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Systematic Review

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The Impact of Psychological First aid Training on the Providers: A Systematic Review

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Abstract

Objective: The consensus is that psychological first aid is a practical, early psychosocial intervention to mitigate the distress caused by disasters. This review aimed to investigate PFA training's efficacy in the existing studies and evaluate these programs' impact on trainees.
Methods: MEDLINE (National Library of Medicine, Bethesda, MD), EMBASE (Elsevier, Amsterdam, Netherlands), PsycInfo (American Psychological Association, Washington, DC), and Cochrane Library (John Wiley & Sons, Hobken, NJ, USA) were searched on August 1, 2020 without language and date limitation. The Cochrane Risk of Bias tool for randomized controlled trials and the Risk of Bias in Non-Randomized Studies - of Interventions (ROBINS-I) (Cochrane, London, UK) were used to assess the quality of the studies included. SPSS (IBM Corp., Endicott, NY, USA) was used for descriptive, comparative, and correlational summaries.
Results: From 376 articles, only 9 studies met the criteria and were included after screening. The most common outcome was knowledge improvement, followed by increased confidence, and competence. Other outcomes encompassed Attitude, preparedness, and therapeutic engagement.
Conclusion: PFA is the most suggested early intervention aftermath and could be acquired by professionals and non-professionals in the mental health area. Nonetheless, to obtain the desired outcome, PFA training programs' quality is vital. This review revealed that most training programs' duration was short, without scenario-based interactions and post-training supervisions. More controlled trials are required to measure the effectiveness of PFA training on the providers.

Significant acceleration in psychological distress and dysfunction in both survivors and first responders, is a consequent product of every disaster.[1] Whether it is a great disaster causing severe injuries and disturbances to many people such as hurricanes, or a devastating event that involves individuals or a family like horrendous accidents, house fire, or domestic violence, there is an urge to attend to those affected.[2] Psychological first aid (PFA) is suggested to be used as the immediate administration aftermath.[3]

PFA is a method used globally to assist individuals affected by crises, disasters, or catastrophic events.[4] It is an evidence-informed method designed to diminish the distress elicited by adverse occurrences and facilitate the process of adaptive functioning and coping.[5,6] Unlike psychotherapy that is given by mental health professionals in specific settings where the incidents are discussed in-depth,[1] PFA can be acquired by anyone who is in a position to provide support in disastrous events, including disaster relief organization workforces, volunteers, health care workers, educators, and others. Having a background in mental health-related areas is not essential for PFA providers[7]; moreover, it can be applied in the field and does not require a specific setting.[3] Learning PFA skills could also benefit helpers in their everyday duties to provide support in the wake of catastrophes.[7]

PFA training modules need to enable learners to gain rudimentary knowledge vital for on the spot mental health intervention, and empower providers with technical self-efficacy and self-confidence to have an optimal impact on public health.[1]

The usefulness of PFA as an immediate intervention in disastrous events and for people affected by those occurrences is of consensus.[8] Nevertheless, there is still little evidence in literature regarding the optimal duration, method, and protocols used in PFA training worldwide. This paper aimed to investigate the impact of PFA training on the providers through different training methods, various training durations, and participants with dissimilar backgrounds and positions.

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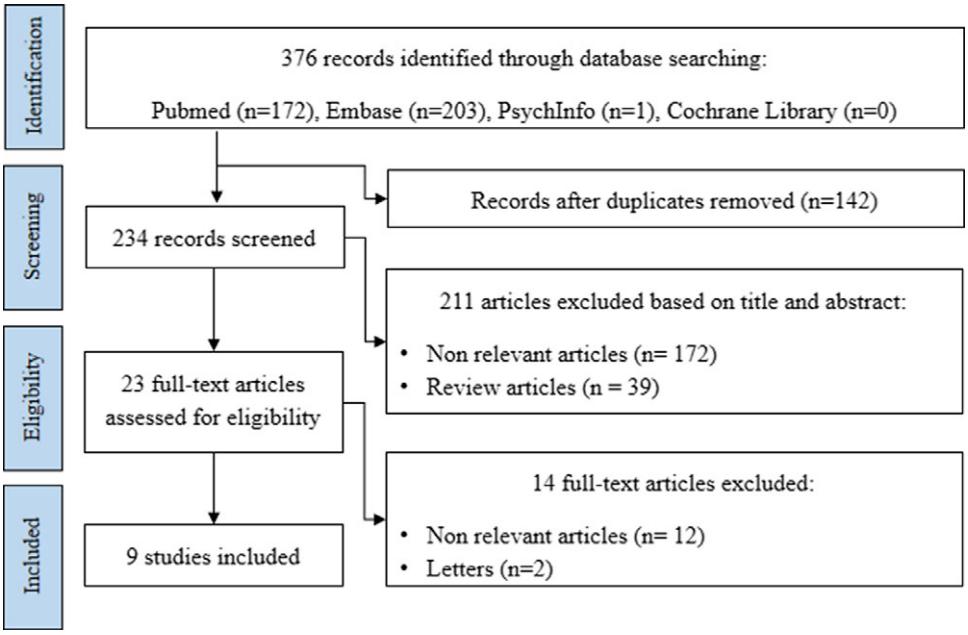

Figure 1. PRISMA flow diagram of literature search.

Methods

This systematic review was conducted according to the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) 2015 statement.[9] We performed a search on MEDLINE (National Library of Medicine Bethesda, MD), EMBASE (Elsevier, Amsterdam, Netherlands), PsycInfo (American Psychological Association, Washington, DC), and Cochrane Library (John Wiley & Sons, Hobken, NJ, USA) by using keywords related to psychological first aid without language or date restriction on August 1, 2020. We hand-searched reference lists of relevant reviews, emailed authors of conference abstracts for further information, and 2 reviewers screened the titles, and abstracts independently. All studies assessing the efficacy of PFA training on care providers were included. Duplicate articles, editorials, commentaries, and reviews were excluded.

In order to assess bias in included studies, we used the Cochrane Risk of Bias tool for randomized controlled trials (RCTs) (Cochrane, London, UK),[10] and the Risk of Bias in Non-Randomized Studies - of Interventions (ROBINS-I) tool (Cochrane, London, UK) for non-randomized studies of interventions.[11] The purpose of data extraction was to obtain the study design, the country in which the study was conducted, participants' baseline information, type of training, and outcomes from each study consistently to interpret and analyze the findings. The data extraction was carried out by 2 researchers.

Any disagreements were discussed and resolved by a third reviewer if required. Descriptive, comparative, and correlational summaries were performed using SPSS (IBM Corp., Endicott, NY, USA).

Results

A PRISMA flow diagram outlining the results at each step can be found in Figure 1. Initial papers identified through literature search yielded 376 articles. No additional article was added after hand searching and checking the reference lists of relevant reviews. In total, we excluded 367 articles because they were duplicate, non-relevant, and letters.

Out of the 9 included articles, 1 consisted of 2 independent studies.[12] Therefore, we considered both as 2 separate studies. Out of the studies that met inclusion criteria, 2 were RCT, and 8 before-after quasi-experiments (Table 1). All studies were performed after 2009. Table 2 shows the risk of bias assessment of the included RCTs and quasi-experimental studies.

The method of training, in all studies, was face-to-face group training. A total of 3 studies used simulation-based training and role-playing too, that led to better outcomes. The training length was 4-6 hours in 80 percent of studies (Table 1). The increase in knowledge was the most common outcome reported in 70 percent of studies, followed by confidence and competence (50% and 40%, respectively). Attitude (20%), preparedness (20%), and therapeutic engagement (10%) were the other outcomes. Most of the studies were done in the United States (n = 4, 40%).

Discussion

This review's finding indicated that PFA training improved participants' knowledge, competence, and confidence in providing psychosocial intervention regardless of trainees' baseline information, the place of study, duration, and method used. It was also reported that acquiring PFA skills increased providers' confidence in working with both adults and children[19]; therefore, it could be considered a practical framework to deliver support during a catastrophe.

Additionally, acquiring fundamental principles of PFA reminded participants of the importance of nonverbal communication and listening skills were pointed out as main components.[17] It is worth mentioning that in 1 study, higher satisfaction with PFA was reported by individuals who had no previous emergency response experience when compared to experienced participants.[19]

According to table 2, most of the studies were quasi-experiments (78%), and more than half of the studies (60%) had acceptable quality; however, to precisely measure the effectiveness of an

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Table 1. Characteristics of the included studies

Study (Year)	Country (place of study)	Study Design	Participants				Training			Outcome (Impact*)
			No.	Gender	Age (years)	Position	Type	Trainer	Duration	
Sijbrandij (2020)[4]	Sierra Leone & Liberia	RCT**	333	Both	39.5 ± 9.26	Primary Care provider	Face to face group training	Trained mental health nurses	1 day	Knowledge (↑: $P = 0.001$) Professional attitude (↑:$P = 0.04$)
Kılıç (2019)[13]	Turkey	RCT	76	Both	≥ 20	Student of nursing	Face to face group training	Researcher	6 hours in 6 weeks	Competence (↑: $P < 0.01$) Perceived preparedness (↑)
Kantaris (2020)[14]	England	Quasi-experiment	16	Both	20 - 61	Care provider	Face to face group training	–	1 day (5 hours)	Knowledge (↑) Competence (↑) Therapeutic engagement (↑: $P < 0.05$) Confidence (↑: $P < 0.05$)
Ford-Paz (2019)[15]	United States	Quasi-experiment	948	–	–	Educator	Face to face group training	Mental health professionals	–	Knowledge (↑) Negative attitude (↓)
Lee (2017)[12] -Study 1	South Korea	Quasi-experiment	37	Both	18 - 36	Student of clinical psychology	Face to face group training Simulation-based training	Clinical psychologists	1 day (6 hours)	Knowledge (↑: $P < 0.001$) Competence (↑: $P < 0.001$)
Lee (2017)[12] -Study 2	South Korea	Quasi-experiment	73	Both	24 - 64	School counselor	Face to face group training Simulation-based training	Clinical psychologists	1 day (6 hours)	Knowledge (↑: $P < 0.001$) Competence (↑: $P < 0.001$) Perceived preparedness (↑: $P < 0.001$) Confidence (↑: $P < 0.001$)
Akoury-Dirani (2015)[16]	Lebanon	Quasi-experiment	60	–	–	Social worker	Face to face group training	–	2.5 days	Knowledge (↑) Confidence (↑: p<0.001)
Chandra (2014)[17]	United States	Quasi-experiment	76	Both	18 - 65	Health Volunteer	Face to face group training Role-playing	–	1 day (4 hours)	Knowledge (↑) Confidence (↑: $P < 0.01$)
McCabe (2014)[18]	United States	Quasi-experiment	–	Both	–	Leaders of local health departments and faith-based organizations	Face to face group training	–	1 day	Knowledge (↑) Preparedness (↑)
Allen (2010)[19]	United States	Quasi-experiment	50	Both	88%: 30-59	Care provider	Face to face group training	Staff from the National Child Traumatic Stress Network	1 day	Confidence (↑)

*↑: increase; ↓: decrease, **Randomized Control Trial

Table 2. Risk of bias summary for included studies

Study (Year)	Sijbrandij (2020)[4]	Kılıç (2019)[13]	Kantaris (2020)[14]	Ford-Paz (2019)[15]	Lee (2017) Study 1[12]	Lee (2017) Study 2[12]	Akoury-Dirani (2015)[16]	Chandra (2014)[17]	McCabe (2014)[18]	Allen (2010)[19]
Risk of bias for randomized controlled trial[10]										
Random sequence generation (selection bias)	⊕	⊕								
Allocation concealment (selection bias)	⊖	⊖								
Blinding of participants (performance bias)	⊕	⊕								
Blinding of personnel (performance bias)	⊕	⊕								
Blinding of outcome assessor (detection bias)	⊖	⊖								
Incomplete outcome data (attrition bias)	⊕	⊖								
Selective Reporting (reporting bias)	⊕	⊖								
Other bias	⊕	⊖								
Overall	⊕	⊕								
Judgment: ⊕ Low; ⊖ Unclear; ⊗ High										
Risk of bias for controlled non-randomized studies of interventions[11]										
Bias due to confounding			⊗	○	○	○	○	○	⊗	⊗
Bias due to selection participants			⊕	⊕	⊕	⊕	⊕	⊖	⊖	⊕
Bias in classification of interventions			⊕	⊗	⊕	⊕	⊕	⊕	⊕	○
Bias due to deviation from intended interventions			○	○	○	○	⊖	○	○	○
Bias to missing data			○	○	○	○	⊖	○	○	○
Bias in measurement of outcomes			⊕	⊖	⊕	⊕	⊕	⊕	⊕	⊕
Bias in selection of the reported result			⊕	⊖	⊕	⊕	⊕	⊕	⊕	⊕
Overall			⊗	⊗	⊕	⊕	⊕	⊕	⊗	⊗

Judgment: ⊕ Low (No); ⊖ Moderate (Probably No); ⊗ Serious (Probably Yes); !Critical (Yes); ○ No information

intervention, controlled trials are preferred. All articles included in this review were written in the past decade, which portrays that the topic is relatively novel and demands more attention and scrutiny.

Horn *et al.* (2019) discussed that PFA acquisition is not as easy as it is proposed. It is expected that trainees could learn empathic psychosocial support and become equipped with the required skills to deliver it effectively in a short time. However, it is unlikely to be feasible to adapt pre-existing attitudes and lifetime learned responses, which may be aligned with one's social and cultural norms, to a different pattern of responding in only a day.[8] The other controversy about 1-day PFA training is that although it might be sufficient for some people with good communication skills and high empathy levels, most non-professional trainees cannot deliver adequate, supportive, and harmless psychosocial service during the time frame.[8] Despite these critiques regarding 1-day PFA workshops' efficacy, our findings revealed that most training sessions took place in a day.[4,12,14,17–19]

Moreover, studies suggest that for empathy training to be practical, it requires all 4 behavioral training skills, namely instruction, modelling, practice, and feedback, and it should be genuinely experiential, which means role-playing, and receiving feedback on one's performance are essential for each of the participants in order to strengthen the acquisition and develop new concepts and skills.[20] Training effectiveness is less when participants are merely being exposed to a demonstration, observing other trainees role-play, or participating in role-playing without receiving individualized feedback, which often is the case as the time is short and the number of participants is large.[20] There were only 3 programs in which role-playing and simulation-based scenarios were used among the studies we reviewed, and those 3 had better outcomes compared to other training programs.

The other factor reported to be a prominent predictor in changing behavior is post-training supervision.[21] There is no evidence of post-training supervision in studies conducted to examine the efficacy of PFA training. Although some studies had follow-ups to measure the lasting effect of training on participants for up to 6 months, a decrease in the results over time indicated the necessity of reconducting the training program.[13]

Conclusion

It is important to note that although PFA is the most recommended immediate intervention aftermath and could be acquired by anyone

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willing to help disaster-affected people, the quality of PFA training is the key to obtaining the desired outcome; non-harmful, empathic, psychosocial support during emergencies. As mentioned by Horn *et al.* (2019), the misleading assumption that PFA is a low-cost and easy to learn approach often results in short training programs with minimum or no follow-ups.[8] The current review also supported this notion that most of the training programs concerning PFA have been short, with few scenario-based interactions and role-playing opportunities, and without post-training supervisions. Hence, to observe the extent of PFA training efficacy on providers, more studies with higher quality training programs are required.

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Author contributions. MS and EA designed the study. MS developed the search strategy. MM and MKN performed data screening, acquisition, and appraising the quality of studies. MM wrote the manuscript. MS and EA were involved in the critical revision of the manuscript. All authors reviewed and approved the final draft.

Conflict of interest. None.

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