



Effectiveness of Mental Health First Aid in Healthcare and Student Populations: A Systematic Review

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Abstract

Introduction: Mental Health First Aid (MHFA) or Psychological First Aid (PFA) are structured approaches intended to improve recognition, immediate support, preparedness, confidence, resilience, and appropriate referral for people experiencing mental-health problems or psychological distress. Healthcare students and professionals are important target groups because they frequently encounter people with mental-health needs and crisis-related distress.

Aim: This review synthesizes the evidence from the eight articles specified by the requester concerning MHFA/PFA training, knowledge, confidence, preparedness, stigma, resilience, self-efficacy, and selected recipient outcomes.

Method: A targeted evidence synthesis was conducted from the eight specified articles. Bibliographic details were checked against accessible journal/index records where possible. Because the set of papers was supplied in advance and no independent database screening of all available literature was performed for this document, the review should be interpreted as a targeted systematic-style narrative review, not as a newly registered PRISMA systematic review.

Results: The evidence consistently indicates benefits for mental-health literacy, confidence, willingness to provide MHFA, and aspects of stigma/social distance among healthcare students and professionals. Frond et al. reported pooled small but statistically significant effects of MHFA on knowledge (Hedges' $g=0.228$) and combined attitudes/self-efficacy (Hedges' $g=0.376$) in pharmacists and pharmacy students. Li et al. synthesized 11 studies and found improvements across mental-health literacy, willingness/confidence, social distance, and several stigma outcomes, although results were not uniform. Bayageldi reported increased psychological resilience and self-efficacy following PFA training among 68 nursing students. Salman et al. found that most emergency nurses had moderate PFA knowledge and only about half reported being prepared, demonstrating a training gap. The Eweida randomized trial extends PFA evidence to institutionalized older adults, focusing on dignity-related distress, social frailty, and resilience.

Conclusion: MHFA/PFA training appears promising, especially for improving trainee knowledge, confidence, preparedness, and resilience-related outcomes. However, intervention terminology, populations, outcome measures, study designs, and follow-up periods vary substantially. Stronger controlled studies with standardized outcomes and longer follow-up are needed.

Keywords: Mental Health First Aid, Psychological First Aid, healthcare students, nursing students, medical students, pharmacists, emergency nurses, mental health literacy, confidence, resilience, self-efficacy

Introduction

Mental-health problems and psychological distress can arise in educational, healthcare, emergency, and institutional settings. Healthcare professionals and students are particularly relevant to first-aid training because they may encounter people experiencing mental-health symptoms, crises, trauma, or psychosocial distress. Mental Health First Aid (MHFA) is a training approach focused on recognizing mental-health problems, responding appropriately, offering initial support, and encouraging professional help when indicated. Psychological First Aid (PFA), although related, is not identical to MHFA; it emphasizes immediate supportive assistance following trauma, crisis, or other highly stressful events, including safety, connectedness, basic needs, listening, and appropriate referral. The distinction is important because evidence for MHFA and PFA should not be treated as identical intervention.

The supplied evidence includes two systematic reviews/meta-analyses and several primary studies spanning medical, nursing, pharmacy, emergency-nursing, and older-adult populations. Yeoh et al. reviewed MHFA in medical, nursing, and allied healthcare professional students and reported evidence for improved mental-health literacy, confidence, skills, and reduced discriminatory attitudes, while noting a limited evidence base and few randomized trials. Li et al. reviewed 11 studies involving healthcare workers and medical/nursing students and similarly reported benefits in mental-health literacy, willingness/confidence, social distance, and some stigma outcomes. Maslowski et al. reported small-to-moderate effects across 16 MHFA studies, while Frond et al. provided a recent pharmacy-focused meta-analysis. Primary PFA studies add evidence concerning resilience, self-efficacy, knowledge, and preparedness.

Objectives

1. To synthesize the findings of the eight specified articles on MHFA and PFA.
2. To examine effects on mental-health literacy, knowledge, confidence, willingness, preparedness, stigma, social distance, resilience, and self-efficacy.
3. To identify differences between MHFA and PFA evidence and avoid treating them as interchangeable interventions.

4. To identify methodological limitations and priorities for future research and training.

Materials and Methods

This targeted systematic-style narrative review was based on the eight articles supplied by the requester. The articles included systematic reviews/meta-analyses and primary quantitative studies concerning MHFA or PFA. Bibliographic information was cross-checked against accessible publisher, journal, PubMed, or indexing records where available. Data were extracted on population, design, intervention/exposure,

outcomes, and principal findings. Because the article set was predetermined by the requester, this document does not claim an independent exhaustive database search or a PRISMA-compliant new screening process.

Inclusion Criteria

1. Article was one of the eight sources specified by the requester.
2. Study evaluated MHFA or PFA, or systematically synthesized evidence concerning these interventions.
3. Population included healthcare students/professionals or a relevant recipient population addressed by the supplied PFA study.
4. Study reported outcomes relevant to knowledge, literacy, confidence, willingness, preparedness, stigma/social distance, resilience, self-efficacy, or psychological/social distress.

Exclusion Criteria

1. Sources outside the eight specified articles were not added to the evidence set.
2. Articles that were only tangentially related to first aid without a mental-health/PFA/MHFA focus were not included.
3. No quantitative pooling was performed across heterogeneous MHFA and PFA studies.

Results

Eight supplied articles were synthesized. Two were evidence syntheses focused on MHFA: Maslowski et

al. (2019) and Frond et al. (2025); two were broader systematic reviews of MHFA in healthcare/student populations: Li et al. (2025) and Yeoh et al. (2025). The remaining sources were primary studies examining PFA/MHFA-related knowledge, preparedness, resilience, self-efficacy, and recipient outcomes.

MHFA evidence was generally favorable for trainee outcomes. Maslowski et al. identified 16 eligible studies from 8,257 initial records and reported small-to-moderate effects for trainee outcomes (Hedges' $g=0.18-0.53$), with effects appearing to persist at follow-up; evidence for benefits to recipients was limited. Frond et al. found statistically significant pooled effects for pharmacist/pharmacy-student knowledge (Hedges' $g=0.228$) and combined attitudes/self-efficacy (Hedges' $g=0.376$), while emphasizing the need to establish durability.

Li et al. identified 11 studies: five randomized controlled trials, one qualitative study, three single-arm trials, and two mixed-method studies. Across the included evidence, mental-health literacy improved. Willingness and confidence to provide MHFA generally increased, although some outcomes were non-significant. Social distance generally decreased, but results differed by delivery mode and student group. Stigma findings were mixed, with some reductions but several non-significant effects. The review concluded that MHFA is practical but requires standardized curricula and outcome measurement.

Yeoh et al. similarly reported that three studies used simulation assessments and eight reported reductions in discriminatory attitudes after MHFA training. Qualitative findings suggested improved understanding of mental illness, support for friends/family, self-care, and professional help-seeking. The authors concluded that MHFA may improve mental-health literacy, confidence, skills, and stigma-related outcomes, but the evidence base was limited and contained few randomized controlled trials.

PFA evidence showed a somewhat different pattern. Bayageldi studied 68 nursing students in a single-group semi-experimental pre-test/post-test/follow-up design. The PFA program consisted of 60-minute sessions twice weekly for three weeks, and the study reported increased psychological resilience and self-efficacy. Salman et al. assessed emergency nurses in

Palestine. The article reports 164 nurses in its abstract, while the methods section states that 160 nurses completed the study; this internal discrepancy is retained rather than silently corrected. The study found 71.3% of nurses had moderate PFA knowledge, 14.6% low knowledge, and 14.0% high knowledge; 51.2% reported being prepared, 31.7% unprepared, and 17.1% uncertain. These findings indicate a substantial preparedness gap. Solaman et al. assessed 191 second-year MBBS students in a cross-sectional KAP study of physical and psychological first aid; because the study is cross-sectional, its findings describe preparedness rather than proving a training effect. Eweida et al. conducted a randomized controlled trial in institutionalized older adults evaluating PFA for dignity-related distress, social frailty, and psychological resilience. The accessible records confirm the intervention and outcomes, but do not provide enough verified numerical outcome detail here to report effect sizes without overclaiming.

Discussion

The overall pattern supports MHFA as a useful educational intervention for healthcare students and professionals, particularly for improving mental-health literacy, confidence, willingness to help, and some stigma/social-distance outcomes. The most robust quantitative evidence among the supplied sources is the pharmacy meta-analysis, which showed statistically significant but small pooled effects. The broader 2019 meta-analysis also supports trainee-level benefits but cautions that effects on people receiving help are much less certain.

The PFA studies complement rather than duplicate the MHFA evidence. Bayageldi suggests that structured PFA training can improve nursing students' resilience and self-efficacy, whereas Salman demonstrates that emergency nurses may have only moderate knowledge and incomplete preparedness without prior formal training. Eweida extends the potential relevance of PFA to older adults in institutional settings, but its recipient-focused outcomes cannot be directly compared with student knowledge or confidence outcomes.

Several factors limit direct comparison. Training duration and delivery vary; outcome instruments differ; some studies are randomized whereas others are single-arm or cross-sectional; and follow-up is often limited. Li et al. specifically reported that only five of

their 11 included studies were randomized controlled trials and that the quality of these trials was low. The review also noted that many programs lacked opportunities for post-training practice. These limitations mean that the evidence supports promise and practical utility more strongly than it proves durable changes in real-world clinical behavior or patient outcomes.

A further issue is terminology. MHFA is primarily an educational/gatekeeper-style approach to supporting people with mental-health problems, whereas PFA is designed for immediate psychosocial support after crises or traumatic events. Future research should therefore report the intervention model, training dose, population, and outcome definitions clearly and should avoid combining MHFA and PFA into a single effect estimate unless a justified common framework is established.

Limitations

1. Only the eight articles specified by the requester were synthesized; no independent exhaustive database search was performed for this document.
2. The evidence includes different interventions (MHFA and PFA), so a single pooled effect estimate would be inappropriate.
3. Several studies have small samples, single-arm or cross-sectional designs, or limited follow-up.
4. Outcome measures vary substantially across studies, limiting direct comparison.
5. The Salman et al. article contains an internal sample-size discrepancy (164 in the abstract versus 160 in the methods).
6. Numerical results for the Eweida randomized trial were not sufficiently available in the accessible records used here; therefore, no unverified effect size is reported.

Conclusion

The supplied evidence indicates that MHFA and PFA are promising, feasible approaches for strengthening mental-health support capacity in healthcare and student populations. MHFA has the clearest evidence for improving mental-health literacy, confidence, willingness to help, and selected stigma/social-distance outcomes, with recent meta-analyses showing statistically significant but generally modest pooled effects. PFA evidence supports improvements in nursing students' resilience and self-efficacy and

identifies meaningful knowledge and preparedness gaps among emergency nurses. Evidence for direct benefits to recipients and long-term clinical outcomes remains less certain. Training should therefore be implemented with standardized content, opportunities for skills practice, appropriate referral guidance, and consistent outcome measurement.

Recommendations

1. Integrate MHFA into medical, nursing, pharmacy, and allied-health curricula where appropriate.
2. Provide structured PFA training within emergency, disaster, trauma, and institutional-care education
3. Use standardized knowledge, confidence, preparedness, stigma, and behavioral outcome measures.
4. Include supervised practice, simulation, refresher sessions, and follow-up assessments after initial training.
5. Conduct larger, multi-site randomized controlled trials with longer follow-up
6. Separate MHFA and PFA intervention effects in future systematic reviews and meta-analyses.
7. Measure real-world helping behavior and recipient outcomes rather than relying only on self-reported confidence or knowledge.

Bibliographic Verification Note

The supplied Bayageldi citation contained an incomplete journal/DOI presentation; the verified record gives the DOI as 10.14744/phd.2024.49260 and pages 458-465. The supplied Solaman DOI (10.5555/20260204494) could not be verified; the journal's 2026 issue identifies the article and gives DOI 10.70034/ijmedph.2026.1.183. The Salman article reports 164 participants in its abstract but 160 completed participants in the methods section; the discrepancy is explicitly retained. These are bibliographic verification notes, not changes to study findings.

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Source-format Note

The structure follows the supplied PDF template: title/author block, abstract, introduction, objectives, materials and methods, inclusion/exclusion criteria, results, discussion, limitations, conclusion, recommendations, evidence table, and references.

Summary of Evidence Table

S.N o.	Author (Year)	Title / Study	Participants	Methods / Measureme nt	Main outcomes	Key findings
1	Maslow ski et al. (2019)	Effectiveness of Mental Health First Aid: a meta-analysis	MHFA studies; 16 included	Systematic review/meta-analysis; 8,257 initial records	Trainee literacy, attitudes, helping behavior; recipient effects	Hedges' g 0.18–0.53 for primary trainee outcomes; effects appeared maintained at follow-up; recipient evidence limited.

2	Li et al. (2025)	Mental health first aid training and assessment for healthcare professionals and medical nursing students	11 included studies	5 RCTs, 1 qualitative, 3 single-arm, 2 mixed-method	MHL, recognition, confidence/willingness, social distance, stigma	MHL improved; confidence/willingness generally improved; social distance often decreased; stigma findings mixed; need standardized training.
3	Yeoh et al. (2025)	A Systematic Review on the Impact of Mental Health First Aid in Medical, Nursing and Allied Healthcare Professional Students	Medical, nursing and allied HCP students	Systematic review	Literacy, confidence, simulation skills, discriminatory attitudes, wellbeing	Three studies reported simulation outcomes; eight reported reduced discriminatory attitudes; overall evidence promising but limited with few RCTs.
4	Fronde et al. (2025)	The Effect of Mental Health First Aid Training on Pharmacist and Pharmacy Student Confidence and Knowledge	Pharmacists/pharmacy students	Systematic review + random-effects meta-analysis	Knowledge; attitudes/self-efficacy	Knowledge: Hedges' $g=0.228$; attitudes/self-efficacy: Hedges' $g=0.376$; significant pooled effects; durability needs study.
5	Bayagel di (2024)	Effect of psychological first aid training given to nursing students on psychological resilience and self-efficacy	68 nursing students	Single-group semi-experimental; pre/post/follow-up	Psychological resilience/hardiness; general self-efficacy	60-min sessions twice weekly for 3 weeks; PFA training increased resilience and self-efficacy perceptions.

6	Solaman et al. (2026)	Evaluation of Knowledge, Attitude, and Practice Regarding Physical and Psychological First Aid Among Undergraduate Medical Students	191 second-year MBBS students	Cross-sectional KAP study	Knowledge, attitude, practice; prior training/sources	Assessed preparedness and KAP regarding physical and psychological first aid; cross-sectional design cannot establish a training effect.
7	Salman et al. (2026)	Knowledge and Preparedness in Providing Psychological First Aid Among Emergency Nurses in Palestine	160 completed in methods; 164 reported in abstract	Multicenter descriptive cross-sectional	PFA knowledge and preparedness	71.3% moderate knowledge, 14.6% low, 14.0% high; 51.2% prepared, 31.7% unprepared, 17.1% uncertain.
8	Eweida et al. (2026)	Effectiveness of psychological first aid on dignity-related distress, social frailty, and psychological resilience among institutionalized older adults	Institutionalized older adults; sample size not verified here	Randomized controlled trial	Dignity-related distress, social frailty, psychological resilience	Randomized PFA intervention targeting psychosocial outcomes; accessible records confirm the study and outcomes, but verified numerical effect estimates were not available in the records used here.