Journal of Police and Criminal Psychology
https://doi.org/10.1007/s11896-025-09730-0

# Outcomes of Trauma-Focused Psychological Therapies for Police Officers with Posttraumatic Stress Disorder Symptoms: A Systematic Review and Meta-analysis

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Accepted: 8 January 2025


**Abstract**
Trauma-focused therapies hold promise for reducing the symptoms of PTSD in police officers, but there remains a lack of certainty about the magnitude of improvement with these approaches. We aimed to determine the extent to which trauma-focused psychological therapies are effective for police officers. A random effects meta-analysis was conducted to provide a weighted estimate of the effect size of trauma-focused therapy in studies of police officers. Searches were conducted in PsycINFO, PTSDpubs, Medline and Embase databases. The screening of 1919 papers yielded four studies with 804 participants in total. The overall within subjects (pre-post) effect size was large (Hedges' $g = 1.81$), suggesting that trauma-focused psychotherapy may reduce PTSD symptoms for police officers; however, the small pool of included studies necessitates caution and requires confirmation from additional studies. There remains a lack of rigorous controlled studies, potential for improved reporting practices and limited diversity and generalisability in the literature.

**Keywords** PTSD · Police · Trauma-focused psychological therapies · Treatment · Review

Posttraumatic stress disorder (PTSD) is characterised by exposure to a traumatic event (e.g. natural disaster, sexual violence, or war/combat) and symptom clusters including hyperarousal, avoidance of traumatic stimuli, negative changes in cognition and mood and re-experiencing the trauma (APA 2013). PTSD is prevalent (8.3%) and is associated with increased rates of suicidality, physical morbidity, comorbid psychiatric disorders and functional impairment (Kilpatrick et al. 2013).

A considerable body of literature (e.g. Bisson and Andrew 2007; Gerger et al. 2014; Jericho et al. 2021; Watts et al. 2013) supports the effectiveness of trauma-focused psychotherapies for the treatment of PTSD. Trauma-focused therapies use cognitive, emotional or behavioural techniques to facilitate the processing of a trauma memory and in which the trauma focus is a central component of the therapeutic process (US Department of Veteran's Affairs 2024). These include prolonged exposure (PE), brief eclectic psychotherapy (BEP), trauma-focused cognitive behavioural therapy (TF-CBT) and eye movement desensitisation and reprocessing (EMDR). While there is variation in how trauma-focused therapies are conducted, they each involve the processing of traumatic memories (Jericho et al. 2021), typically through the systematic recall and reactivation of the memory in a safe therapeutic context in a way which promotes a helpful reconsolidation of the memory.

While trauma-focused psychotherapy for PTSD is broadly effective, some groups have lower rates of treatment response than others. Around 14% of police officers meet the criteria for PTSD (Syed et al. 2020), but it is not yet clear whether police respond to trauma-focused therapy at the same rate as others. Evidence suggests that individuals who have been exposed to trauma as part of their occupation (e.g. veterans) do not tend to respond to treatment as well as civilians who have been exposed to singular traumatic events (Haugen et al. 2012). The accumulation of trauma exposure is thought to increase the complexity of their clinical presentation and undermine the effectiveness of otherwise established approaches (Richardson et al. 2009). Meta-analyses have generally reported smaller between-group treatment effect sizes

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Published online: 16 January 2025

for veterans with PTSD ($d = 0.49–1.12$) than non-veterans ($d = 1.11–1.14$), and many veterans remain in the clinical range for PTSD symptoms by the end of treatment (Bradley et al. 2005; Goodson et al. 2011; Haagen et al. 2015; Watts et al. 2013).

Like veterans, police officers experience repeated exposure to conflict-based traumas and work in settings with a strong sense of collective identity (Steinkopf et al. 2015; Woody 2005). On average police officers experience more than three potentially traumatic events in any six-month period (Patterson 2001). Police-specific traumatic experiences include responding to fatal accidents, hostage situations, armed conflicts, severe assaults, mutilations and deaths (Hartley et al. 2013). Hence, the nature of being in the police force includes regular and ongoing exposure to violent, unpredictable, harmful and hostile environments that result in cumulative exposure to traumatic events and risk of PTSD (Papazoglou and Tuttle 2018). While there are similarities in the trauma-exposures experienced by police and other first responders, police are more often expected to actively intervene to resolve physical or interpersonal conflict, such that understanding trauma-exposure and interventions for police as a specific occupational group is warranted.

Over the past several decades, studies have found that PTSD prevalence is elevated in law enforcement officers compared to civilians and appears most strongly related to repeated traumatic event exposure (Wagner et al. 2020). This may be particularly the case for long-serving police officers, for whom the consequences associated with exposure to multiple traumas may accumulate (Craddock and Telesco 2022). Police officers are more likely to die by suicide than be killed in the line of duty (Craddock and Telesco 2022). Hence, given the nature, frequency and severity of trauma exposure that police experience, and the impact it can have, it is essential that law enforcement officers diagnosed with PTSD receive efficacious treatment.

There has been a steady stream of research that supports the potential of psychological interventions for treating PTSD symptoms in police officers (Chopko and Schwartz 2013; Gersons et al. 2000; Grupe et al. 2021; Kerswell et al. 2021; Lansing et al. 2005; Martinmäki et al. 2021; Papazoglou and Andersen 2014; Smid et al. 2018; Tolin and Foa 1999; Torchalla and Killoran 2022; Wilson et al. 2001). Biggs and colleagues (2021) utilised routine clinical outcome data from a trauma support service to examine its efficacy for police with PTSD and complex PTSD (CPTSD). They found that brief trauma therapy (EMDR and TF-CBT) was effective in reducing symptoms of PTSD and CPTSD in officers. However, police with CPTSD who were exposed to more than one occupational trauma (primary and secondary) responded less favourably than police exposed to a single occupational trauma. This supports the proposition that the more occupational trauma police personnel experience, the less likely they may be to respond to therapy.

Martinmäki and colleagues (2021) evaluated the treatment response of police personnel with PTSD in a day clinic. The group treatment included EMDR or PE. Over the course of treatment, PTSD symptom severity significantly improved (within-group $d = 0.59$), with 47% of police officers demonstrating statistically reliable improvement in symptom severity. The other 41% showed no improvement and the remaining 12% worsened.

Another study examined the effectiveness of EMDR as a treatment for PTSD in police officers who had experienced on-duty shootings (Lansing et al. 2005). The results showed that EMDR led to significant improvements, as indicated by reduced PTSD symptoms. However, the study did not report the magnitude of improvement and proportion of the sample who responded to treatment. This is because the primary focus of the study was whether or not treatment changes were reflected in alterations in cerebral blood flow.

Lastly, Smid and colleagues (2018) assessed police officers with PTSD using structured clinical interviews both before and after treatment. They found that brief eclectic psychotherapy for PTSD (BEPP) significantly reduced PTSD symptoms, with a large effect size. Officers who had experienced more injury or maltreatment and private traumatic events exhibited greater reductions in PTSD symptoms during treatment.

Together, the aforementioned studies provide some confidence that trauma-focused therapies for police officers result in at least statistically significant improvements in symptoms. However, it is difficult to ascertain from individual studies, what the *magnitude* of improvements are with trauma-focused interventions. This is because not all studies report effect sizes or report on the magnitude of improvement in a similar way. Improving our understanding of the extent of improvement that can be expected when police officers receive trauma-focused therapies is crucial. This knowledge can inform decision-making processes regarding returning to work or determination that officers may be medically unfit for duties.

Thus, the primary aim of this review is to quantify the average effect of trauma-focused psychotherapy on PTSD symptoms in police officers. To achieve this aim, we conducted a random effects meta-analysis to provide a weighted estimate of the effect size of trauma-focused therapy in police officers.

## Method

### Protocol and Registration

This review followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Page et al. 2021) guidelines. The review was pre-registered

with PROSPERO (ID#CRD42023403627 Pre-registration blinded for peer review).

### Search Strategy

Searches were conducted in PsycINFO, PTSDpubs, Medline and Embase databases on the 4th of May 2023. Search terms were developed using the PICO framework and included terms relating to police officers, treatment and PTSD symptoms (See Supplementary Table 1). Searches were restricted to studies written in English in a peer-reviewed journal. All articles identified from databases were uploaded to Endnote 21. Titles and abstracts were then uploaded and screened in Covidence Systematic Review Software. This automatically removed duplicates.

### Eligibility Criteria

The primary author (SSY) and an independent reviewer (YM) conducted title and abstract screening of all retrieved papers based on the following inclusion criteria: (1) adult (18 + years old) police officers (not including corrective services officers or other emergency services workers), (2) report both pre- and post-treatment outcomes on a validated measure of PTSD symptoms (either self-report or interview based), (3) means and standard deviations (or standard errors) of PTSD symptoms reported at pre- and post-intervention and (4) peer-reviewed journals written in English. We did not require that studies include a control or comparison condition as we wanted to capture a relatively complete sample of the overall pool of studies in the peer-reviewed literature. We excluded studies which reported mixed samples of police and other emergency services workers on the basis that police have relatively unique experiences among emergency services personnel.

Following abstract and title screening, the full texts of potentially relevant papers were then retrieved and further examined against the inclusion/exclusion criteria.

### Data Extraction

A data extraction form was created in Covidence. The primary author (SSY) and secondary author (DB) agreed upon the final data codes before extraction began. Extracted data included the first author, date of publication, participant details, sample size, country in which the study was conducted, study design, type of psychotherapy, primary PTSD outcome measure, means and standard deviations (or standard errors) for pre- and post-treatment as well as key findings. Data was extracted by the primary author and an independent reviewer.

### Risk of Bias

All studies were assessed using the Quality Assessment Tool for Before-After (Pre-Post) Studies With No Control Group (National Institutes of Health 2025). This was done by the primary author and an independent reviewer (refer to Supplementary Table 2).

### Quantitative Synthesis

A random effects meta-analysis was then conducted using Comprehensive Meta-Analysis software (version 3.3.070) based on the effect sizes derived from individual included studies. Calculated effect sizes were in each instance within-subjects given that included studies did not include control groups. A pooled estimate of the overall effect size was then estimated (Borenstein 2009). Hedges' $g$ was reported given that Cohen's $d$ can tend to overestimate effect sizes when sample sizes are small (Hedges 1981).

Heterogeneity among studies was estimated with Cochran's Q statistic, where Q is the sum of squared differences between study effects on a standardised scale (Borenstein 2009). Additionally, the $I^2$ statistic was used to determine the proportion of observed variance which reflects a real difference in effect size (Borenstein 2009). Funnel plots were used to determine the risk of publication bias. Publication bias was also examined using Egger's (1997) regression intercept and Duval and Tweedie's (2000) Trim and Fill approach.

## Results

### Study Selection

A PRISMA flowchart of the study selection process is reported in Fig. 1. The initial search identified 1919 papers. Of these, 641 were removed as duplicates and a further 1255 were removed in title and abstract screening, leaving 23 studies for full-text review. Of these, four studies were selected based on the eligibility criteria. The primary author and an independent reviewer assessed all potential studies at the title and abstract screening phase. Between the two reviewers, there was a 98.8% agreement on the decision to include or exclude each abstract (i.e. 1263 agreements of 1278 abstracts reviewed) and Cohen's Kappa reflected a "substantial" level of interrater agreement ($\kappa = 0.66$; Landis and Koch 1977, p. 165). Any discrepancies that arose were resolved through deliberation, with co-raters consulting the inclusion and exclusion criteria to guide final decisions.

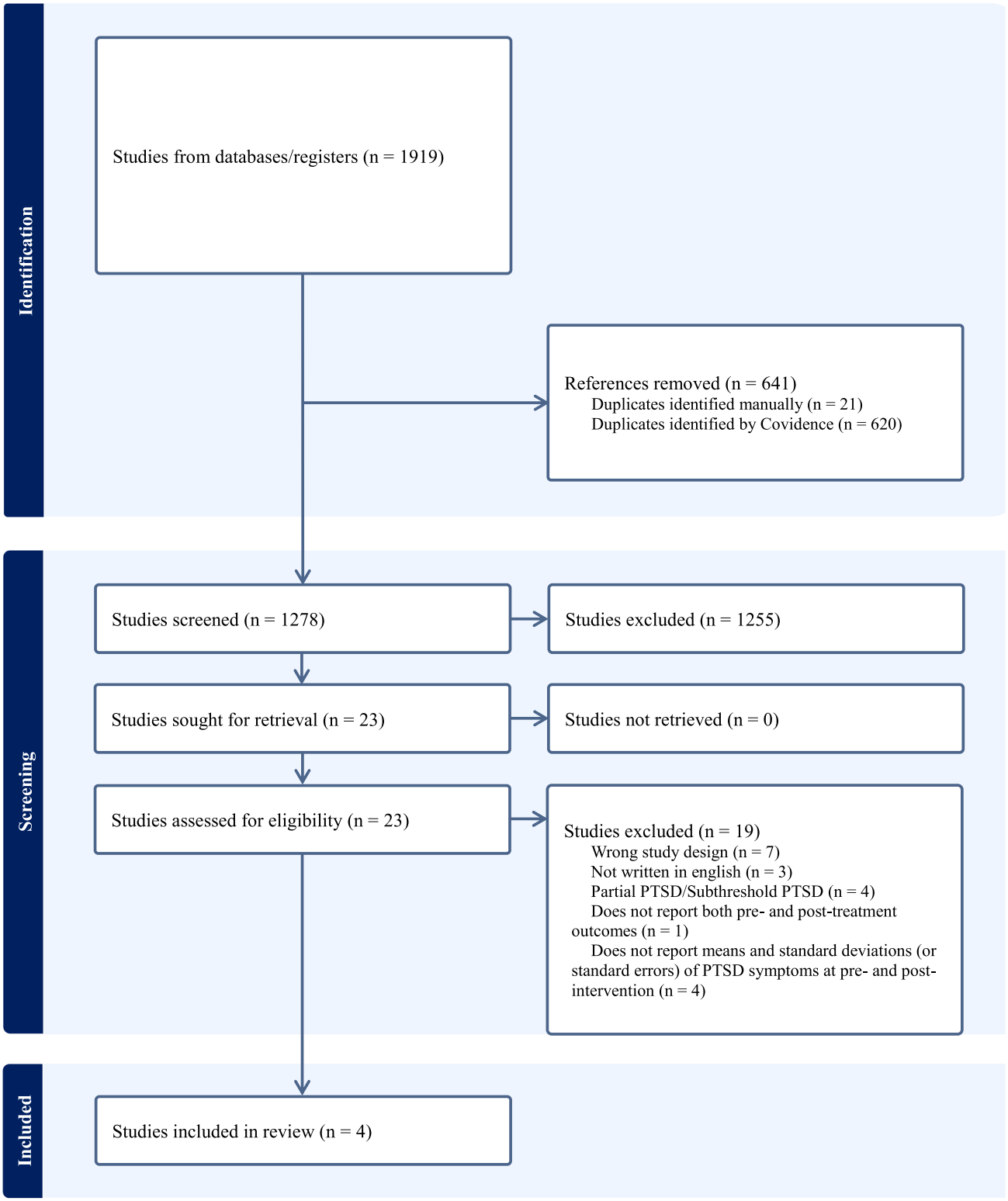


**Fig. 1** PRISMA flow diagram for databases

## Study Characteristics

Table 1 displays a summary of characteristics of the included studies. Studies were published between 2005 and 2021. Collectively, these studies presented data from 804 individuals, with sample sizes varying from 6 to 534. Of the four studies only three reported gender and among those three studies 65.8% were male. The average age ranged from 38 to 46 years old. All studies employed an observational intervention design. Thus, they provided both pre- and post-treatment data and did not utilise comparison groups.

Biggs and colleagues (2021) provided brief trauma-focused CBT, EMDR or a combination of both through individual, face-to-face sessions, totalling 9–12 h in length, with each session lasting 60–90 min.

Lansing and colleagues (2005) adapted EMDR therapy by using TheraTapper devices for bilateral stimulation in the palms and fingers. This allowed participants to reexperience traumatic scenes with their eyes closed to reduce potential distractions. Sessions were conducted individually, lasting 2–3 h each and spaced 3–4 weeks apart. The intervention included coping techniques, trauma memory logging, and support network development, followed by a reconciliation phase to rescript relational patterns.

Martinmäki et al. (2021) evaluated a multidisciplinary day clinic program for police officers with PTSD. The program included individual trauma-focused therapy (primarily EMDR or prolonged exposure), as well as sociotherapy and psychomotor therapy, which were delivered in a group format. Sociotherapy emphasised daily structure, stress management and fatigue monitoring, while psychomotor therapy focused on recognising physical stress, tension and practising relaxation techniques. Sessions were held 1 day per week over approximately nine months, with each session lasting 75 min.

Smid and colleagues (2018) used BEPP, delivered in weekly, face-to-face individual sessions of 45–60 min over approximately 16 sessions, with adjustments based on symptom severity. The intervention included psychoeducation, imaginal exposure, emotional expression, cognitive restructuring, and meaning-making, concluding with a farewell ritual.

The trauma-focused psychological therapies employed were EMDR, TF-CBT, BEPP and PE. Notably, three of the four studies utilised EMDR or EMDR combined with another psychotherapy as their treatment approach. For PTSD outcome measures, three studies utilised self-report, while the fourth employed an interview-based measure. In regards to the duration of the interventions, Smid and colleagues (2018) reported an average time of 40 weeks from pre- to post-treatment (weekly 45–60 min sessions). Additionally, the treatment program in Martinmäki and colleagues (2021) lasted approximately 39 weeks (1 day a week from 10 am to 4 pm). However, Biggs and colleagues (2021) and Lansing and colleagues (2005) did not report

**Table 1** Summary of studies

| Author (year) | Participants | Country | Type of psychotherapy | Primary PTSD outcome measure | Outcome time 1 (M and SD) | Outcome time 2 (M and SD) | Key findings |
|---|---|---|---|---|---|---|---|
| Biggs et al. (2021) | $N=162$, mean age = 42, $M=83$, and $F=79$ | UK | TF-CBT (44%) and EMDR (40%) and combined approach (16%) | IES-E | 63.62 (15.51) | 33.49 (21.18) | Brief trauma therapy resulted in statistically significant decreases in PTSD symptoms |
| Martinmäki et al. (2021) | $N=102$, mean age = 46.40, $M=76$, and $F=26$ | Netherlands | EMDR or PE | PTSD combined scale | 62.76 (15.87) | 49.77 (26.87) | EMDR and PE significantly reduced PTSD symptoms |
| Lansing et al. (2005) | $N=6$, mean age = 38.60, gender not reported | USA | EMDR | PDS | 43.20 (12.30) | 5.20 (1.90) | EMDR resulted in statistically significant decreases in symptoms of PTSD |
| Smid et al. (2018) | $N=534$, mean age = 38.10, $F=164$ and $M=370$ | Netherlands | BEPP | SI–PTSD | 10.03 (2.70) | 0.97 (1.86) | BEPP significantly reduced PTSD symptoms |

*N* sample size, *M* males, *F* females, *TF-CBT* trauma-focused cognitive behavioural therapy, *PE* prolonged exposure, *EMDR* eye movement desensitisation and reprocessing, *BEPP* brief eclectic psychotherapy for PTSD, *PTDS* Posttraumatic Stress Diagnostic Scale, *SI–PTSD* the Structured Interview for PTSD, *PTSD combined scale* Harvard Trauma Questionnaire & PTSD Checklist for DSM–5, *PDS* Foa Posttraumatic Stress Diagnostic Scale, *IES-E* Impact of Events Scale—Extended

the number of weeks or months but rather the average amount of treatment hours (10 and 10.25, respectively).

### Quality Assessment

All studies were assessed using the Quality Assessment Tool for Before-After (Pre-Post) Studies With No Control Group (National Institutes of Health, 2025; refer to Appendix C). The studies were evaluated based on whether they met specific criteria, with a score of 0 indicating "no" and 1 indicating "yes" for each respective item. In the absence of consensus and recommendations of what constitutes ratings of "good", "fair" and "poor" quality studies, we applied the following thresholds: "Good" being a sum score of 10 or greater; "Fair" a sum score of 7–10 and "Poor" a sum score of ≤ 6. All four studies were of fair quality. Overall, there was a mean score of 7.75 and a standard deviation of 0.96.

### Random Effects Meta-Analysis

The pooled within-subjects random effects effect size estimate (Hedges' g) across the four included studies was 1.81 (95% CI, 0.34 to 3.28), with individual effect sizes ranging from a medium-size (0.57 for Martinmäki et al. 2021) to large-size (3.40 for Smid et al. 2018), indicating decreases in PTSD symptoms for participants from pre- to post-treatment. Thus, the pooled effect size was large. However, there was a large range of uncertainty regarding the size of the effect. Figure 2 reports a forest plot of the analysis.

The Q-statistic was significant ($Q = 485.75$, $df = 3$, $p < 0.001$), indicating the presence of heterogeneity among studies and variation among studies in the magnitude of effect. Other indices also indicated a high degree of heterogeneity, with $\tau^2 = 2.22$ and a large proportion of true to sampling error–related variance ($I^2 = 99.38$).

A funnel plot of the included studies is reported in Fig. 3. All four studies fell outside the range of expected symmetry, with three of the four located to the left of the mean. However, Egger's regression intercept did not suggest statistically significant asymmetry ($p = 0.345$). Thus, the small number of included studies precluded any moderator or meta-regression analyses which could have identified sample and study characteristics predictive of the effect size.

### Sensitivity Analysis

The analysis was repeated for Martinmäki and colleagues (2021) and Smid and colleagues (2018) who had utilised a structured or semi-structured diagnostic interview to confirm that all included participants met the criteria for PTSD. Figure 4 reports a forest plot of the analysis where the pooled random effects effect size estimate (Hedges' g) across the two studies was 1.99 (95% CI, − 0.78 to 4.75).

## Discussion

Police officers are frequently exposed to potentially traumatic events and report high rates of PTSD (Biggs et al. 2021). Thus, understanding the efficacy of treatment for police with PTSD is essential. There are individual studies suggesting that trauma-focused psychotherapies are effective in reducing PTSD symptoms in police (Biggs et al. 2021; Lansing et al. 2005; Martinmäki et al. 2021; Smid et al. 2018). However, it is unknown what the *magnitude* of improvements are. Thus, we sought to synthesise the literature and determine the extent to which trauma-focused psychological therapies are effective for police officers with PTSD.

Only four studies met our inclusion criteria. This can be attributed to the insufficient reporting of treatment outcomes, suboptimal study designs (e.g. case studies and case series) as well as a lack of specificity in the literature in reporting outcomes for police in particular. Our focus on the outcomes for police offices resulted in the exclusion of numerous studies which reported results among mixed samples of emergency responders. This approach obscures the unique stressors and occupational demands that police officers experience. In their line of duty, police personnel often experience traumatic events which are relatively unique

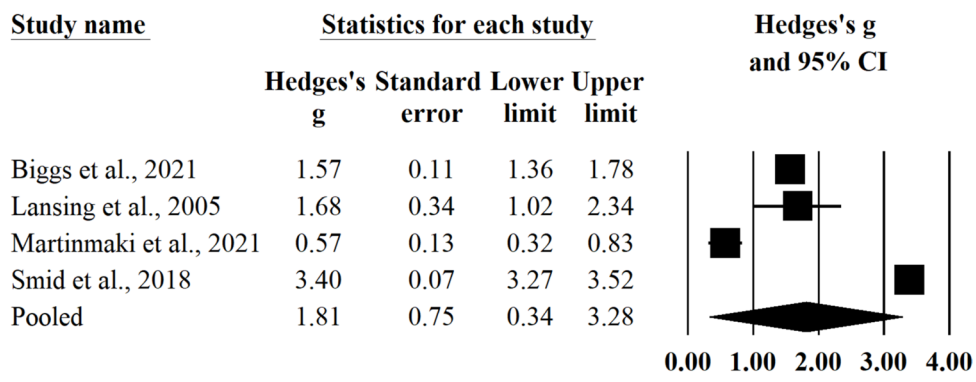


**Fig. 2** Forest plot of studies

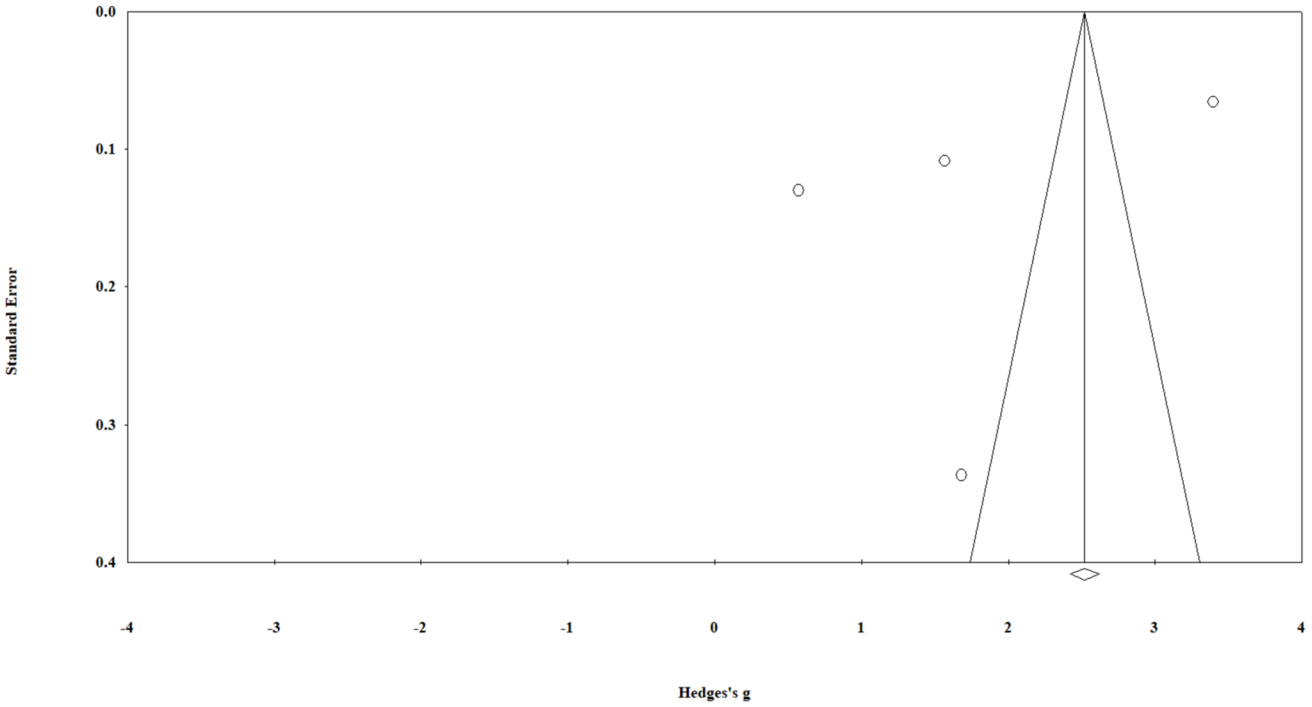


**Fig. 3** Funnel plot of studies

**Fig. 4** Forest plot for sensitivity check

| Study name | Hedges's g | Standard error | Lower limit | Upper limit |
|---|---|---|---|---|
| Martinmaki et al., 2021 | 0.57 | 0.13 | 0.32 | 0.83 |
| Smid et al., 2018 | 3.40 | 0.07 | 3.27 | 3.52 |
| Pooled | 1.99 | 1.41 | -0.78 | 4.75 |

Statistics for each study

Hedges's g and 95% CI

-6.00 -3.00 0.00 3.00 6.00

from other first responders (e.g. paramedics and firefighters; Arble et al. 2018). This includes criminal activities and direct personal threats such as assaults and shootings. This routine exposure to violence, crime scenes and traumatic events can result in distinct psychological and emotional responses (Arble et al. 2018). Our results therefore inform police agencies and clinicians regarding the specific traumas and adjustment difficulties experienced by police.

Among the included studies, the overall effect size was large, suggesting that trauma-focused psychotherapy may substantially reduce PTSD symptoms for police officers. Nonetheless, there appeared to be a substantial range of uncertainty regarding the estimated effect size, as evidenced by the wide confidence interval. Additional studies will be needed to arrive at a more precise estimate of the effects of trauma-focused psychotherapy.

Application of the quality assessment tool suggested that each included study was rated "fair" so far as risk of bias is concerned. This is because three of the four included studies relied on only one PTSD outcome measure and only one study reported the number lost to follow-up (i.e. at the posttreatment assessment).

The small number of included studies precluded a statistical identification of the potential predictors of effect size. It is noteworthy that Smid and colleagues (2018) reported a greater effect size than the other studies. Although speculative, one potential reason for this, could be that only 67% of the Smid et al. sample met criteria for PTSD, in contrast to the other studies for which all participants met diagnostic criteria. Perhaps participants in the Smid et al. study who were sub-clinical were better placed to respond

to psychological therapy, in contrast to participants of the other studies who may have had relatively entrenched PTSD.

The Smid and colleagues (2018) study also differed from the other included studies in that they used BEPP rather than EMDR. Although speculative, this may have contributed to the larger effect size due to unique therapeutic elements of BEPP. Smid and colleagues (2018) found that the meaning-making phase and farewell ritual in BEPP were significantly linked to improved treatment outcomes. This is further supported by Gersons and colleagues (2000) who found that BEPP showed significant improvements in PTSD symptomatology among police when compared to a control group. Furthermore, although research has demonstrated that all trauma-focused therapies deliver similar outcomes (e.g. Jericho et al. 2021), there may still have been variation from one therapy modality type to another (e.g. BEPP to EMDR), which may have accounted for some of the heterogeneity.

Comparatively, Martinmäki and colleagues (2021) reported the smallest effect size. This may be due to the inclusion of a treatment-resistant sample, as participants had not benefited from previous trauma-focused therapies. In line with this, the therapy intervention reported by Martinmäki et al. was of approximately nine month's duration and considerably longer than that of the other three included studies—perhaps because participants' symptoms were taking a long time to address. Alternatively, the group format of the intervention in the Martinmäki et al. study may also have contributed to less favourable outcomes than for the other studies given that trauma-focused therapy so often needs to be carefully tailored to the particular experiences of the individual. There were several limitations of the studies included in the review. Only Martinmäki et al. (2021) reported the rate of therapy discontinuation, or at least, the proportion of the sample that completed both pre- and post-treatment questionnaires, precluding any consideration of treatment acceptability. There was a pattern of insufficient reporting in crucial areas. This includes a lack of information provided regarding the gender of the participants (Lansing et al. 2005) as well as treatment duration (e.g. in weeks or months; Biggs et al. 2021; Lansing et al. 2005). It also was not always clear whether participants are current or former police officers, which is essential for understanding the mental health needs arising from ongoing occupational stressors and those persisting post-retirement. Additionally, the quality of the reporting in the included papers did not allow the review to confirm whether participants' lifetime "dose" of trauma was associated with treatment outcomes, as few studies reported the total number of lifetime potential traumas in participants.

Although all studies required a confirmed PTSD diagnosis, there is unclear or incomplete reporting regarding how the diagnosis was established (e.g. Biggs et al. 2021) and whether it remained. Nonetheless, a sensitivity analysis of studies which included a structured or semi-structured diagnostic interview (Martinmäki et al. 2021; Smid et al. 2018), showed that the overall magnitude of effect was similar. Hence, while the review was able to determine the extent of improvement, limitations in the reporting practices precluded us from determining the proportion of officers who attained diagnosis-free status by the end of treatment. Reporting this outcome is vital as it may hold particular relevance for police forces in determining an officer's capacity to return to work.

There is also a lack of randomised controlled trials in this area. The studies included the current review did not conduct comparisons against a wait-list control or an active comparator. This limits the studies' abilities to establish causal relationships and determine the specific effects of psychological treatments (Theofanidis and Fountouki 2018). Additionally, the long-term outcomes of therapy were typically not assessed or whether there was relapse or recurrence of symptoms after an extended period (Ross and Bibler Zaidi 2019). Also, there was limited range of diversity in participant samples and a majority of papers focused on male police personnel from Caucasian-predominant countries. Overall, due to the dearth of studies included in the review, inferences cannot be made about variables such as gender, age, length of service, type of trauma exposure and number of traumas. Finally, the included studies did not directly compare the outcomes of these interventions for police officers against non-police officers receiving similar treatments, precluding any consideration of whether police officers have less favourable outcomes than others with PTSD.

Despite these limitations in the literature, the present review adhered to PRISMA guidelines, utilised a structured search strategy and employed an independent reviewer of abstract screening. However, direct contact with authors in the field and a search of clinical trial registries were not conducted to identify potential additional studies. We may have therefore overlooked outcome studies whose results reside in reports within police agencies rather than being published in peer-reviewed journals. However, the inclusion of studies from peer-reviewed journals helped to ensure that all included studies are at an acceptable methodological standard.

To refine and optimise trauma-focused psychotherapy for this population, future research should investigate the specific mechanisms (cognitive, emotional and behavioural processes) that contribute to its success (Craddock and Telesco 2022). Strategies to improve treatment implementation and accessibility should also be examined. This involves assessing the efficacy of different delivery formats (e.g. telehealth, in person) and encouraging organisational level interventions that endorse mental health support within police departments (Jericho et al. 2021). Additionally, research should investigate barriers for treatment engagement, retention and completion, while identifying ways to enhance

treatment adherence and decrease drop-out rates (Wagner et al. 2020). Ideally, future research would investigate treatments that act as preventative measures for police officers developing PTSD, contributing to less burnout, longer service, and reduced costs.

This is the first review to systematically investigate studies of trauma-focused psychotherapies in treating PTSD symptoms in police. It highlights a major gap in the existing literature that needs to be addressed to develop our understanding and improve the quality of care provided to police personnel with PTSD. However, despite the limited number of studies and uncertainty in effect size estimates, the overall large effect size indicates that trauma-focused therapies hold considerable promise for police with PTSD.

**Supplementary Information** The online version contains supplementary material available at https://doi.org/10.1007/s11896-025-09730-0.

**Funding** Open Access funding enabled and organized by CAUL and its Member Institutions.

**Data Availability** The data reported in this paper are available from the authors upon request.

## Declarations

**Ethical Approval** This article does not contain any studies with human participants or animals performed by any of the authors.

**Conflict of Interest** The authors declare no competing interests.



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