses and enhancing engagement in infant care [61, 62]. In addition to parent focused strategies, trauma informed care principles tailored for NICU settings emphasize proactive communication, safety, and empowerment. Techniques such as explaining procedures clearly before they occur, involving parents as active partners in care, and respecting parental expertise about their infant help alleviate uncertainty and build parental confidence. These approaches align with trauma informed frameworks that foster connectedness and perceived safety, which are essential components of PFA when applied in high stress care environments such as the NICU [63]. In PICU contexts, psychosocial interventions aimed at mitigating adverse psychological outcomes for children and their families highlight the importance of information provision, psychoeducation, and empowerment programs. Scoping review evidence indicates that structured interventions, including family engagement models and tailored coping support, can reduce parental stress, improve emotional coping, and increase family participation in care during and after PICU admission. Routine integration of such psychosocial strategies within clinical workflows allows PICU teams to address both acute distress and longer-term psychological needs of families, making PFA principles actionable in everyday [64].

5. NICU Mental Health Professional Recommendations

Mental health professionals (MHPs) embedded within the NICU team are encouraged to provide systematic screening for psychological distress, guidance on recognizing moral distress among staff, and support for communication strategies with families. They should also facilitate referral pathways for parents requiring specialized psychological care beyond the routine NICU support. These roles complement broader psychosocial strategies and ensure that parents with complex or persistent needs are identified early and receive timely interventions [65]. Mental health professionals are advised to focus on structured peer support programs, connecting new parents with trained families who can provide guidance and emotional support. This targeted intervention aims to normalize emotional responses, enhance parental coping, and provide specialized assistance when routine support from staff is insufficient. These recommendations reinforce existing NICU psychosocial practices by filling gaps for parents with higher psychological needs, without overlapping with general trauma-informed strategies or day-to-day practical interventions [65].

6. Implementation Challenges of PFA Intervention

Wang et al [56]. report that the majority of PFA interventions currently being evaluated for trauma settings are delivered in-person, either individually or in group formats. Qualitative studies indicate that PFA is perceived as a practical, time-sensitive, and effective approach. In particular, recipients in collectivist cultures often prefer peer providers and group-based arrangements, highlighting the importance of reducing stigma and encouraging help-seeking behaviors. Despite the popularity of PFA due to its adaptability, rapid deployment, and simplicity, providers have raised significant implementation challenges [56]. The timing and duration of PFA interventions vary widely, ranging from delivery immediately following trauma exposure to ongoing support for up to two years. Sessions may consist of a single encounter or multiple sessions spanning two weeks to ten months. Although formal guidelines provide limited recommendations, there is broad consensus that early intervention should occur within the initial hours, days, or weeks after trauma exposure [66].

Shorter PFA interventions delivered soon after trauma exposure fulfill the core principle of immediate crisis support. PFA was originally developed as a brief crisis intervention prioritizing rapid access to assistance during the acute post-trauma phase. It can be delivered as a stand-alone intervention for urgent support, as part of a stepped-care model, or within broader prevention and treatment programs. For instance, during the COVID-19 pandemic, PFA was typically employed as an initial step to facilitate phased mental health care rather than as a stand-alone treatment [59, 67]. However, a lack of transparency in PFA protocol documentation particularly regarding adaptation and intervention fidelity complicates differentiation among PFA types. In practice, PFA must be sufficiently flexible to be tailored to individual needs while maintaining the integrity of different approaches. Adaptations are an inherent aspect of PFA implementation due to its versatility, although certain PFA variants with associated manuals may implicitly incorporate these adjustments [14].

Conclusion

Critical care units including the intensive care unit, NICU, and PICU use Psychological First Aid (PFA), a versatile, practice-based framework with growing empirical support intervention for the psychological and emotional effects of high stressors. PFA provides a structured yet flexible framework for assisting patients, families, and healthcare providers by fostering safety, stability, competent listening, reassurance, coping, and connection with support. Its main advantages are its simplicity, scalability, and adaptability to a variety of situations, from major natural disasters to routine healthcare demands. Ongoing research and development in neonatal and pediatric critical care, where families and caregivers bear heavy emotional loads, ensures consistent efficacy and integration into healthcare systems. In the end, incorporating PFA into critical care procedures can improve resilience, lessen suffering, and

promote a thorough, compassionate recovery for everyone impacted by medical emergencies.

Limitations of the study

Some modern publications, references, and manuscripts were difficult to access due to paywalls, and certain studies were incomplete or lacked sufficient detail, limiting their reliability. Additionally, some relevant studies were published in predatory or low-quality journals. As this is a narrative mini-review, the included articles were selectively chosen based on relevance, and the review does not aim to provide a comprehensive systematic synthesis of all existing literature.

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