

# Psychotherapies for posttraumatic stress disorder applied for people in Indonesia: A scoping review

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## Abstract

**Background:** Posttraumatic stress disorder (PTSD) occurs as triggered or exposure to traumatic events. Psychotherapies have been proven to be effective and superior for people with PTSD. Several psychotherapies have been developed with different approaches. Yet the application of psychotherapy is rarely found and provided by professionals to those who need it in Indonesia.

**Purpose:** This study aimed to figure out the application of PTSD psychotherapies for people with PTSD based on studies conducted in Indonesia.

**Methods:** The review was reported following the PRISMA statement for scoping reviews. A systematic screening was performed in CINAHL, Cochrane library, Embase, Portal Garuda, PubMed, Scopus, as well as manual searches without language and date restrictions. The quality of the study was determined based on the risk of bias. Cochrane risk of bias 2.0 (RoB 2.0) and MINORS were used to evaluate the risk of bias of RCT and quasi-experimental studies, respectively.

**Results:** Five RCTs and four quasi-experimental studies published from 2008 to 2022 (n=465) were employed in this review. Three types of therapies were conducted for people with PTSD; five CBT studies, two EMDR studies, and two SHAT studies, performed in one day up to six weeks, one to 15 sessions, and 30 to 60 minutes for each session. All studies evaluated PTSD as the primary outcome, while the most measured secondary outcomes were depression and anxiety symptoms.

**Conclusion:** CBT was the most frequent therapy for Indonesian people with PTSD, followed by EMDR and SHAT. The application of therapies varied in frequency, duration, length of therapy, and component. Further research on the implementation of various types of psychotherapy for people with PTSD will be required.

**Keywords:** Indonesia; scoping review; psychotherapy; PTSD

## Introduction

Psychological trauma arises from experiencing or witnessing traumatic events such as violence, abuse, assaults, natural disaster, war or political conflict, and accidents. Posttraumatic stress disorder (PTSD) occurs as triggered by or exposure to traumatic events (APA, 2013). According to the Diagnostic and Statistical Manual for Mental Disorder fifth edition (DSM-5), a person can be diagnosed for having PTSD if symptoms remain more than a month after exposure. Even though some traumatized people respond with resilience without intervention, some of them develop PTSD (Koenen et al., 2017; National Institute of Mental Health, 2022). Indonesia is prone to natural disasters (TheJakartaPost, 2019); therefore, people have a greater risk of developing PTSD.

PTSD showed the highest prevalence (34.4%) of psychological problems among natural disasters' survivors, followed by depression (25.0%) and prolonged grief disorder (23.3%) (Saeed & Gargano, 2022). Approximately 3.9 % of 51,797 people exposed to traumatic events developed PTSD, with a higher number of cases identified in upper-middle countries (Koenen et al., 2017). Numerous studies have been conducted to evaluate the prevalence of PTSD following disasters. The prevalence of PTSD among survivors was identified at 59.9% one year after an earthquake (Aurizki et al., 2019), 58.3% six months after an earthquake (Marthoenis et al., 2019), while 20.6% at five years after a tsunami (Irwanto et al., 2015). Besides, the overall incidence of PTSD in Sumatera and West Java populations was 20.9% (Downs et al., 2017).

The high prevalence of PTSD also comes along with consequences. Therefore, people with PTSD should be treated either using pharmacotherapies or non-pharmacotherapies. Untreated PTSD will lead to other mental health problems. People with untreated PTSD are more likely to conduct suicidal attempts, substance use, develop complex PTSD, have physical and mental health complications (Armenta et al., 2018; Flannery, 2001; Fox et al., 2021), and tend to show poor prognosis once they receive treatment (Priebe et al., 2009). As a consequence, prolonged morbidity, low quality of life, and higher cost of care are some problems that emerged (Priebe et al., 2009).

Psychotherapies have been proven to be effective and superior for people with PTSD (Coventry et al., 2020; Merz et al., 2019). Psychotherapies showed a high to moderate effect size in decreasing PTSD symptoms with low to high certainty (Yunitri et al., 2023). Based on the American Psychological Association (APA), several psychotherapies have been developed with different approaches. Cognitive behavior therapy (CBT), cognitive processing therapy (CPT), cognitive therapy (CT), and prolonged exposure (PE) are categorized as strongly recommended. On the second level, brief eclectic psychotherapy (BEP), eye movement desensitization and reprocessing (EMDR), and narrative exposure therapy (NET) are conditionally recommended. At the same time, seeking safety (SS) and relaxation (RLX) therapy is supported by limited evidence to be recommended as PTSD therapies (APA, 2017a). However, although psychotherapy was found as the most effective approach, most of the mentioned therapies for people with PTSD in APA are rarely found and provided by professionals to those who need it in Indonesia. To date, no review has been conducted to determine which psychotherapy was conducted for people with PTSD in Indonesia. Therefore, this study aimed to figure out the application of PTSD psychotherapies provided for people with PTSD in Indonesia.

## Methods

### Search strategy

This study was conducted following the guideline for conducting a scoping review developed by the Joanna Briggs Institute (JBI) (Peters et al., 2015), and the reporting followed the preferred reporting items for systematic review and meta-analysis (PRISMA) statement for scoping review (Tricco et al., 2018). The main idea of this scoping review was to determine the type of psychotherapy that had been applied and evaluated for people with PTSD in Indonesia. The terms were tailored to the specific databases using medical subject headings (MeSH) and emtree, combined with Boolean operators, to cover a broader yet relevant articles focus on "Indonesia," "psychotherapy," and "posttraumatic stress disorder" without language and date restriction. The search was conducted on August 2nd, 2022, in six databases, including CINAHL, Cochrane library, Embase, Portal Garuda, PubMed, and Scopus. Manual or hand search was also performed in Google Scholar and citations from potentially relevant studies.

### Screening

A systematic screening was performed by two authors independently. Disagreements between authors were discussed with third parties until a consensus was achieved. Study was eligible to be included in this review if it met the following criteria:

#### Population

This study focused on evaluating the effectiveness of psychotherapy on people with PTSD without age, gender, or trauma background restrictions. PTSD diagnosis can be determined based on the clinician-rated or self-reported instrument.

#### Interventions and comparisons

Referring to the PTSD guideline issued by American Psychological Association (APA), cognitive behavior therapy (CBT), cognitive processing therapy (CPT), cognitive therapy (CT), prolonged exposure (PE), brief eclectic psychotherapy (BEP), eye movement desensitization and reprocessing (EMDR), narrative exposure therapy (NET) seeking safety (SS), and relaxation (RLX), have been mentioned as treatments for people with PTSD (APA, 2017a). However, in this study, we include all types of psychotherapies even though they were not listed in the APA guideline. The intervention could be compared to either active or passive comparisons.

#### Outcome

The primary outcome was PTSD symptoms at the treatment endpoint. The result from clinical rated is prioritized over self-reported if both data were provided in the article, while secondary outcomes depend on the availability of the included articles.

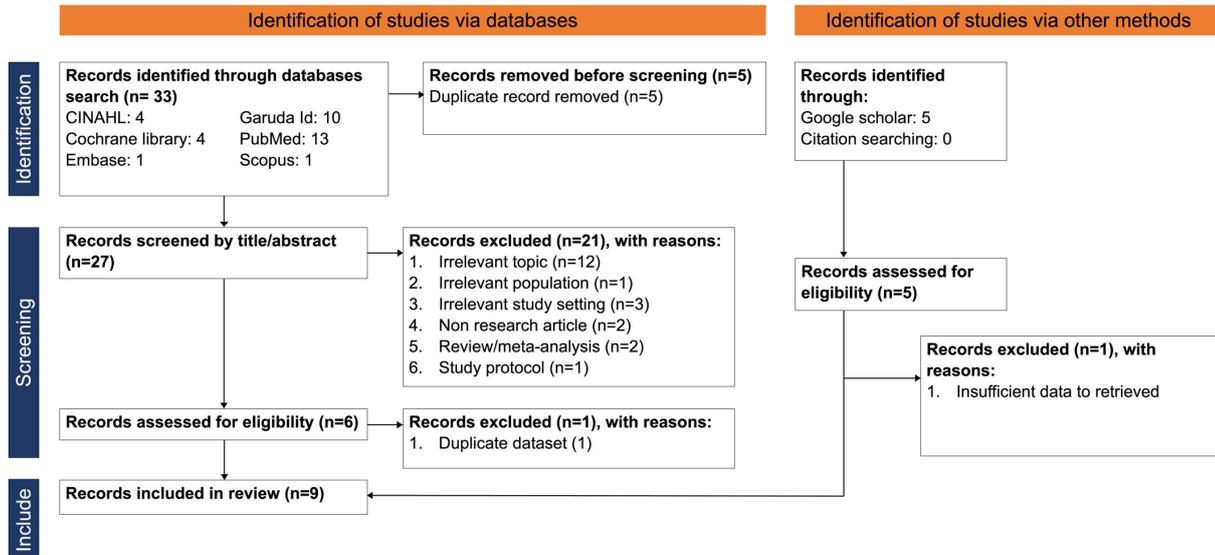


Figure 1. PRISMA Flow Chart Diagram

### Study design

This study employed randomized controlled trials (RCTs) and quasi-experiment studies with a control group without language and date of publication restrictions. In case of duplicate publication with the same dataset, we include the one with a higher sample size or the latest publication date.

### Data extraction

All studies included in this review were extracted by two authors based on study characteristics (study identity, journal name, study setting, study design, purpose, and quality), participant characteristics (population, diagnostic criteria, sample size, age, gender, and trauma background), intervention characteristics (psychotherapy name, frequency, duration, total time, content of the therapy, and therapist specification), and outcome characteristics (primary-secondary outcomes, instrument, and time measurement).

### Quality assessment

The quality of the study was determined based on the risk of bias. Cochrane risk of bias 2.0 (RoB 2.0) and MINORS were used to evaluate the risk of bias of RCT and quasi-experimental studies, respectively. Cochrane RoB 2.0 assessed the risk of bias related to the randomization process, deviation from intended intervention, missing outcome data, measurement of the outcomes, and selection of the reported results. The bias is categorized into low, some concern, and high risk of bias (Higgins et al., 2022). Meanwhile, the methodological index for non-randomized studies (MINORS) was used to evaluate the risk of bias in quasi-experimental studies. The MINORS tool has been validated to assess the quality of comparative and non-comparative non-randomized surgical research. It has eight elements for non-comparative studies. The maximum score is 16 for non-comparative studies. The item score ranged from 0 to 2, and the

final score will be categorized into three levels very low quality (0 to 4); low quality; (5 to 8), moderate quality (9 to 12); and high quality (13 to 16) (Slim et al., 2003).

## Results

### Search outcomes

Thirty-three studies were retrieved from CINAHL, Cochrane library, Embase, Portal Garuda, PubMed, and Scopus. Using EndNote, about five duplicate articles were removed. The remaining records were screened based on title and abstract, yielded six articles. Manual search through Google Scholar also found five articles that met the inclusion criteria. Two articles were excluded because of the same dataset and insufficient data, leaving nine records in this scoping review (Figure 1).

### Studies characteristics

The nine studies were published from 2008 to 2022, with most RCT (57.1%), and conducted in other than Java Island (83.3%) of Indonesia. Among 465 participants, most of them were male (285; 61.3%), children (292; 62.8%), exposed to civil conflict or terrorist attacks (262, 56.3%), and diagnosed with PTSD using The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI), The Diagnostic and Statistical Manual of Mental Disorders IV text revision (DSM-IV-TR), Impact of Event Scale revised (IES-R), Structured Clinical Interview for DSM-5 (SCID-5), Child PTSD Symptom Scale (CPSS), Childhood Trauma Questionnaire (CTQ), and PTSD questionnaire by Weathers, Huska, and Keane (Table 1).

### The contents of the interventions

We identify three types of therapies conducted for people with PTSD, including CBT (Dawson et al., 2017; Sarimin & Tololiu, 2017; Tol et al., 2008),

Table 1. Data Extraction of Included Studies of Psychotherapies for PTSD Applied in Indonesia

Study ID	Journal	Study purpose	Study setting & design	Population & Diagnostic criteria	Sample size, Age, & Gender	Trauma Background, n (%)	Outcomes (instrument)	Time measurement
Dawson et al., 2017	Australian and New Zealand Journal of Psychiatry	To evaluate the relative efficacies of Trauma-focused CBT and problem-solving therapy in treating PTSD in children affected by civil conflict in Aceh	Aceh RCT	Children UCLA PTSD RI	Sample size: 32 Age, M (SD): 10.5 (0.93) Female, n (%): 14 (43.75)	Civil conflict, 32 (100)	PTSD (Children report) PTSD (Caregiver report) Depression Anger	Baseline Posttreatment 3 months FU
Efendi et al., 2020	Working with Older People	To determine the effect of TF-CBT on the level of depression and the quality of life of the elderly living in post-disaster areas such as in the districts of North Lombok in Indo	Nusa Tenggara barat RCT	Elderly CAPS-5	Sample size: 90 Age, M (SD): 71.28 (-) Female, n (%): 70 (77.8)	Disaster, 90 (100)	PTSD (CAPS-5) Depression (GDS-15) Quality of life (WHO-QoL-BREF)	Baseline Posttreatment
Lesmana et al., 2011	Frontiers in American Journal of Clinical Psychosis	To assess the effectiveness of SHAT for treatment of PTSD in children	Bali Quasi-experiment	Children DSM-IV-TR	Sample size: 48 Age, M (SD): 9.35 (1.33) Female, n (%): 23 (47.90)	Terrorist attacked, 48 (100)	PTSD (self-developed instrument)	Baseline 24 months FU
Lesmana et al., 2022	Egypt Journal Neural Psychiatry Neurosurgery	To assessed the behavioural effectiveness of SHAT on the modification of cortisol levels and PTSD symptom severity in adults with childhood trauma	Bali RCT	Adults PCL-C CTQ	Sample size: 29 Age, M (SD): 33.28 (5.66) Female, n (%): 16 (55.20)	NI	PTSD (PCL-C, Cortisol)	Baseline Posttreatment
Perangin angin et al., 2021	Jurnal Psikologi,	To investigate the effectiveness of CBT in reducing PTSD symptoms in survivors of Dating violence	Salatiga Quasi-experiment	Adults PCL-5	Sample size: 4 Age, M (SD): 23.25 (NI) Female, n (%): 4 (100)	Dating partners, 4 (100)	PTSD (PCL-5)	Baseline Posttreatment
Rahmania and Moordiningsih, 2012	Jurnal Intervensi Psikologi	To examine the therapeutic effect of differences in EMDR and stabilization technique to people with PTSD	NI Quasi-experiment	Adults IES-R	Sample size: 3 Age, M (SD): NI Female, n (%): NI	Accident, 3 (100)	PTSD (IES)	Baseline Posttreatment

Cont. Table 1. Data Extraction of Included Studies of Psychotherapies for PTSD Applied in Indonesia

Sarimin and Toliu, 2017	International Journal of Research in Medical Science	To determine the difference score of PTSD symptom after receiving CBT PLUS in school-age children	Sulawesi Selatan Quasi-experiment	Children PTSD questionnaire by Weathers, Huska and Keane	Sample size: 30 Age, M (SD): NI Female, n (%): 18 (60%)	NI	PTSD (PTSD questionnaire by Weathers, Huska and Keane)	Baseline Posttreatment
Susanty et al., 2022	Frontiers in Psychology	To evaluate the effectiveness of EMDR of EMD in reducing PTSD symptom compared to retrieval-only control condition among Indonesian adults diagnosed with PTSD	Bandung, Cimahi, & Jakarta RCT	Adults SCID-5	Sample size: 47 Age, M (SD): 26.15 (6.81) Female, n (%): 42 (89.4)	Violence, 27 (57.4) Abuse, 5 (10.6) Other, 15 (31.9)	PTSD diagnosis (SCID-5) PTSD symptoms (PCL-5) Anxiety (HSCCL-25) Depression (HSCCL-25) Quality of life (WHO-QoL-BREF)	Baseline 1 week post-treatment 1 month FU 3 months FU
Tol et al., 2008	JAMA	To assess the efficacy of a CBT-school-based intervention designed for conflict-exposed children, implemented in a low-income setting	Poso RCT	Children CPSS	Sample size: 182 Age, M (SD): 10.08 (1.39) Female, n (%): 99 (54.4)	Conflict-exposed, 182 (100)	PTSD symptoms (CPSS) Anxiety (SCARED-5) Depression (DS-RS) Trauma idiom Function impairment Hope (CHS) Aggression (CAS-parent)	Baseline 1 week post-treatment 6 months FU

Abbreviation. Identity (ID); Sample size (n); Randomized controlled trial (RCT); Cognitive behavior therapy (CBT); Posttraumatic stress disorder (PTSD); The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI); Mean (M); standard deviation (SD); Follow up (FU); Trauma focused cognitive behavior therapy (TF-CBT); Clinician-administered PTSD scale based on DSM-5 (CAPS-5); Geriatric depression scale-15 (GDS-15); The world health organization quality of life brief version (WHOQoL-Bref); Spiritual-Hypnosis Assisted Therapy (SHAT); Diagnostic and statistical manual for mental disorder IV text revision (DSM-IV TR); PTSD checklist-civilian (PCL-C); Childhood trauma questionnaire (CTQ); No information (NI); PTSD checklist based on DSM-5 (PCL-5); Impact event scale revised (IES-R); Impact event scale (IES); Eye movement desensitization and reprocessing (EMDR); Eye movement desensitization (EMD); Structured clinical interview diagnosis based on DSM-5 (SCID-5); Hopkins symptom checklist 25 (HSCCL-25); Children posttraumatic stress scale (CPSS); Screen for Child Anxiety Related Emotional Disorders (SCARED-5); Birtleson depression self-rating scale (DS-RS); Children's hope scale (CHS); Children's aggression scale (CAS).

Table 2. Characteristics of Psychotherapies for PTSD Applied in Indonesia

Type of the intervention	Therapy sessions, duration, & frequency	Therapist	Content & format	Effectiveness	Study
CBT/TF-CBT	Length of therapy: 6-15 sessions Duration: 30-60 min Frequency: 1-3x/week	High school or higher level with CBT training for five to 14 weeks	Although the number of sessions of CBT in both studies were different, there are some common topics in such as psychoeducation, cognitive restructuring, trauma exposure either in vivo, prolonged, or narratively.  The therapy was delivered in child-friendly format (games, video, school-based intervention)  Dawson et al, 2017 Therapy was delivered in child-friendly activities, games, and videos. Session 1: Children, Psychoeducation about trauma and stress management Session 2: Children, Introduction to basic cognitive restructuring Session 3: Children & caregiver In vivo exposure Session 4: Children, In vivo exposure Session 5: Children, Modified prolonged exposure Session 6: Children, Modified prolonged exposure  Sarimin & Tolollu, 2017 cognitive restructuring method (writing negative thinking and problem solving  Tol et al, 2008 Session 1-3: Treatment information, safety-control, psychoeducation Session 4-6: Stabilization, awareness, self-esteem Session 7-9: Trauma narrative Session 10-12: Trauma narrative Session 13-15: Reconnecting child and group	CBT significantly decreased the symptom of PTSD, anger function impairment, hope, and quality of life overtime with low to moderate effect size at immediate posttreatment and short-term follow up	1,2, 5, 7, & 9
			Efendi et al, 2020 NI		
			Perangin angin et al, 2021 Phase 1: Psychoeducation Phase 2: Cognitive restructuring and behavior therapy Phase 3: Relaxation technique		

Cont. Table 2. Characteristics of Psychotherapies for PTSD Applied in Indonesia

EMDR	<p>Length of therapy: 1-6 sessions Duration: 45-120 min Frequency: NI</p> <p>Clinical psychologist with one-year training experience</p> <p>Only Susanty et al, 2022 provide complete information due to content of EMDR therapy, which are:</p> <ul style="list-style-type: none"> <li>•Client history and treatment planning</li> <li>•Preparation</li> <li>•Assessment</li> <li>•Desensitization</li> <li>•Closure</li> </ul>	<p>EMDR showed significant effect to decrease PTSD symptom, anxiety, depression, and quality of life (<math>p &lt; .05</math>) at immediate posttreatment and short-term follow ups</p> <p>Lower attrition rate (74.5%) for the EMDR group might affect the results</p>	6, 8
SHAT	<p>The researcher</p> <p>Therapy was delivered as follow:</p> <ul style="list-style-type: none"> <li>•Meditation trance induction</li> <li>•Deep breath for 5 times</li> <li>•Guided suggestion and reframe the meaning of traumatic memories</li> <li>•Express the emotion and visualized the past</li> <li>•Express undesirable feeling with crying, shouting, or inhale/exhale</li> <li>•Guided to understand and accept the past trauma</li> </ul> <p>Length of therapy: 1 session Duration: 30 min Frequency: 1x/week</p>	<p>SHAT showed larger PTSD symptoms reduction (<math>p &lt; .05</math>) at immediate posttreatment and two years with effect size 0.52.</p> <p>In addition, more than half (77.1%) children received SHAT showed an improvement at two years follow up.</p>	3, 4

Abbreviation. Posttraumatic stress disorder (PTSD); Cognitive behavior therapy (CBT); Trauma focused cognitive behavior therapy (TF-CBT); Eye movement desensitization and reprocessing (EMDR); No information (NI); Spiritual-Hypnosis Assisted Therapy (SHAT);

EMDR (Rahmania & Moordiningsih, 2012; Susanty et al., 2022), and Spiritual-hypnosis Assisted Therapy (SHAT) (Lesmana et al., 2009, 2022). Regarding the content, although only CBT contains psychoeducation, most therapies involve trauma recall and cognitive restructuring in treating PTSD. It brings back the traumatic experience through in vivo (Dawson et al., 2017; Lesmana et al., 2009, 2022), prolonged (Dawson et al., 2017), and narrative exposure (Tol et al., 2008) approaches.

The duration of intervention ranged from one day to six weeks. Generally, the intervention session varied from one (Lesmana et al., 2009, 2022; Rahmania & Moordiningsih, 2012), three (Sarimin & Tololiu, 2017), six (Downs et al., 2017; Perangin-Angin et al., 2021; Susanty et al., 2022), and 12 (Efendi et al., 2020), to 15 (Tol et al., 2008) sessions. The length of the session ranged from 30 to 60 minutes. The frequencies were weekly (Dawson et al., 2017) and semiweekly (Tol et al., 2008). Most of the therapy was delivered by trained therapists with a wide range of qualifications, while one was provided (Lesmana et al., 2009) or might be provided (Lesmana et al., 2022; Sarimin & Tololiu, 2017) by the researcher itself and by non-professional trained healthcare therapists (Dawson et al., 2017; Tol et al., 2008).

**Outcomes, tools, and measurement times**

Participants were diagnosed with PTSD using various instruments, including The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI), The Diagnostic and Statistical Manual of Mental Disorders IV text revision (DSM-IV-TR), Impact of Event Scale revised (IES-R), Structured Clinical Interview for DSM-5 (SCID-5), Child PTSD Symptom Scale (CPSS), Childhood Trauma Questionnaire (CTQ), PTSD Checklist for DSM-5 (PCL-5), and Clinician-Administered PTSD Scale for DSM-5 (CAPS-5). All nine included studies measured PTSD symptoms as the primary outcome. In addition, PTSD symptoms were also assessed from the parents' perspective (Dawson et al., 2017). Depression (Dawson et al., 2017; Susanty et al., 2022; Tol et al., 2008) and anxiety symptoms (Susanty et al., 2022; Tol et al., 2008) were the most common secondary outcomes

**Table 3. Quality Assessment of Psychotherapies for PTSD Applied in Indonesia**

Study ID	Domain ROB)					Overall bias
	1	2	3	4	5	
Dawson et al, 2021	S	L	L	L	L	Some concern
Effendi et al, 2020	L	S	L	L	L	Some concern
Lesmana et al, 2020	L	L	L	L	L	Low
Susanty et al, 2022	L	L	L	L	L	Low
Tol et al, 2008	L	L	L	L	L	Low

Study ID	Items MINORS								Overall score	Quality
	1	2	3	4	5	6	7	8		
Lesmana et al, 2009	2	2	2	2	1	2	2	2	15	High
Peraning et al, 2021	2	2	2	2	1	2	2	1	14	High
Rahmania, et al, 2012	2	2	2	2	0	2	1	2	13	High
Sarimin et al, 2017	2	2	2	1	0	2	1	2	12	Moderate

Abbreviation. Identity (ID); Cochrane risk of bias 2 (ROB 2); Methodological index for non-randomized study (MINORS); Low risk of bias (L); Some concern (S); High risk of bias (H).

Note. The RCTs studies were assessed using Cochrane RoB 2 while quasi-experimental studies were use MINORS. Cochrane RoB 2 devided the study into low risk of bias, some concern, and high risk of bias according to five domains. In MINORS, eight items were used to evaluate the quality of non-randomized study. The items are scored 0 if not reported, 1 if reported but inadequate, 2 if reported as well as adequate. The total score was categorized into very low quality (0-4), low quality (5-8), moderate quality (9-12), and high quality (13-16).

measured.

Regarding time measurement, almost all studies assessed the outcomes immediately one-week post-treatment (Dawson et al., 2017; Rahmania & Moordiningsih, 2012; Sarimin & Tololiu, 2017; Susanty et al., 2022; Tol et al., 2008). The short-term and long-term longitudinal effect was measured at one month (Susanty et al., 2022), three months (Dawson et al., 2017; Susanty et al., 2022), six months (Tol et al., 2008), and 24 months (Lesmana et al., 2009) after treatment.

## Discussion

To our knowledge, this is the first study that has explored the adoption or application of various psychotherapies for Indonesian people with PTSD. Considering that Indonesian people are at a higher risk of developing PTSD because of being exposed to many disasters, the number of studies included in this review is relatively low.

Among nine suggested psychotherapies for PTSD according to the APA guideline, only CBT and EMDR were applied, evaluated, and reported in peer review published journals. Although there was an improvement in the Indonesian international publication rate within five years, the lack of studies conducted might be related to low number of experimental study among Indonesian scientists. Considering the high number of people affected by COVID-19 as the latest disaster hit, the authors found it interesting to determine an increasing trend due to the application of PTSD psychotherapies

in Indonesia within five to ten years following. Therefore, a high number of trained therapists were needed to deliver the therapy to those who needed it.

Overall, all included studies showed a statistically significant effect of psychotherapy in decreasing PTSD symptoms with low to moderate effect size at immediate post-treatment, short-term, and long-term follow-up measurements. Psychotherapies also significantly impacted anger, hope, anxiety, depression, quality of life, trauma idioms, aggressive behavior, and functional impairment.

### Cognitive Behavior Therapy

This study found CBT as the most evaluated psychotherapy for people with PTSD in Indonesia. CBT has been shown as an effective psychotherapy with a moderate effect size in decreasing PTSD symptoms (Kliem & Kröger, 2013; Sijbrandij et al., 2016). Compared to the original version, some discrepancies were found in the total sessions given, duration, content, and frequency among the five studies included. According to APA, CBT is typically delivered in 12 to 20 sessions in individual or group format (APA, 2017b; Fenn & Byrne, 2013). Among three studies included that determine the effectiveness of CBT for PTSD, one study conducted CBT in 15 sessions (Tol et al., 2008), one study in 12 sessions (Efendi et al., 2020), two studies in six sessions (Dawson et al., 2017; Perangin-Angin et al., 2021), and one study in three sessions (Sarimin & Tololiu, 2017).

Many previously published studies also

found a varied number of sessions, influenced by several considerations such as study participant's characteristics. Although the number of therapy sessions was shortened, the core component of therapy should still be applied. The core component of trauma-focused CBT (TF-CBT) is cognitive restructuring and exposure (Fenn & Byrne, 2013). This study found not all studies provide information due to the core component of psychotherapy delivered to the participants (Efendi et al., 2020; Sarimin & Tololiu, 2017).

The effect of CBT on PTSD symptoms was evaluated at immediate post-treatment, as well as at three (Downs et al., 2017) and six months (Tol et al., 2008) follow-ups. Limited studies evaluated the longitudinal effect of CBT. Both were RCTs and included children as their participants. In addition to the primary outcome, depression was identified as the most frequently measured secondary outcome (Dawson et al., 2017; Efendi et al., 2020; Tol et al., 2008), as major depressive disorder (MDD) is comorbid with PTSD (Flory & Yehuda, 2015).

### Eye Movement Desensitization and Reprocessing

This study also found EMDR therapy evaluated was different from the original version. EMDR was originally developed by Shapiro and consisted of eight sessions (Shapiro, 1989). Yet, in the studies included, one study conducted four to six sessions (Susanty et al., 2022) and one session of EMDR (Rahmania & Moordiningsih, 2012). The core component of EMDR is memory processing, bilateral stimulation, and the therapeutic relationship (Hase, 2021). The study by Rahmania and Moordiningsih (2012) delivered a one-session EMDR on three participants. Limited information can be retrieved from this study, such as study setting, therapy content, therapist qualifications, and participant characteristics.

Compared to other types of psychotherapy, EMDR can be considered as a newly developed treatment for people with PTSD. However, EMDR showed an effective treatment for PTSD symptoms with a high effect size either in adults (Mavranezouli et al., 2020a) or younger populations (Mavranezouli et al., 2020b).

### Spiritual-Hypnosis Assisted Therapy

This study found SHAT as a new therapy developed by the author. As a newly developed therapy, detailed information about the core component of the therapy was provided. Limited studies evaluated the effectiveness of SHAT on people with PTSD. SHAT was delivered in one shoot in both studies (Lesmana et al., 2009, 2022). In the first study, the effect of SHAT on PTSD might be biased because it was measured two years after the treatment was delivered (Lesmana et al., 2009). However, a more advanced study design and procedure was adopted in the second study. The effectiveness of SHAT was evaluated through an RCT study, compared to

a control group, and outcomes were measured at baseline and immediate post-treatment. Although not all outcomes showed significant results statistically, two outcomes were measured in this study; PTSD symptoms and biomarker (cortisol) (Lesmana et al., 2022).

Despite the strong evidence found related to the effectiveness of psychotherapies for PTSD people in Indonesia, several limitations found need to be considered when interpreting the results. First, as mentioned previously, a limited number of studies were included in this scoping review. This might be related to a lack of interest in conducting and publishing experimental studies related to PTSD in Indonesia. Second, weak research methods were found in some studies, primarily related to the sample size, research design, therapist qualification, as well as the blinding method. As a consequence, high risk of bias may affect the study's quality.

## Conclusions

Limited studies have been published about PTSD psychotherapy performance in Indonesia. CBT was the most frequent therapy delivered for Indonesian people with PTSD followed by EMDR and SHAT. The application of therapies varied in frequency, duration, length of therapy, and component. Therefore, there is a need to provide training about PTSD psychotherapy, but not limited to CBT, EMDR, and SHAT, for health professionals as the first-line health service. The local government should support international publications for the application of PTSD psychotherapy. Further research on implementing various types of psychotherapy for people with PTSD will be required.

### Implications

This scoping review assists clinicians and the government in determining the implementation of psychotherapies for people with PTSD in Indonesia. Even though psychotherapies are superior to other types of interventions, their utilization is lacking. In addition, this study also plays an essential role for scientists as the fundamental data for further research topics.

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The authors declare that there is no conflict of interest.

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### Data availability

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

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