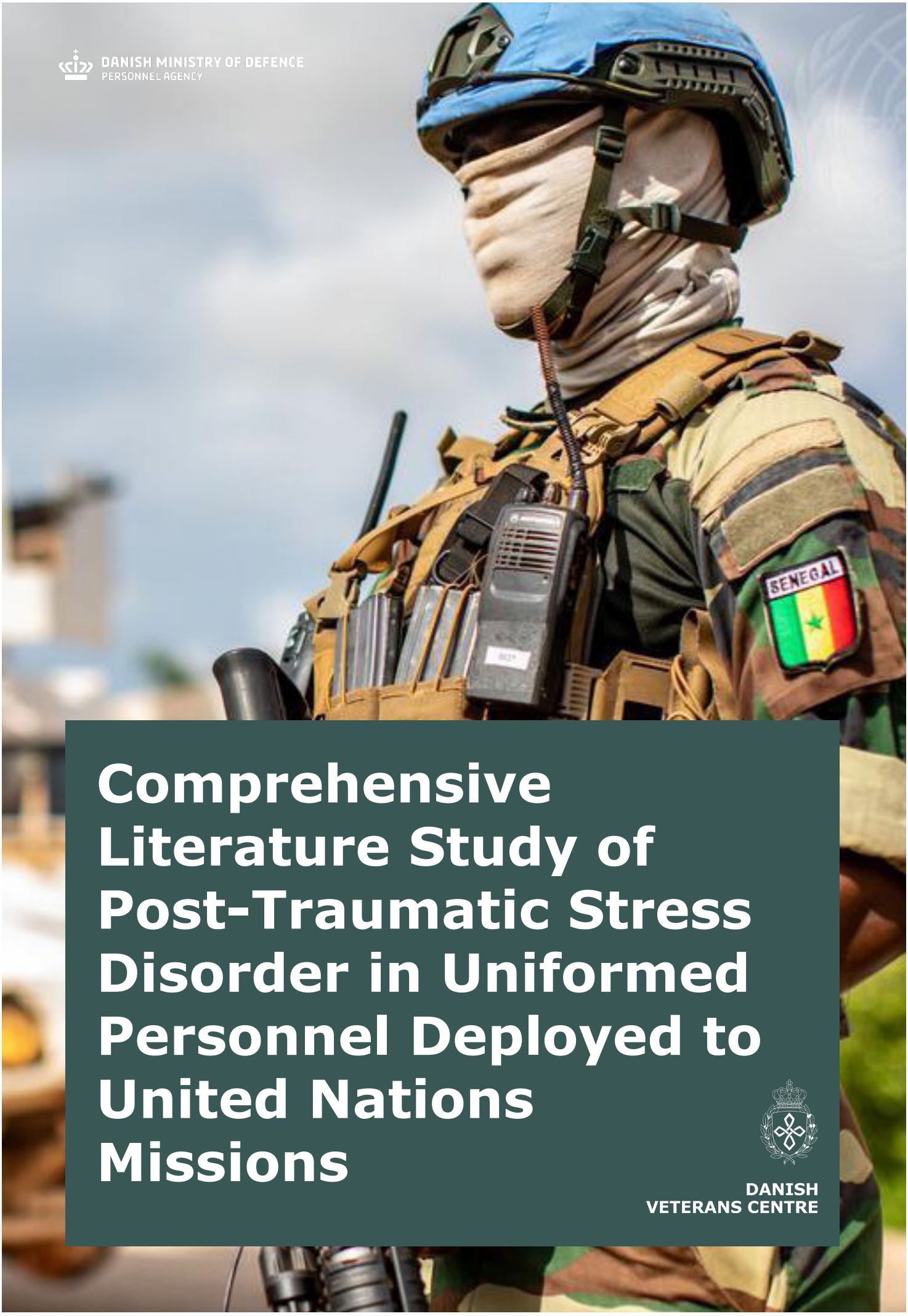

DANISH MINISTRY OF DEFENCE
PERSONNEL AGENCY

Comprehensive Literature Study of Post-Traumatic Stress Disorder in Uniformed Personnel Deployed to United Nations Missions

DANISH
VETERANS CENTRE

Comprehensive Literature of Post-Traumatic Stress Disorder in Uniformed Personnel Deployed to United Nations Missions

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Content

1. Introduction

The present report is elaborated by the Danish Veterans Centre's Research and Knowledge Centre which forms part of the Danish Ministry of Defence Personnel Agency. The Research and Knowledge Centre produces and publishes knowledge and research about the mental health, social conditions, and general well-being of veterans.

The report is the result of a comprehensive study carried out from 2019 to 2021 by the Danish Veterans Centre's Research and Knowledge Centre. The overall objective of the study was to examine the knowledge of the complex and comprehensive field of Post-Traumatic Stress Disorder (PTSD) in relation to uniformed personnel deployed to a United Nations peace operation by doing a literature study.

The literature study generated new knowledge in the search for answers to the following four objectives:

- What is the **probability of developing PTSD** for uniformed personnel following deployment in a UN operation?
- What is the **average duration** from repatriation to recognition of PTSD?
- Which **best practices for prevention of PTSD** in uniformed personnel deployed to a UN peace operation can be identified?
- Which **best practices for mitigation of PTSD** in uniformed personnel deployed to a UN peace operation can be identified?

Since more and more women deploy in both international UN and NATO lead operations - and it is a strategy for UN strategy and also the Danish Defence to recruit more women - we also had a special focus on whether the four objectives also examined how it is for women i.e. are there any gender differences? See Appendix 1 for more information about United Nations gender strategy and number of women deployed to a UN peace operation.

1.1. What is Post-Traumatic Stress Disorder

Post-Traumatic Stress Disorder arises following exposure to a traumatic event and is characterized by symptoms of re-experiencing, avoidance, negative alterations in cognition and mood, and hyperarousal[1]. The expression of specific symptoms varies greatly across individuals and may appear soon after the traumatic event or months or even years later[2]. PTSD is often accompanied by other diagnoses and diseases such as depression and anxiety and is related to increased risk of heart diseases and other physical health problems[3]. Hence, PTSD has severe consequences for the daily life not only of the uniformed person experiencing PTSD but the entire family, colleagues, friends and other relatives.

[1] American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders (DSM-5®) (5th ed.). Washington, D.C.: American Psychiatric Publishing. https://doi.org/10.1176/appi.books.9780890425596.744053.

[2] Horesh, D., Solomon, Z., Zerach, G., & Ein-Dor, T. (2011). Delayed-onset PTSD among war veterans: the role of life events throughout the life cycle. Social psychiatry and psychiatric epidemiology, 46(9), 863–70. http://www.ncbi.nlm.nih.gov/pubmed/20582726. Accessed 27 September 2013, and Utzon-Frank, N., Breinegaard, N., Bertelsen, M., Borritz, M., Eller, N. H., Nordentoft, M., et al. (2014). Occurrence of delayed-onset post-traumatic stress disorder: a systematic review and meta-analysis of prospective studies. Scandinavian journal of work, environment & health, 40(3), 215–29. https://doi.org/10.5271/sjweh.3420

[3] Edmondson, D., & von Känel, R. (2017, April). Post-traumatic stress disorder and cardiovascular disease. The Lancet Psychiatry. Elsevier Ltd. https://doi.org/10.1016/S2215-0366(16)30377-7; Pacella, M. L., Hruska, B., & Delahanty, D. L. (2013, January). The physical health consequences of PTSD and PTSD symptoms: A meta-analytic review. Journal of Anxiety Disorders. Pergamon. https://doi.org/10.1016/j.janxdis.2012.08.004 ; and World Health Organization. (2016). ICD-10 Version: 2016. https://icd.who.int/browse10/2016/en#/F43.1.

Within the UN, PTSD is a recognized disability. The UN 'Medical Support for United Nations Missions' manual[4] details four types of stress reactions, PTSD being one of them: 'Post-traumatic stress disorder: This refers to the persistence of symptoms arising from an episode of traumatic stress, which continues to disturb the individual and prevents him/her from returning to a normal lifestyle'[5].

1.2. Report and literature study

We answered the above four objectives by doing a scientific literature study. In compliance with the focus on gender in recruitment of military personnel, the study integrated a gender perspective. The first section of the present report presents the literature study and then follows gender perspectives in a separate chapter prior to a final chapter with conclusions and perspectives.

[4] Medical Support for United Nations Missions. Third Edition, 2015. http://dag.un.org/handle/11176/387299
[5] Medical Support for United Nations Missions. p. 103.

2. Literature Study

2.1. Introduction: Literature study methodology

To identify existing knowledge about prevalence of PTSD and national frames of recognition, prevention and mitigation of PTSD related to UN peace operations more broadly, a scientific literature study was conducted. It covered the period from 1990 to March 2021 and was performed in the databases Scopus, PsycINFO, PubMed, and Cochrane Library by research librarians from the Royal Danish Defence College.
Only literature with English title and/or abstract was identified. Furthermore, grey literature was searched for (e.g. governmental and NGO papers, reports from military institutions). The database searches did not allow for identification of conference proceedings and unpublished/internal material and, consequently, this type of literature is not included in the analysis.

Broad key-word searches were carried out to capture all existing scientific reporting. Searches were performed for military first and then for police. Furthermore, where possible, searches were also carried out for the general population or populations similar to the populations of interest. The study included a gender perspective where possible.

The preferred study types were cohort studies (prospective studies), cross-sectional studies, meta-analysis, systematic reviews or registry studies with a matched comparison group.

The research librarians documented the search strategy for each database and delivered the results of the searches in an Excel-file with indication of number of records identified in the different databases, date of search, and total records without doublets. All identified records were transferred to a reference management software so the researchers could see and evaluate the identified literature.

More than 1,400 articles, books and reports relating to PTSD were identified from multiple scientific databases and other sources.

Appendix 1 presents an overview of all the searches carried out as part of the study.

Selection process

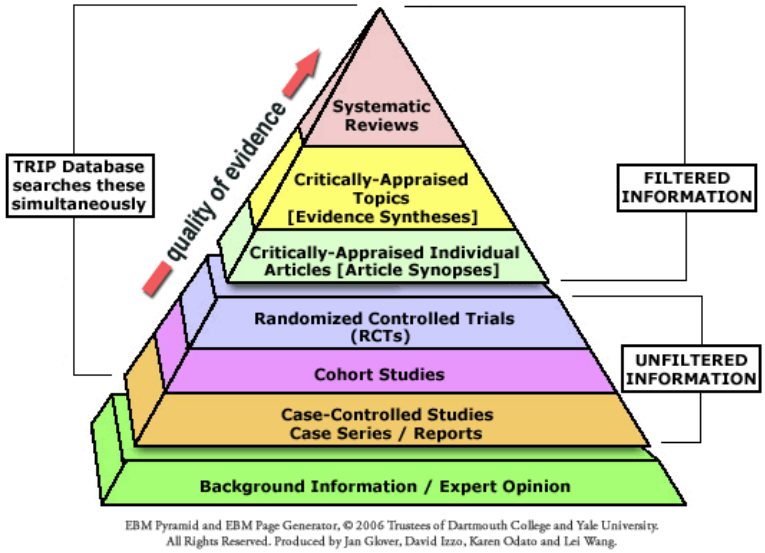
The identified literature records were initially screened by two researchers independently to identify studies for full-text assessment on abstract and title level. Abstracts not available in languages spoken by the review team (English, Danish, Swedish, Norwegian, or German) were translated using Google Translate with backward translation in order to verify the original abstract.

If the researchers disagreed about the relevance of a specific study, they discussed the pros and cons. If no conclusion was reached, a third researcher was consulted in order to decide whether the study would be relevant for full-text assessment. Reasons for exclusion of full-text material after review were documented separately for each working question.

The eligible studies were critically appraised by using the Joanna Briggs Institute critical appraisal tools (Joanna Briggs Institute n.d.).

If an existing systematic review, meta-analysis, or study was found scientifically acceptable and relevant, the review was included in forming the answers to the questions since these kind of studies represent a higher quality of evidence, as demonstrated in figure 1.

Figure 1. Evidence Based Medicine Pyramid (Glover et al. 2006).



A PRISMA flow diagram (Liberati et al. 2009) was produced for each working question to document the process of the selected full-text material.

As a point of departure, the study does not include data that mix NATO or national missions with UN missions, as this blurs the possibility to evaluate the UN premises and frameworks for the development of PTSD. Furthermore, this study argues that knowledge from a NATO context cannot be transferred to the UN context because of differences in mission mandate, set up, leadership, type of deployment etc. Only studies that report on missions separately were selected for further evaluation as it would not be possible to see if the data mainly come from High or Low Risk Missions, which has an impact for the risk of PTSD and consequently the prevalence rate.

For the objective of 'Best practice for mitigation of PTSD' no literature was identified that reflected these criteria. For this reason, the focus was broadened to include knowledge and literature about occupational PTSD and general knowledge about PTSD.

Appendix 2 provides flow diagrams for all objectives and describes when in the screening process articles were in- or excluded, the number of articles during the process, and the final number of articles accepted for inclusion.

Overall results of literature search
In general, the research librarians found few records examining UN uniformed personnel. Only few records included information about police personnel deployed in a UN peacekeeping mission, but also records on military personnel deployed on a UN peacekeeping mission were scarce.
In general, the literature that included UN uniformed personnel originated from the UN group 'Western European and Other States'. Only few records mentioned a gender perspective.

2.2. Objective 1: Probability of developing PTSD

The following chapter presents the findings of the literature study 'Probability of developing PTSD for uniformed personnel deployed to a UN peace operation' as part of the overall study.

The scientific literature search identified no studies reporting on PTSD probability among **police** following deployment for UN peace operations. Therefore, the following will only address findings among **military** personnel deployed for UN peace operations. The findings concern probability of PTSD after repatriation, and possible limitations of the scientific literature search. Appendix 1 presents search terms, and appendix 2 provides flow diagrams of in- and excluded material.

Examination of the probability of PTSD after repatriation, understood as the prevalence of PTSD measured by a validated instrument indicating PTSD, has not been reported by many Troops- and Police Contributing Countries to United Nations (UN) peace operations. The literature search revealed that it is mainly research from member states from the 'Western Europe and others' region such as the US, Norway, the Netherlands, Australia, and from Brazil. The research generally reports prevalence of probable PTSD[6] from UN peace operations in the 1990s and mid-2000s as also stated in a recent report by the International Peace Institute (Di Razza, 2020).

According to the limited literature, the prevalence of PTSD among military uniformed personnel after repatriation varies from 0 % up to 11 %. Several factors may impact the probability of PTSD after repatriation such as time of measurement, measurement method, and chosen cutoff-score of PTSD, study population, type of mission, and other factors. Aspects of these factors are elaborated below.

Time of measurement
The time of measurement of PTSD in military uniformed personnel deployed to a UN peace operation varies from one Troop-contributing country to another. In a large study of 3,461 US uniformed personnel including active duty personnel, measurement took place 4-5 months and 18 months after repatriation from the UNOSOM II mission[7] (Gray et al., 2004; Litz et al., 1997). The study found that 8 % had PTSD at the first measurement. In the follow-up 18 months after repatriation, 11 % presented with PTSD.
A study of Norwegian military uniformed personnel deployed to the UNIFIL mission found that 5 % had PTSD approximately 6.6 years after repatriation. In a later very large cross-sectional study of 10,605

[6] Prevalence of probable PTSD means that it is likely that PTSD is present even though it has not been diagnosed by a doctor yet. The prevalence of probable PTSD could be based on measurement with a validated PTSD scale, i.e. a PTSD scale that has been verified against data from a structured clinical interview for the diagnoses of psychiatric patients according to The Diagnostic and Statistical Manual of Mental Disorders (DSM) or The International Statistical Classification of Diseases and Related Health Problems (ICD) criteria or data provided by hospital records/military databases (stating the diagnosis of PTSD via DSM or ICD).
[7] The mission name was not mentioned in the scientific paper, however due to the data collection period it seems to be UNOSOM II. UNOSOM II was a High Risk Mission. It should be noted that UNIFIL is not included as a High-Risk Mission (Cruz et al., 2017) but the study importantly concludes that uniformed personnel for this UN peace operation were frequently exposed to a range of potential stressors that may impact their mental health.

formerly Norwegian military uniformed personnel deployed to the UNIFIL and examined 18-38 years after repatriation, the probability of PTSD was 6.2 % (Gjerstad et al., 2020; Mehlum & Weisaeth, 2002).

Measurement method and threshold

Most of the identified studies on UN military uniformed personnel use either the military or the civilian version of 'The PTSD Symptom Checklist' (Gjerstad et al., 2020; Mehlum & Weisaeth, 2002; Orme & Kehoe, 2014; Souza et al., 2008; Waller et al., 2012) alone or in combination with 'The Mississippi Scale for Combat-Related Posttraumatic Stress Disorder' (Bolton et al., 2006; Gray et al., 2004; Litz et al., 1997). 'The Self-rating Inventory for PTSD' was only used in the Dutch studies (Bramsen et al., 2000; Dirkzwager et al., 2005) and 'The Posttraumatic Symptom Scale' was used in one study (Mehlum & Weisaeth, 2002). The thresholds applied on these instruments varied from using a cutoff-score of 44, 50 to 68 on 'The PTSD Symptom Checklist' or by fulfilling the cluster criteria of PTSD as stated by 'The Diagnostic and Statistical Manual of Mental Disorders' (DSM). Some studies used more than one threshold, which made it possible to compare the probability of PTSD found in other studies.

Critical approach to the study population

The study population may have an impact on the reported probability of PTSD. Important factors are: who were invited and how large a proportion of those who were invited did actually participate in the study. The probability of PTSD may e.g. be slightly lower if only active duty personnel are included instead of both active duty personnel and ex-serving personnel since ex-serving personnel also include early repatriation due to mental and physical problems during the UN peace operation.

However, all studies suffered from a lack of 100 percent representativeness of the invited participants; the response rate varied from 42 % to 74 %. The studies that had the possibility to examine whether participants and non-participants differed found in general that non-participants were younger and privates. These factors have in some studies shown to be related to a higher risk of having PTSD after repatriation (Mehlum & Weisaeth, 2002). The latter indicates that the probability of PTSD after repatriation might be even higher than the rates presented above.

Type of mission

Differences in the probability of PTSD are likely to reflect different trauma exposure levels during deployment. High Risk Missions[8] may be more likely to lead to a higher probability of PTSD after repatriation (Bolton et al., 2006; Bramsen et al., 2000; Dirkzwager et al., 2005; Gray et al., 2004; Litz et al., 1997) than missions that are not High Risk Missions (Dirkzwager et al., 2005; Gjerstad et al., 2020; Mehlum & Weisaeth, 2002; Orme & Kehoe, 2014; Souza et al., 2008; Waller et al., 2012).

Other factors related to PTSD

A review of scientific literature which also includes NATO uniformed military personnel found that low level of social support peri- and post-deployment, low organizational support, personality factors, and previous trauma experience, or poor mental health may increase the probability of PTSD after repatriation (Sareen et al., 2010). Furthermore, a negative affective state (disturbance of moods, feelings, and attitudes) may impact the vulnerability of uniformed personnel and their susceptibility of stressful situations.

[8] High Risk Missions are defined in the report directed by the Secretary-General of the United Nations 'Improving Security of United Nations Peacekeepers. We need to change the way we are doing business' from 2017 (Cruz et al.) as missions from the 1960s to present day with a significant peak in fatalities.

A longitudinal study of over five-hundred Dutch male military uniformed personnel deployed to the UNPROFOR found that personality factors, i.e., psychopathology and negativism measured pre-deployment, was the second best predictor of severity of PTSD measured 1-3 years after repatriation. The most influential factor was the amount of stressors experienced during the mission (Bramsen et al., 2000).

Another longitudinal study of 138 Brazilian military uniformed personnel deployed to the MINUSTAH also found that the number of stressful situations occurring during the mission was the most influential factor of severity of PTSD 6 months after repatriation although negative affect experienced before deployment also predicted the severity (Souza et al., 2008).

An examination of Australian UN military uniformed personnel approximately 8 years after deployment to the UNTAET/ UNMISET found that an increased number of work frustration factors, such as leadership, military hierarchy, deployment rules and regulations during the deployment increased the risk for developing PTSD as compared to no experienced work frustration (Waller et al., 2012). A similar outcome characterizes the study of US military uniformed personnel deployed to the UNOSOM II. Work frustration factors (such as rules of engagement restrictions) and generic military service rewards with less focus on group cohesion was influential on the severity of PTSD besides exposure to war zone stressors (Litz et al., 1997).

The cross-sectional study of Norwegian uniformed personnel deployed to UNIFIL following up on an average of 6.6 years after repatriation found that meaninglessness concerning the military mission and stressful life-events after repatriation, besides trauma experience itself, were related to the severity of PTSD symptoms (Mehlum & Weisaeth, 2002). In a later large cross-sectional study 18-38 years after repatriation the probability of PTSD was still impacted by post-deployment stressors, e.g. serious illness, unemployment, accidents after repatriation, as well as trauma exposure during the deployment (Gjerstad et al., 2020). It is important to notice the findings from this study as it indicates that PTSD could also reflect post-deployment stressors. This underscores the relevance of an objective confirmation that the PTSD stems from a possible trauma-exposure / traumatic event during deployment to a UN peace operation.

2.3. Objective 2: Average duration from repatriation to recognition of PTSD

It is difficult to give a precise estimate of time of recognition of PTSD after repatriation from a UN peace operation since this would call for a close repetitive, prospective longitudinal symptom monitoring. However, based on results from few prospective longitudinal studies of uniformed personnel deployed to UN peace operations, it is likely that the point of time of recognition of PTSD after repatriation may occur more than six months after repatriation.

Like other first responders such as police, rescue workers, and firefighters, military uniformed personnel exposed to potentially traumatic experiences during their military deployment are in general more likely to develop signs of PTSD only more than six months after a traumatic event has occurred as compared to civilians exposed to a traumatic event. A systematic review and meta-analysis[9] found that 38.7 % of formerly deployed military personnel (Non-UN peace operations) with PTSD only showed signs of PTSD more than six months after potentially traumatic experience during military deployment (Utzon-Frank et al., 2014).

In a prospective longitudinal study of US uniformed personnel deployed to UNOSOM II in the 1990s, a follow-up was performed 4-5 months and 18 months after repatriation (Gray et al., 2004). This shows that 6.5 % had probable PTSD only 18 months after repatriation, i.e. not 4-5 months after repatriation, and 2 % were remitters, i.e. they had symptoms of PTSD at 4-5 months but not 18 months after repatriation. The majority did not change category: 87 % showed no signs of PTSD and 4.5 % had PTSD at both moments of

[9] A meta-analysis is a statistical analysis that re-analyses results from multiple scientific studies in order to get a pooled estimate/result that may be closer to the truth.

test. Further analyses showed that having PTSD only at 18 months after repatriation was related to experience of large war-like stressor exposure and less positive perceptions of the particular UN peace operation. It would be relevant to identify the high level of stressors at all missions including High Risk Missions.

2.4. Objective 3: Identification of best practices for prevention of PTSD

The following chapter presents the findings of the literature study concerning literature about 'Best practices for prevention of PTSD in uniformed personnel deployed to a UN peace operation'. Search terms used for the database searches for literature are listed in appendix 1, and flow diagrams for the selection of literature are listed in appendix 2. For an outset, it was found necessary to clarify the boundary between prevention and mitigation defined in the present study.

Borderline between prevention and mitigation applied in the study

The blue line in the table 1 below shows where the boundary between prevention and mitigation is defined in this report: approaches above the blue line are considered prevention and described in Part 1 of this report, while those beneath are considered mitigation or treatment and described in Part 2 of this report even if it could be regarded as prevention according to the definition discussed in the following section, 'Classification of prevention'.

Table 1. General approaches for prevention of PTSD.

Phase of prevention	Phase of deployment	Trauma exposure	Symptoms of PTSD	Type of prevention approach
Universal (Primary)	Before	No	No	• Screening (selection) • Stress management education • Resilience enhancement programs
Selective (Secondary)	During	Yes	No/possible	• Single-session intervention (group/individual debriefing/psychoeducation)
Selective (Secondary)	After	Yes	Possible	• Approaches based on cognitive behavioral therapy (CBT) • Early pharmacological interventions
Indicated (Tertiary)	After	Yes	Yes	• Early treatment interventions (CBT) • Early pharmacological interventions

Classification of prevention

The classification of prevention used in this report is in line with Howlett and Stein (Howlett & Stein, 2016) and is based on the Institute of Medicine's guidelines for prevention and treatment of PTSD in military and veteran populations (Institute of Medicine, 2012) and International Society for Traumatic Stress Studies' (ISTSS) guidelines for adult prevention and early treatment of PTSD (International Society for Traumatic Stress Studies, 2021). Prevention is classified in three phases:

1. Universal or primary interventions are applied to an entire population before a traumatic event and regardless of the potential for exposure.
2. Selective or secondary interventions are applied to individuals who are known to have been exposed to a traumatic event and thus to be at risk of PTSD and who may or may not be showing symptoms of stress.
3. Indicated or tertiary interventions are aimed at individuals who are displaying symptoms of or have received a diagnosis of PTSD with the goals of preventing worsening of the symptoms and improving physical and mental functioning.

Studies of preventive approaches in the frame of UN peace operations reported in scientific journals

The scientific literature search revealed four articles describing preventive measures in the frame of UN peace operations, among which only two papers reported a controlled study conducted in a military population.

The effect of psychological debriefing[10] has been examined in a small study among 106 British soldiers returning from UN peacekeeping duties in the Balkans. All soldiers received an Operational Stress Training Package prior to their deployment and a randomly selected group also received a post-operational psychological debriefing. Only two soldiers in the non-debriefed group and one soldier in the debriefed group had clinically significant PTSD, and no data collection took place at baseline. The study suggests that psychological debriefing may be of some benefit but by itself is inadequate and indeed may even do harm. The authors state that research is needed to identify other measures which may effectively reduce morbidity following trauma including primary preventative measures such as more careful recruit selection, realistic training, stress inoculation and operational stress training packages (Deahl et al., 2000).

In a group-randomized trial of critical incident stress debriefing (corresponding to psychological debriefing) with platoons of 952 US peacekeepers in the final phase of a mission in Kosovo, critical incident stress debriefing was compared with a stress management class and survey-only condition. For those soldiers reporting the highest degree of exposure to mission stressors, critical incident stress debriefing was minimally associated with lower reports of posttraumatic stress and aggression, and higher perceived organizational support. Soldiers reported that they liked critical incident stress debriefing more than the stress management class (Adler et al., 2008).

Another article describes how prevention was conducted in a group of Canadian peacekeepers deployed to Rwanda 1994. In the area of operations, soldiers were briefed by co-deployed mental health teams on stress and adjustment issues to assist them in developing strategies to cope with psychological crises and potential adjustment difficulties. A modified form of psychological debriefing was conducted where mental health teams entered a group dialogue with soldiers about their reactions to their experiences. It was concluded that deploying mental health professionals with troops appears to be a positive way to support operations and manage the psychological problems caused by a variety of stressors encountered by soldiers during peace operations (Rosebush, 1998).

Lessons learned after mental health interventions performed by a US Combat Stress Control (CSC) unit staffed by psychiatrists and social workers during peacekeeping missions in Somalia (1993) and Haiti (1995) were described in a fourth article. The CSC unit provided psychological debriefings as a means of prevention, but the authors also state the importance of pre-deployment screening. Some soldiers who required evacuation had a history of untreated or insufficiently treated psychiatric disorder that existed prior to deployment. It was recommended that a mental state evaluation was done by mental health providers before deployment (Hall et al., 1997). It was later shown in a group of Norwegian UN-peacekeepers that this was not feasible due to the fact that pre-deployment factors only explained 25 % of the variation in the posttraumatic symptom score (Mehlum & Weisaeth, 2002).

No studies of prevention of PTSD among police personnel deployed in UN Peace Operations were found.

[10] The concept of psychological debriefing is described in more detail further below.

Description of current preventive approaches in the frame of UN peace operations reported in non-scientific publications

The search of grey literature (e.g., governmental and NGO reports) revealed empirically based articles and reports commenting preventive measures applied or recommended in UN peace operations. The UN peacekeeping resource hub serves as a repository for all official training and guidance materials for troop/police contributing countries. The Core Pre-deployment Training Materials representing the essential knowledge required by all peacekeeping personnel to function effectively in a UN peace operation, presents a lesson on stress management, but in that material there is no mention of PTSD at all (United Nations Peacekeeping Resource Hub, 2017).

A very recent report from the International Peace Institute published in December 2020 addresses the issues in this study including prevention. The methods used in this report were collection of information from interviews mainly with mental health experts and UN staff members, seminars, reports, scientific articles and other sources. From the report it appears that UN assumes some responsibility for the mental health of personnel through screening and prevention. Medical clearance is required before deployment. The screening form for prospective employees includes questions such as "Do you have any condition which will need medical, surgical or psychological intervention or treatment within the next 12 months?" and "Do you have any physical or mental health conditions which could make it difficult for you to live and work in, or travel to, a remote area with limited access to health care facilities?" (Di Razza, 2020). The effect of these simple measures seems not to have been studied.

Other factors which protect against the development of PTSD are social support and confidence in the military mission, leadership and training (Institute of Medicine, 2012). That is why mission-focused training programs for UN forces going to deploy can be very important in preparation of UN-forces before deployment (Peace Operations Training Institute, 2009).

2.5. Objective 4: Current best practices for preventing PTSD, and effectiveness among military, police and/or general population

In this part, the evidence of the preventive approaches according to table 1 (above) will be described mainly for military personnel while there is a section describing preventive approaches for police personnel and a section describing recommendations in guidelines for the general population. Information from the evidence-based guidelines and relevant research in general population study groups will be included when relevant. The description will be based on scientific papers which are mainly summary literature, reviews, meta-analyses and/or papers with high impact and often quoted within the topic, evidence-based reports and guidelines. Not all papers used are referenced in the text, but a thorough reference list can be found in the supplementary to this report.

Screening

In the military, many attempts have been made to screen and identify those at risk of developing an adverse outcome. Since the aftermath of the first World War there has been an ongoing discussion of the benefits of screening for mental health vulnerability (E. Jones et al., 2003). We are aware of only one study of high quality that systematically assessed the effectiveness of pre-deployment screening on post-deployment mental morbidity. In this UK study, psychological symptom scales with thresholds designed to indicate distress were used to detect common mental disorders including PTSD. The aim was to predict subsequent disorders 2 to 3 years after deployment. The results showed that there was no difference in PTSD and other mental health disorders between those responding to the screening questionnaire and those not responding. The authors concluded that screening for mental disorders before deployment to Iraq would not have

reduced subsequent morbidity, but they did not rule out the possibility that screening could be beneficial if the prevalence of deployment-related mental health conditions were higher (Rona et al., 2006).

In another study, a screening process with a combination of self-administered questions and a face-to-face evaluation by a mental health provider trained to administer screenings was associated with decreased need for clinical care for combat stress, psychiatric and behavioral disorders including PTSD during deployments. Post-deployment effects were not assessed in this study (Warner et al., 2011).

The effectiveness of post-deployment screening using questionnaires with follow-up assessment 10-24 months after has recently been studied in a large randomized controlled trial. At follow-up there were no significant difference between the screening group and the control group in the prevalence of PTSD (Rona et al., 2017). We did not find studies specifically assessing screening of police personnel; in addition, there were no relevant studies of PTSD screening of the general population (that is, in settings comparable to military deployments).

Thus, pre-deployment and early post-deployment screening have not proven to be sufficiently efficient.

Mental health training

Mental health training is also called resilience training or stress management and stress inoculation (Southwick et al., 2012) and has the potential to strengthen the ability of military personnel to respond to the psychological demands of military service including deployment in operations.

A NATO-wide survey of mental health training in army recruits from a range of countries experience significant demands during basic training. While using various coping strategies to manage these demands, they also think resilience training would be of value. It was concluded that establishing a culture of resilience skills at an early stage during the professional development of a soldier could possibly help prevent negative outcomes following deployment (Adler et al., 2013).

In recent years, a detailed concept of mental health training has been developed within NATO. As an organization, NATO has identified a need to develop scientifically validated mental health training that will sustain service members throughout their military career as well as prepare them for the rigors of military operations, including combat, and prepare them for an adjustment to returning home after deployments and when leaving the military. Examples of current mental health training programs that offer promise are the Canadian Road to Mental Readiness (R2MR) program (Department of National Defence and The Canadian Armed Forces, 2013), the US BATTLEMIND training system (now integrated into the Comprehensive Soldier and Family Fitness (CSF2) Resilience Training program) and Australia's BattleSMART model for recruit resilience training. Research of the effect of mental health training has, however, been sparse (Adler et al., 2013).

One of the best researched programs is the Canadian R2MR. The efficacy of R2MR has recently been studied in a randomized controlled group trial with Canadian Armed Forces military recruits completing their basic military qualification training. The participating 65 platoons (N = 2831) were randomized into either an intervention group or a control group. Outcomes were psychological functioning, resilience, and mental health service use, attitudes, intentions, and behaviors. It was concluded that interventions as R2MR may work under high fidelity conditions (Fernandez et al., 2019), that means when the intervention was conducted as planned, but may yield no discernable benefit or even harm participants if implemented poorly or without sufficient consideration to the larger organizational context (Fikretoglu et al., 2019).

In a randomized study, a large group of BATTLEMIND training participants reported significantly fewer posttraumatic stress symptoms and lower levels of stigma and, regardless of combat exposure, reported fewer depression symptoms compared to a control group of stress education participants (Adler et al., 2011).

In a sample of Australian Army soldiers undergoing recruit training, the efficacy of a brief cognitive behavioral program was evaluated in modifying causal attributions, expectancy of control, coping strategies and psychological adjustment (coping skills intervention). The results indicated that, compared to the control group, those who received the brief coping skills intervention reported more helpful and realistic attributions for their problems during training, showed less use of self-blame, and reported better psychological adjustment at the end of training. In mid-2009, an enhanced coping skills training program, BattleSMART, was redeveloped (Cohn & Pakenham, 2008).

In general, the actual research results demonstrate that brief early mental health training programs integrated in the military training have the potential to be effective for skills and attitudes, but we have not detected studies of pre-deployment mental health training interventions assessing the prevalence of post-deployment PTSD as outcome.

Pre-deployment psychoeducational approaches

Psychoeducational approaches have been based on the philosophy that *information* about which symptoms can be experienced after trauma may lead to better coping and perception of these symptoms as normal reactions. Education may also help facilitate help-seeking and introduce corrective action if symptoms persist. However, these assumptions are poorly supported by evidence, as documented in a recent review (Hourani et al., 2011). There have been no randomized studies of psychoeducation, but Sharpley et al. conducted a controlled study comparing a group of approximately 4,000 UK naval personnel, who received a pre-operational stress briefing, with a similar number not receiving this education. The education was delivered by a naval mental health team before the start of operations in Iraq 2003. The analysis of subsequent mental health outcomes failed to show any impact in those who received the briefing (Sharpley et al., 2008).

2.6. Pre-deployment coping skills and Stress Inoculation Training

The most widely acknowledged preventive approach in this context relevant to military-related PTSD is Stress Inoculation Training. Meichenbaum discusses three stages to SIT: Psychoeducation (learning about stress responses and the need to control them), training (learning a skill, such as arousal control, in order to mitigate the deleterious effects of stress), and implementation (utilizing these skills in the stressful context) (Meichenbaum, 2007).

A promising method of conducting pre-deployment Stress Inoculation Training is virtual reality. Wiederhold et al. carried out a study of SIT for combat medics to practice skills in a virtual world, with stressors added, before deployment to Iraq.

Preliminary results suggest that those trained in a simulation while having stressors added (being shot at while tending to a wounded) were able to perform skills more effectively in the test phase of the study compared to those trained in a neutral virtual environment (with no shooting). Those receiving Stress Inoculation Training were able to develop divided attention skills and learned to moderate physiological responses to stress while staying focused on the task at hand. Those not receiving Stress Inoculation Training were pulled off task and experienced much more physiological arousal during the test phase (being shot at), which caused mistakes to be made (Wiederhold & Wiederhold, 2008).

Virtual reality Stress Inoculation Training has also been provided to US aeromedical personnel. Preliminary findings in a study with a sample of 63 medics randomized to either treatment or control groups suggested that those who learned coping techniques during the virtual reality training exhibited lowered levels of stress than the control group (Stetz et al., 2008). In a more recent German study (Wesemann et al., 2016), the effect of a SIT variant on post-deployment PTSD was tested. The evaluation was carried out for a matched random sample of N = 67 soldiers to be deployed to Afghanistan (International Security Assistance Force). Data collection took place before and after the program and 4 to 6 weeks after deployment, including post-traumatic stress disorder (PTSD) symptoms measured by the PDS scale. The treatment group showed a significantly smaller increase in overall psychological stress and a lower level of traumatic stress on the PDS scale following deployment than the control group. However, there was no measurement of PTSD at baseline, and the absolute 'values' of PTSD measured by the PDS scale were not reported.

In general, the application of Stress Inoculation Training has some advantages. Stress Inoculation Training can be provided in group format, potentially making the training efficient and inexpensive. In small studies, Stress Inoculation Training conducted as virtual reality training has shown promising results (Hourani et al., 2011).

Mental health support during deployments

Psychological Debriefing

It is a common practice in the military of some nations to conduct group psychological debriefings for personnel exposed to potentially traumatizing events. Although there are several different types of psychological debriefings, they contain similar elements. Specific debriefing models vary in terms of number of phases, focus of discussion, and degree of structure provided to the group, but they are based on the principles of group crisis intervention specifically targeted for emergency personnel first developed by Mitchell and Dyregrov (Mitchell & Dyregrov, 1993). These interventions can be termed either as psychological debriefing or as critical incident stress debriefing. The results of studies of randomized controlled studies of psychological debriefing among peacekeepers are reported above, and the intervention is implemented as routine in some military mental health support frameworks, such as the US BATTLEMIND (Adler et al., 2009). The effect of psychological debriefing has been evaluated in both meta-analyses and reviews, but mostly in civilian populations.

A Cochrane review on psychological debriefing from 2002 (updated 2010) concluded that psychological debriefing is either equivalent to, or worse than, control or educational interventions in preventing or reducing the severity of PTSD (Rose et al., 2002). A meta-analysis consisting of studies mainly on civilian populations showed that psychological debriefing did not improve natural recovery from psychological trauma (van Emmerik et al., 2002).

Despite these conclusions, psychological debriefing is used for groups of exposed individuals in case of critical incidents not only in the military, but also in the police and civilian emergency services. The explanation of this practice could be that despite the results reported in the synthetic literature, psychological debriefings promote unit cohesion, provides social support from the military organization and can be basis for detecting those requiring further help (Arendt & Elklit, 2001). Another controversy is that some of the studies on psychological debriefing included in the Cochrane review and the meta-analysis have applied psychological debriefing in populations of victims of traumatic events such as victims of severe burns, motor vehicle accidents, and violent crime, rather than those exposed to traumatic events as part of their occupational responsibility, and conducted psychological debriefings with individuals (rather than with

intact occupational groups) (Adler et al., 2009). There is reason to believe that psychological debriefing is beneficial when provided at its intended target populations in which deployed soldiers could be included. Moreover, it is important that the intervention adheres to the prescribed time frames and components described in a procedural manual for the intervention (has a high fidelity). Therefore, more research of psychological debriefing models applied in intended occupational target populations including military is needed in order to assess its effectiveness (Tamrakar et al., 2019).

Mental health support in the field

In an Allied Medical Publication, NATO has described the general principles governing mental health support to the forward area of the theatre of operations with the aim to provide a common standard for the NATO forces and aid nations. In this publication, the minimal requirements for mental health care support in the deployed units are described. Importance of this support and command factors including good leadership in protection of mental health is stressed (North Atlantic Treaty Organization, 2019). No research of association between the structure of mental health support system in the field and the risk of post-deployment PTSD has been identified. However, in the study by Warner et al., the systematic follow-up by the mental health support system during deployment on the pre-deployment screening consultation with a mental health provider contributed to the reduced need for clinical care for PTSD and other psychiatric disorders during deployment (Warner et al., 2011).

2.7. Preventive interventions in police personnel

Most of the systematic reviews of prevention of PTSD in police personnel have been done with studies of police personnel including studies of firefighters, paramedics, and emergency staff. A recent review of interventions for the prevention and management of occupational stress injury in first responders, with the majority of studies targeting police officers (78.7 %), provides an overview of the current research. Results of the primary studies show some promising prevention strategies in police officers, specifically, resilience training programs and other health promotion strategies, including a combination of physical, mental, and emotional education. Studies of group psychological debriefing showed that this intervention significantly reduced depression, anger, stress, and alcohol consumption in some studies but no significant differences were reported in others (Antony et al., 2020).

2.8. Preventive interventions in evidence-based guidelines

The evidenced-based guidelines mentioned below conclude the following about preventive interventions:

International Society for Traumatic Stress Studies (ISTSS): ISTSS Posttraumatic Stress Disorder Prevention and Treatment Guidelines

Concerning the preventative interventions described above, the guideline concludes that there is insufficient evidence to recommend Group Debriefing, Group Education, Group Stress Management and Heart Stress Counselling (International Society for Traumatic Stress Studies, 2021).

National Institute for Health and Care Excellence (NICE): NICE guideline on Post-traumatic Stress Disorder

The guideline concludes: Evidence on psychologically-focused debriefing, either "individually" or in groups, showed no benefit for children or adults, and some suggestion of worse outcomes than having no treatment. The committee agreed that psychologically-focused debriefing should not be offered. Providing an ineffective intervention can be regarded as harmful because it means that people are being denied access to another

intervention with greater evidence of benefits (National Institute for Health and Care Excellence (Great Britain) & National Guideline Centre (Great Britain), 2018).

It must be noted that the abundant part of the evidence on which the recommendations of these guidelines are based stem from studies of different civilian populations, often very different from military or other occupational populations. Therefore, the recommendations in these guidelines should be regarded with caution and more emphasis should be put on studies of populations where traumatic events are an occupational risk.

2.9. Identification of best practices for mitigation of PTSD

The following chapter presents the findings of the literature study concerning literature about 'Best practices for mitigation of PTSD in uniformed personnel deployed to a UN peace operation'.

Literature selection process

The database searches did not identify any literature that met the criteria ('UN + PTSD'), and no studies about best practices of mitigation in a UN military or a UN police context.

Therefore, the scope was broadened out to general military studies and to other populations in general. This generated more than 1,900 studies and articles. These were screened at abstract and title level and preference was given to only Review/Meta-analyses/Synthesis. The period was limited to 2010-2020.

Clinical Practice Guidelines were included and given considerable weight in the evaluation, as they are a) based on extensive reviews of the research literature, b) combined with broad, international expert consensus (including the knowledge base in national and international clinical expert boards, such as the American VA/DOD, etc.), c) regularly updated to reflect the most current knowledge.

The selected literature was used as basis for a synthesis on the field of mitigation of PTSD conducted by three researchers with solid knowledge of PTSD in general populations.
An overview of the initial search terms is provided in annex 1, and annex 2 provides flow diagrams for the review of the initial literature.

Treatment of PTSD – the overall picture

Psychological treatments as first line treatment of PTSD in general

In the literature about general mitigation of PTSD and mitigation of military personnel, mitigation is primarily studied as *treatment* methods such as psychotherapy or pharmacotherapy. These are most often conceptualized as treatment of individuals with PTSD within clinics undertaken by trained health professionals.

It is worth noting, however, that several other approaches to mitigation exist outside the above frame of understanding. This includes mitigation methods based on e.g. spiritual practices, meditation, nature therapy, body therapy and others. They offer new ways of mitigating PTSD that demand further research as to investigate their potential. However, too little documentation or evidence of insufficient quality has currently been established as to support their more widespread use, their universal recommendation in UN settings, or to be accepted into the clinical practice guidelines of institutions such as the American VA and DoD, the British NICE, the Australian Phoenix, etc.

Within the last 30 years, a strong evidence base has been established on the effects of treatments through several hundred randomized controlled studies considered to be the golden standard when investigating and assessing interventions. Based on this evidence, a strong consensus has developed on what should be considered first line treatments, following development of PTSD, i.e. treatments that combine the best efficacy with the best safety profile. It is, however, important to remember that mitigation of PTSD is primarily developed and studied in Western cultures.

Five of the most recognized expert groups of researchers and clinicians, e.g. the American International Society for Traumatic Stress Studies (ISTSS), the British National Institute for Health and Care Excellence (NICE), the Australian National Centre of Excellence in Posttraumatic Mental Health (Phoenix), the American Psychological Association (APA), and the Department of Veteran Affairs & the US Department of Defense (VA/DOD), recommend psychological treatment within the paradigm of cognitive and behavioral therapy (Hamblen et al., 2019). Common for these therapies are the focus on the traumatic event/events and a concern with processing and restructuring the traumatic memories, to reduce level of anxiety and to change the negative perception of self and the world (Brewin et al., 2000).

The following three manualized treatments are consistently recommended by the British National Institute for Health and Care Excellence, the American International Society for Traumatic Stress Studies, the American Psychological Association, the Department of Veteran Affairs & the US Department of Defence and the Australian National Centre of Excellence in Posttraumatic Mental Health as principal in the mitigation of PTSD across all five expert groups:

- Cognitive Processing Therapy.
- Prolonged Exposure Therapy.
- Cognitive and Behavioral Therapy with trauma focus.

Further, three manualized treatments have been strongly recommended in the mitigation of PTSD by several but not all of the five expert groups, see below.

- Eye Movement Desensitization and Reprocessing Therapy (EMDR), recommended by ISTSS, APA, VA/DOD, Phoenix.
- Narrative Exposure Therapy recommended by NICE, APA, VA/DOD.
- Cognitive Therapy recommended by Phoenix, APA, ISTSS.

At present several less investigated interventions e.g. Reconsolidation of Traumatic Memories, single-session Cognitive and Behavioral Therapy, Written exposure therapy, Relaxation training, supportive counselling and emotional freedom techniques might be helpful in alleviation of part of the primary symptoms as well as other aspects of PTSD, i.e. increasing the level of daily functioning, alleviate general psychological suffering for example guilt, prevention of social isolation, and prevention of substance abuse as self-medication. However, while these less examined therapies could be of high value in the future, the evidence base is still too weak to endorse clinical recommendations (Hamblen et al., 2019).

In conclusion, in the mitigation of PTSD, all of the five expert groups consistently recommend 1) Cognitive Processing Therapy, 2) Prolonged Exposure Therapy, and Cognitive and Behavioral Therapy with trauma focus.

Pharmaco-therapies are less promising than psycho-therapies based on the existing evidence from Clinical Practice Guidelines, systematic reviews and meta-analyses, whereas medical treatment shows less promise

as a primary treatment of PTSD (Steenkamp et al., 2020). Medical treatment based on SSRI, an anti-depressant[11], is however, recommended as a less effective line of treatment in patients who are not motivated or able to participate in psychotherapy.

Medical treatment based on SSRI (anti-depressant) medication is also recommended as a viable supplementary treatment to first line psychological treatments in patients with depression or anxiety concurrent with their PTSD.

The following medical treatments have been recommended by some but not all of the expert groups (Hamblen et al., 2019):

- Treatment with Sertraline, recommended by VA/DoD, NICE, Phoenix, APA, ISTSS.
- Treatment with Venlafaxine recommended by NICE, APA, ISTSS.
- Treatment with Paroxetine recommended by VA/DoD, Phoenix, APA, ISTSS.
- Treatment with Fluoxetine recommended by VA/DoD, Phoenix, APA, ISTSS.

Mitigation of PTSD related to military trauma

Differences between the general evidence of PTSD treatment and military populations

Regarding the effect of first line treatments (psychotherapies) in military populations, six recent systematic reviews and meta-analyses on studies all find that treatment effects are lower among military personnel than in civilians and that dropout rates are higher (Haagen et al., 2015; Kitchiner et al., 2019; Steenkamp et al., 2015; Straud et al., 2019).

Despite the consensus regarding general first line treatments of PTSD, one should therefore hesitate in transferring these general recommendations unto military personnel with PTSD. PTSD prevalence trajectories and severity can differ considerably across different trauma populations (Javidi & Yadollahie, 2012). PTSD is not just a reaction to a traumatizing event but the result of complex interactions of varied factors before the traumatic incident (pre-trauma factors), during the traumatic incident (peri-traumatic factors), and following the traumatic incident (post-trauma factors) (Brewin et al., 2000). As an example, civilian trauma such as motor vehicle accidents are often characterized by unpredictability, unpreparedness for the event, the traumatized being passive or unable to act during the event, often only single or relatively few individuals being affected by the trauma. Civilian trauma is often also characterized by specific and immediate treatment in a civilian health system, etc.

In comparison, combat trauma often occurs with a high predictability. Due to training, uniformed personnel is mostly prepared for the event, and in many instances, they are actively participating in the event. Furthermore, uniformed personnel are often subjected to traumatic events in larger groups. Uniformed personnel may be under orders to stay in the area of the event in a specific role or simply to remain on duty, which precludes them from immediate care – operational needs may have higher immediate priority than care for the individual.

Specificities of military trauma and treatment effects

While military populations might be exposed to some of the risk factors that concern trauma populations in general, e.g. pre-trauma factors such as gender, family history of mental illness and childhood trauma

[11] SSRI stands for Selective Serotonin Reuptake Inhibitor.

(Brewin et al., 2000; Tortella-Feliu et al., 2019), other factors may be linked to the specific context of the trauma (Brewin et al., 2000; Forbes et al., 2016).

Traumatizing incidents in the military context are often argued to be more severe than in the civilian population, e.g. combat exposure, sudden death of close colleagues under severely stressful conditions, killing another human being, witnessing death and severe injuries of others as well as atrocities against civilians (Forbes et al., 2019; Haagen et al., 2015; Kaikkonen & Laukkala, 2016; Stein et al., 2012; Straud et al., 2019) Also, military personnel are often repeatedly exposed to traumatic events for prolonged periods of time.

As military PTSD often includes more than one type of trauma and repeated traumatic incidents, this is likely to impact the severity and complexity of PTSD symptoms (Stein et al., 2012; Xue et al., 2015) and might also affect treatment outcomes (Haagen et al., 2015; Steenkamp et al., 2015; Straud et al., 2019).

Similarly, some post-trauma factors are argued to be specific for military populations. Post-deployment stress and repatriation adjustment factors, including factors such as problems with veteran status or job retention, marital and family problems, and cultural stigmatization of mental health problems, are also examples of risk factors often present in the military trauma populations and which affect the trajectory and treatment effect on PTSD (Able & Benedek, 2019; Kaikkonen & Laukkala, 2016; Mota et al., 2021). It is important to be aware that these factors can variate significantly for the individual Troops- and Police Contributing Countries to UN peace operations.

Further, the outcome of the mission, the subsequent development in the mission area, the public opinion on the mission, and the political interpretation of mission results may be hypothesized to play a role for the individual experience of meaningfulness associated with deployment. Recognition of purpose and outcomes of the mission in the individual and society may enhance the meaningfulness of deploying and also of post-deployment mental health problems (Griffin et al., 2019; Litz et al., 2009).

In line with the arguments on trauma specific factors in the military trauma populations, several studies have indicated that the way PTSD is expressed in military populations is distinct from PTSD in civilians. Studies have shown a higher prevalence of delayed onset of PTSD (Utzon-Frank et al., 2014), and a complex expression of PTSD within military trauma populations with high levels of concurrent disorders of concurrent alcohol abuse (Dworkin et al., 2018; Mehlum et al., 2006), higher levels of aggression (MacManus et al., 2015; Worthen et al., 2015) and pronounced problems with resocializing into the civilian culture (Mobbs & Bonanno, 2018). It should, however, again be emphasized that this can vary greatly among Troops- and Police Contributing Countries to UN peace operations.

Conclusion, PTSD and treatment in military populations

These indications of differences between military and civilian trauma and PTSD point to the fact that general treatment guidelines might not fully meet the needs of traumatized uniformed personnel. Indeed, there is increasing evidence that first line treatments have less effect on PTSD in military populations (Haagen et al., 2015; Kitchiner et al., 2019; Steenkamp et al., 2015; Straud et al., 2019). General recommendations on mitigation of PTSD in UN peacekeepers should therefore also rely on studies specific to military trauma populations.

2.10. Increased risk of traumatization within the UN context

Studies have indicated, that the special characteristics of UN peace operations such as unclear organization and perception of low leadership quality during missions, frustration due to unclear peacekeeping restrictions or lack of meaning in mission goals are special risk factors for the development of PTSD in uniformed personnel deployed to UN peace operations (Mehlum & Weisæth, 2002; Sareen et al., 2010). While these risk factors have not been investigated in relation to treatments outcomes, they do suggest that UN peace operations might entail traumatic experiences and stressors that are specific to these missions. For these reasons, PTSD mitigation should be studied specifically for UN military and police.

Uniformed personnel deployed to UN peace operations might represent a special subgroup of trauma experiences within the military trauma population. UN peace operations are distinct because they are based on broad political mandates which have been argued to result in less clear and changing operative goals (Tobin, 2015). Operations are accomplished in cooperation with units with different nationalities, training, and professional culture, which can affect the soldiers' experience of organizational support and cohesion within encampments (Barnes et al., 2013).

As in combat missions, peace operations are often High Risk Missions which entail a high probability of danger (i.e. patrolling in hostile areas, support of transport within combat zones etc.) as well as witnessing of atrocities (killing, degradation and suffering of civilians (Mota et al., 2021; Sareen et al., 2010). Nevertheless, uniformed personnel deployed to UN peace operations act under specific restrictions in the rules of engagement. Such restrictions might not only be frustrating to professionals trained for combat (Shigemura & Nomura, 2002; Tobin, 2015), but can lead to an ever -experience of uselessness or lack of control or a feelings of inadequacy and ambiguity in regards to solving the overall goal of securing peace and protect civilians (Litz et al., 1997; Sareen et al., 2010; Shigemura & Nomura, 2002).

Different PTSD development and mitigation for military sub-populations

There is reason to believe that subpopulations within military personnel such as ethnic and cultural minorities might face special challenges and therefore need more attention pertaining to the expression of Post-Traumatic Stress Symptoms and thus possible difference in treatment effects.

Review studies have indicated that ethnic and cultural minorities among military personnel have increased risk of developing more severe levels of PTSD and have less effect of treatment. It has been argued that this could be due to a) ethnic and racial discrimination within the regiments, b) to higher levels of exposure to general pre-deployment life stressors, or c) barriers for treatment-seeking (Johnson & Possemato, 2019) for example due to a lack of cultural competencies within the majority of health providers of treatment of PTSD (Pittman, 2014).

Although results have been mixed (Coleman et al., 2019), studies have indicated that some (e.g. racial and ethnic) minority groups also show increased expression of concurrent suffering known to be present in trauma survivors in general. Here studies have indicated that some minority groups have more severe PTSD symptoms (Kaczkurkin et al., 2016), that racial and ethnic minority is associated with higher risk of comorbidity of depression (Nichter et al., 2020) and for some minority groups also a higher level of alcohol consumption (Kaczkurkin et al., 2016).

Although research is still unclear, there is indication that evaluation of mitigation of PTSD should take cultural and ethnic minority into account within military personnel, and for this reason it would be relevant for the UN to look further at the relevance of this aspect of PTSD given the multi-national and multi-cultural composition of UN peace operations.

Military sexual trauma victims
Military sexual trauma victims represent an important subpopulation within military PTSD. The specific vulnerability of this group is indicated e.g. by higher prevalence of homelessness compared to non-military sexual trauma PTSD (Brignone et al., 2016). For this group, trauma-focused therapies involving exposure or cognitive restructuring have been found to be effective, similar to general recommendations for PTSD.

2.11. PTSD mitigation approaches for military PTSD

For mitigation of PTSD in general, novel intervention methods are being developed. A subset of these is being tested for mitigation of PTSD in military settings. It would be relevant to observe how such novel methods are being used and evaluated in the Troops- and Police Contributing Countries to UN peace operations.

Virtual and / or tele therapies
When access to psychotherapy is limited due to geography, tele or virtual Cognitive and Behavioral Therapy with trauma focus is an option. Furthermore, tele therapy may reduce stigma from entering clinics. Tele or virtual Cognitive and Behavioral Therapy with trauma focus can be as efficient as individual, in vivo Cognitive and Behavioral Therapy with trauma focus for military PTSD (C. Jones et al., 2020; Turgoose et al., 2018) although aspects of IT security and military classification might have to be taken into consideration for UN missions. As an exposure technique, virtual exposure to trauma-related stimuli may be promising, but has not shown to produce higher recovery than Cognitive and Behavioral Therapy with trauma focus (CBT-TF) in military PTSD (Kothgassner et al., 2019).

New pharmacological therapies
A number of experimental pharmaco-therapies for military PTSD have been tested in general and not in UN setting. A limited number of these have been tested on military PTSD, and within these, fewer have been subjected to a sufficient number of randomized clinical trials to support systematic reviews or meta-analyses. Among these, the pharmacotherapy Prasozine has indicated a reduction in intrusive memories during sleep (nightmares) in military PTSD (Berardis et al., 2015; Breen et al., 2017).
Psychotherapy and pharmacotherapy treatments have been investigated in combination. In military PTSD, the effect of combining prolonged exposure with SSRI, well-known in use as anti-depressant, does not result in more symptom reduction than prolonged exposure therapy alone (Rauch et al., 2019).

Mindfulness
Mindfulness-based stress reduction (MBSR) has been shown to reduce symptoms in military PTSD. The effect of MBSR has been reported to be proportional with length of the intervention (Hopwood & Schutte, 2017).

3. Gender perspective

The following chapter presents a gender perspective to the issue of PTSD among uniformed personnel deployed to a UN peace operation due to a strategy of recruiting more women (see Appendix 1). Furthermore, the number of women serving as uniformed personnel in UN peace operations has increased significantly over time. E.g. in the past 10 years, UN peace operations have comprised deployment of more than 58,000 uniformed women where an increasing number has been deployed to High Risk Missions (see Appendix 1)

The chapter therefore treats all the four objectives included in this report, namely:

- What is the **probability of developing PTSD** for uniformed personnel following deployment in a UN operation?
- What is the **average duration** from repatriation to recognition of PTSD?
- Which **best practices for prevention of PTSD** in uniformed personnel deployed to a UN peace operation can be identified?
- Which **best practices for mitigation of PTSD** in uniformed personnel deployed to a UN peace operation can be identified?

The literature study sought answers to the objectives through identification of existing literature, research articles, reports and other publications in the period 1990 – March 16 2021 as detailed in chapter 2. Literature Study. In the following, the findings from the literature study are presented.

3.1. Objective 1: Probability of developing PTSD for uniformed personnel following deployment to a UN peace operation - the gender perspective

The literature search only identified two studies with a gender perspective. One of the studies reported prevalence of probable PTSD separately for men and women and found no difference (Litz et al., 1997). The other study included gender in an analysis of factors possibly influencing the presence of probable PTSD and found gender had no influence (Gjerstad et al., 2020)[12]. Two further studies appeared in the searches but were rejected with the reasons stated in table 2 (below).

However, these findings are characterized by important uncertainties.

First, the knowledge on the gender perspective of PTSD prevalence among uniformed personnel deployed to a UN peace operation comes from studies which included UN missions more than 10 years ago when mainly male uniformed personnel were deployed.

Before 2009, the number of uniformed women deployed to UN peace operations was very low, totaling 1-3 % of the total number of deployed personnel. With the Security Council Resolution 1325 on Women, Peace and Security adopted by the United Nations Security Council in October 2000, and the SG's System-Wide Gender Parity Strategy launched in September 2017, the number of uniformed women began to increase. From 2009 to 2020, more than 58,000 uniformed women were deployed to UN peace operations.

Although little is known about the risk of PTSD for female uniformed personnel, there are reasons to believe that they are vulnerable in both similar and additional ways to their male colleagues due to pre-deployment

[12] See chapter 2 for a general outline of the methodology of the literature study. Appendix 1 presents search terms while appendix 2 presents flow diagrams.

conditions, functions performed during mission, and to their gender[13]. Consequently, there could be reasons to believe that the prevalence of PTSD could increase following the increased number of female uniformed personnel. This aspect needs further studies and clarification.

Second, one major concern within the female military population is the exposure to sexual traumas which are not combat related such as occupational sexual assault (Kintzle et al., 2015). Studies have indicated that within the female military population there is a higher prevalence of sexual assault compared to the male military population (Castro et al., 2015), and this special type of trauma has been associated with more severe PTSD symptoms and lower treatment effects (Forbes et al., 2019; Straud et al., 2019). The risk of sexual trauma during deployment which is not directly combat related for female uniformed personnel further underlines the necessity of studies with a gender aspect of the risk and prevalence of PTSD among UN uniformed personnel.

Finally, the UN 'Staff Well-Being Survey Data Report' (Amer et al., 2017) found that PTSD was more frequently seen among civilian women than civilian men. When the report study carried out an analysis controlling for sociodemographic information, gender disappeared as a relevant factor for PTSD. However, in the general population, prevalence of PTSD varies among female and male populations. Consequently, it would be useful to look closer at prevalence of PTSD and gender in relation to UN peace operations.

Following from this above, it would be of relevance to encourage the Troops- and Police Contributing Countries to UN peace operations to document possible gender effects which calls for new research studies that cover the past ten years. Consequently, it is not possible to define a prevalence rate for uniformed women within a UN context.

[13] For further details, see the chapter above on best practices of mitigation.

Table 2. Identified studies on gender and prevalence rates and reasons for inclusion/exclusion.

Authors & publica-tion Date	Nation Mission	Women /Men	Findings	Comments from the Danish team
Fontana et al. 2000	USA UNOSOM	197 / 1307	PTSD symptoms post-deployment were equally prevalent in both genders.	The study does not provide PTSD prevalence for men and women and therefore the paper was not included. The study uses data from Litz et. al.'s (1997) Somalia (UNOSOM) veteran survey. Therefore, the Danish team uses Litz et al. In Litz et al. (1997) they found PTSD prevalence were equally prevalent among both genders – but data are only based on one mission.
Adler et al. 2000[14]	USA Bosnia	1225 / 2114	No gender differences were found in rates of PTSD or depression.	The paper by Adler et al. 2005 reports no pure prevalence of PTSD among peacekeepers. The paper studies 3,339 U.S. soldiers in non-combat arms units deployed on a NATO peacekeeping mission to the Bosnia area of operations that included Hungary, Bosnia-Herzegovina, and Croatia. The paper was due to the NATO mission (and its focus on risk factors) not found via the search terms the three research librarians from The Royal Defence College used when performing searches in the databases Scopus, PubMed, PsycINFO, and Cochrane.
Sareen et al. 2008	Canada Various	2562 / 5849	The prevalence of PTSD was higher for active duty women (3.3 %) than for men (2.2 %) in the population. But only 24 % of PTSD symptoms in active duty could be attributed directly to deployment in either peacekeeping or combat, compared to 47 % for men. Women also had 27 % of their burden of panic disorder (also often triggered by a traumatic event) attributable to peacekeeping or combat deployments.	The results are from various missions – also non-UN operations - and the prevalence of PTSD is only present for active duty women (and for reserves that had been active within the last six months before data collection in 2002). Sareen et al. do not provide PTSD prevalence for men and women that have participated in peacekeeping operations only. The prevalence also includes those that have participated in combat. We looked carefully into whether it was possible to calculate PTSD prevalence based on the adjusted population attributable fractions in the reported results from the regressions with the 4-category deployment variable examining the individual and combined effects of combat and peacekeeping. We evaluated that it was not possible to calculate a PTSD prevalence based on those that had participated in peacekeeping based on the adjusted result. If it was possible to calculate a prevalence rate, it would not have been possible to address which UN operation the prevalence addressed.
Gjerstad et al. 2020	Norway UNIFIL	307 / 9991	Men and women were equally affected by deployment-related PTSD, depression, anxiety, and drug or alcohol abuse.	The present study refers to the study by Gjerstad et al. 2020 which we included.

[14] As noted in the right column the publication year must be Adler et al. 2005 instead of Adler et al. 2000.

3.2. Objective 2: Average duration from repatriation to recognition of PTSD

No literature was found concerning objective 2: average duration from repatriation to recognition of PTSD.

3.3. Objective 3: Best Practices for Prevention of PTSD – the Gender Perspective

No literature was identified that treated the gender aspect in relation to prevention of PTSD for female uniformed personnel deployed to UN peace operations.

Nevertheless, if the scope is broadened to include national military contexts, the general scientific literature states that gender is a predictor for the risk of developing PTSD and that female military personnel are more likely to experience PTSD following combat than are males.
A number of factors may account for these findings but the main reasons are lower military preparedness among women, less unit cohesion, higher rates of depression, and higher rates of childhood sexual abuse and sexual assault (Xue et al., 2015).

In the missions, female uniformed personnel are also vulnerable in additional ways to their male colleagues due to, among others, the functions performed by women during mission, for instance building bridge to vulnerable women and women who have been exposed to assaults, sexual abuse and violence and ensure community engagement and to their gender. This might expose female uniformed personnel to additional stressors and prolonged stress.

This seems to suggest that it would be useful to find ways to prevent PTSD among female uniformed personnel and ensure preparedness for deployment to UN missions of female uniformed personnel.

3.4. Objective 4: Best Practices for Mitigation of PTSD – the Gender Perspective

No literature was identified that treated the gender aspect in relation to mitigation of PTSD for female uniformed personnel deployed to UN peace operations.

From the general scientific literature about mitigation and the scientific studies of mitigation within military contexts we know, however, that women within military personnel might have different outcome of treatment effects compared to the majority of male colleagues. Even though PTSD prevalence and treatment effects in general vary among female and male populations, one major concern within the female military population is, as also mentioned above, the exposure to traumatic events during their deployment, but not related to mission activities. Among those are occupational sexual assault (Kintzle et al., 2015).

Studies have indicated that within the female military population there is a higher prevalence of sexual assault compared to the male military population (Castro et al., 2015), and this special type of trauma has been associated with more severe PTSD symptoms and lower treatment effects (Forbes et al., 2019; Straud et al., 2019). While differences between male and female treatment effects might be affected by several predictors not exclusively military, the knowledge on sexual trauma alone should underline the necessity to evaluate mitigation effects with a focus on gender as part of overall recommendations.

Research in PTSD in female military/law enforcement personnel has shown that specific mitigation approaches may benefit the outcome. For this population, treatment programs for women-only result in higher compliance and less dropout, and inpatient programs produce better treatment outcomes (Campbell et al., 2016; Stefanovics & Rosenheck, 2019). It has also been found that female military PTSD patients respond to specific referral and communication methods (public announcements rather than referral from medical personnel/institutions).

The literature on military contexts argues that differences in vulnerability towards developing PTSD after trauma exposure has been identified for specific groups within military PTSD populations – for instance minority groups. As The Uniformed Gender Parity Strategy outlines, women still constitute a minority within the total police and military peace operations. Such minority groups are in military (i.e. not UN contexts) suggested to have increased risk of developing more severe level of PTSD and having less effect of treatment. It has been argued that this could be due to ethnic and racial discrimination within the regiments, due to higher levels of exposure to general pre-deployment life stressors, and because of barriers of treatment seeking (Johnson & Possemato, 2019).

Although research is still unclear, there is indication that evaluation of mitigation of PTSD should take minority (cultural, ethnic, gender) into account. Studies have indicated that some minority groups have more severe PTSD symptoms (Kaczkurkin et al., 2016). Mitigation of PTSD in these groups may further demand specific methods or specific settings. The scientific literature presents reason to believe that within military personnel, subpopulations and minorities might face special challenges and therefore need more attention pertaining to the expression of Post-Traumatic Stress Symptoms and thus possible difference in treatment effects.

4. Conclusions and perspectives

The aim of the present study was to present certain findings and new knowledge generated through the voluminous literature study analysis as part of the comprehensive study of PTSD in relation to uniformed personnel deployed to a United Nations peace operation.

The present report has presented the findings related the following four objectives:

- What is the **probability of developing PTSD** for uniformed personnel following deployment in a UN operation?
- What is the **average duration** from repatriation to recognition of PTSD?
- Which **best practices for prevention of PTSD** in uniformed personnel deployed to a UN peace operation can be identified?
- Which **best practices mitigation for PTSD** in uniformed personnel deployed to a UN peace operation can be identified?

The following chapter presents the conclusions and further perspectives of the four objectives.

4.1. Objective 1 and 2: Probability of developing PTSD and Average duration from repatriation to recognition of PTSD

Conclusions and perspectives from the literature study

In the included studies, the proportion of military UN uniformed personnel presenting with PTSD after repatriation was based on questionnaire measures ('self-reporting') which may not be 100 % equivalent to a clinical verified PTSD diagnosis. Furthermore, the probability of PTSD was not examined at the same time or with similar instruments or with similar cutoff-scores making comparison difficult.

No studies represented present High Risk Missions. It would be important to include the African and Asian regions, which are large contributors to High Risk Missions, in future studies of PTSD prevalence among UN uniformed personnel.

Many studies lacked information on the influence of previous deployments or pre-deployment factors that may influence the probability of PTSD.

Furthermore, the results from the included studies represented military UN deployments from the mid-2000s, 1990s, or earlier. Preparation to deployment and mental health policy of the Troops- and Police Contributing Countries to UN peace operations in this period may differ from current practices. This means that the findings from the studies including the early periods cannot necessarily be transferred to current estimates of probability of PTSD in UN peace operations.

There might be a risk of cultural bias in the response. Some countries may not have been able to measure the probability of PTSD after repatriation due to lack of validated PTSD questionnaires, lack of possibilities for recognition and identification of mental problems.

This could be caused by a limited access or lack of mental health workers as psychiatrists or psychologists which according to WHO is only 2 per 100,000 inhabitants in low-income countries as compared to 70 or over per 100,000 inhabitants in high-income countries (World Health Organization, 2018B). Furthermore, instituted mental health policies are only present for less than half of the countries which further may hinder the recognition of PTSD following deployment to a UN peace operation.

None of the included studies examined the probability of Complex PTSD (CPTSD), which is a new diagnostic PTSD-category in the update of WHO International Classification of Diseases, 11th revision. CPTSD is a condition where symptoms of PTSD co-exist with disturbances in self-regulatory capacities such as emotional dysregulation, negative self-concept, and interpersonal difficulties. CPTSD is in general seen after exposure to multiple form of interpersonal trauma, and repeated and prolonged exposure.

Finally, the identified material might be limited by the search strategy since some material may not have been indexed in the databases, e.g., conference proceedings, or might have been unpublished/internal material.

The limited number of studies and publications about prevalence of PTSD related to UN peace operations and the limitations listed above suggest that it would be useful to promote longitudinal studies of UN peace operations including High Risk Missions with several measurement points, pre-deployment included. The studies should include female and male police and military uniformed personnel from all regions. It should be discussed if validated instruments should be a criterion.

Furthermore, it would be useful to launch studies that include possible factors affecting PTSD such as personality traits, previous trauma experience, traumatic experience during deployment and after repatriation, leadership, and group cohesion to provide better answers to objective 1 and 2. Finally, it would be relevant to estimate the representativeness of the participants.

4.2. Objective 3: Best practices for Prevention of PTSD

Conclusions and perspectives from the literature study

Studies of preventive measures of PTSD in military and police personnel deployed in UN peace operations are few, only four studies were found. Approaches identified were screening, operational stress training and psychological debriefing.

More studies have examined universal and selective preventive strategies to decrease the risk of PTSD following deployment among military personnel in other missions than UN peace operations. Several studies of emergency responders, police, and other occupational groups conducted in non-UN settings were also identified.

The efficiency of pre-deployment and early post-deployment screening has been questioned, and there is no overall agreement on a best practice for deployment-related screening of PTSD.

There is reason to believe that psychological debriefing is beneficial when provided at its intended target populations in which deployed soldiers could be included. Moreover, it is important that the intervention adheres to the prescribed time frames and components described in a procedural manual for the intervention (has a high fidelity). There is a lack of well-conducted studies evaluating psychological debriefing models applied in occupational target populations including military.

The strongest primary preventive strategies to date appear to be those utilizing a combination of education, skills training, and stress reduction techniques to enhance resilience. The research results demonstrate that brief early mental health training programs including stress inoculation training integrated in the military training and training of police personnel have the potential to be effective, but there is a lack of well-conducted studies of pre-deployment mental health training interventions assessing the prevalence of post-deployment PTSD as outcome.

More research of psychological debriefing models applied in occupational target populations (including military) is needed to assess its effectiveness.

More research of the influence of pre-deployment mental health training interventions on the risk for post-deployment PTSD is needed.

4.3. Objective 4: Best practices for Mitigation of PTSD

No studies were identified that reported on best practices for mitigation in a UN military or UN police context specifically. Consequently, in this sub-report best practices of mitigation of PTSD in personnel deployed to UN peace operations is synthesized by reviewing studies of mitigation of PTSD in military populations and first-responders which similarly are at an increased risk of exposure to traumatic incidents as part of their occupation, and - when relevant – by reviewing studies of mitigation of PTSD in general populations as well. Importantly, in the scientific literature, *mitigation* of PTSD is merely construed as *treatment* of PTSD.

The clinical practice guidelines congruently point to two treatments: 1) psychotherapy is consistently recommended as first line treatments alongside other strongly recommended psychotherapies, and 2) Secondarily, medicine (pharmacological intervention) is recommended in situations where psychotherapy for various reasons may not be applicable.

Many other trauma-oriented mitigation methods exist whose efficiency, however, still remains to be documented or tested. Among these are: learning to control your thoughts, yoga, service dogs, and spiritual interventions.

PTSD symptoms do most often not disappear completely but can be reduced so that daily life becomes more manageable for the individual. However, the burden of PTSD in UN uniformed personnel cannot be completely alleviated by following these clinical practice guidelines. As concluded in recent analyses, even though these therapies currently prove to be the most effective for many, a large minority of uniformed personnel with PTSD do not experience sufficient symptom relief, even after repeated mitigation attempts.

To conclude, a need to develop mitigation methods for the large minority not experiencing sufficient recovery remains.

Further, current knowledge rests on a number of important limitations. First, best practice guidelines have exclusively been produced in Western cultures and may not be fully applicable in other cultures. Second, best practice guidelines are based on evaluation of treatment of individuals and not on interventions at the level of units, communities or societies. Third, the treatments recommended by the clinical practice guidelines require some level of professional, clinical training in psychotherapy or pharmacology, which presupposes access to specialized personnel that may not be sufficiently available in all regions.

Due to this, it would be useful for the UN to consider how equal access for all uniformed personnel from all regions to psychotherapy and/or pharmacology can be supported or established, and how mitigation methods can be developed for non-Western cultural settings.

To effectively mitigate PTSD related to UN missions, more knowledge about mitigation of PTSD in a UN context is needed. Importantly, mitigation of PTSD in vulnerable groups (e.g. uniformed personnel from low-income countries, uniformed female personnel, and specific types of trauma exposure) within UN missions has not been subject to research.

New studies must also focus on cultures and regions others than those included in previous studies. The mitigation structures from the 'Western and others' region cannot be transferred to other regions without taking the specific health systems into consideration. In low-income regions, for instance, the access to treatments may be very limited and even impossible. According to WHO the number of mental health workers such as psychiatrists or psychologists is only 2 per 100,000 in low-income countries as compared to 70 or more per 100,000 in high-income countries (World Health Organization, 2018A).

It would be useful to discuss how psychotherapy and pharmacology can be distributed to the uniformed personnel without depending entirely on what can be offered within the national context or how member states can be supported in offering mitigation to uniformed personnel deployed in un peace operations.

For mitigation of PTSD in general, novel intervention methods are being developed. A subset of these is being tested for mitigation of PTSD in military settings. Tele or virtual Cognitive and Behavioral Therapy with trauma focus is one such new intervention, and it would be interesting for the UN to look further at how such novel methods are being used and evaluated in the Troops- and Police Contributing Countries to UN peace operations.

It would be useful to launch studies and discussions of the role of the family and social network of the uniformed personnel with PTSD. Families of individuals with PTSD are often directly exposed to the post-trauma reactions, and this affects the well-being of the entire family, not least the children of uniformed personnel with PTSD. Reversely, it also affects the individual with PTSD to know that he/she is a burden to the family.

4.4. The Gender Perspective of PTSD in Uniformed Personnel Deployed to a UN Peace Operation

Appendix 1 shows the number of women serving as uniformed personnel in UN peace operations has increased significantly over time. In the past 10 years, UN peace operations have comprised deployment of more than 58,000 uniformed women. An increasing number has been deployed to High Risk Missions, which constitute an increased risk of PTSD among uniformed personnel given the high level of stressors on such missions.

Due to a lack of studies, it is not possible to give a prevalence rate with a gender aspect. However, from national, military deployments of women we know that female uniformed personnel are vulnerable and exposed to the risk of PTSD in both similar and additional ways to their male colleagues due to pre-deployment conditions, functions performed during mission, and to their gender. Consequently, a significant PTSD prevalence rate for uniformed women deployed to UN missions might be expected in the years and decades to come.

No literature was identified that treated the gender aspect in relation to prevention of PTSD for female uniformed personnel deployed to UN peace operations. No ready-to-use programs of prevention and mitigation exist which take the specific conditions related to female uniformed personnel into consideration.

In national military contexts, gender is a predictor for the risk of developing PTSD and female military personnel are more likely to experience PTSD following combat than are males. A number of factors may account for these findings but the main reasons are lower military preparedness among women, less unit cohesion, higher rates of depression, and higher rates of childhood sexual abuse and sexual assault.

This might expose women uniformed personnel to additional stressors and prolonged stress and seems to suggest that it would be useful to find ways to prevent PTSD among female uniformed personnel and ensure preparedness for deployment to UN missions of female uniformed personnel.
Research in PTSD in female military/law enforcement personnel has shown that specific mitigation approaches may benefit the outcome for women. For this population, treatment programs for women-only result in higher compliance and less dropouts. There must be an awareness that some special incidents might be of a nature where prevention and mitigation programs fall short of effect.

Women within military personnel might have different outcome of treatment effects compared to male colleagues. One major concern within the female military population is the exposure to traumatic events during their deployment but not related to mission activities. While differences between male and female treatment effects might be affected by several predictors not exclusively military, the knowledge on sexual trauma alone should underline the necessity to evaluate mitigation effects with a focus on gender.

Overall, the literature study revealed a strong need for the launch of studies which can clarify the prevalence of PTSD among female uniformed personnel deployed to UN peace operations. This could for instance be done through data collection among the Troops- and Police Contributing Countries to UN peace operations.

A strong need also exists for studies that examine how female uniformed personnel for UN peace operations can best be supported through prevention and mitigation programs to prevent or mitigate PTSD.

5. Appendix 1. UN gender strategies and number of deployed women

As stated in chapter 1, there is a strategy for recruiting more women to UN missions, which make it relevant also to focus on the four objectives from a gender perspective. Below the strategy and the number of women serving in UN peace operations including high risk missions is presented.

Gender equality and women's rights have had particular focus within the United Nations since the Security Council Resolution 1325 on Women, Peace and Security adopted by the United Nations Security Council in October 2000. It was followed by the SG's System-Wide Gender Parity Strategy launched in September 2017. Numerous of other initiatives have followed. For the particular focus of this study on uniformed personnel deployed to UN peace operations, the release of the Uniformed Gender Parity Strategy (2018-2028) by the UN Department of Peace Operations in 2018 should be highlighted.

The Uniformed Gender Parity Strategy outlines that:

> 'The Secretary-General attaches the greatest importance to increase the participation of uniformed women in peacekeeping, as set out in his system-wide Gender Parity Strategy. This builds on the work established by the mandates of UNSC Resolution 1325 on Women, Peace and Security, and the seven successive resolutions, which recognize the importance of women's participation in peace operations.
>
> To this end, over recent years, the UN has set successive targets: in 2015, UNSC Resolution 2242, for example, called for doubling the number of women in uniformed components by 2020. This Uniformed Gender Parity Strategy sets out the targets for women in peacekeeping and outlines how DPO1 plans to meet those goals.
>
> This strategy was requested by the Secretary-General in the context of his Gender Parity Strategy which applies to all staff, and for which there are separate implementation plans for civilian staff in entities at Headquarters and the field.
>
> This Strategy seeks to increase representation of women in UN peacekeeping operations in a sustainable manner'. [15]

5.1. Increase in number of uniformed women deployed to UN peace operations

The number of women serving as uniformed personnel in UN peace operations has increased significantly in the past 10 years. Since 2009, UN peace operations have comprised more than 58,000 uniformed women deployments. A significant and increasing number has been deployed to High Risk Missions.

The Uniformed Gender Parity Strategy specifies that:

- 'The Office of Military Affairs' (OMA) goal is to reach 25 % by 2028 (i.e. an additional 1 % per year). In line with UNSCR 2242, OMA also plans to double the number of women in uniformed

[15] https://peacekeeping.un.org/en/gender or https://peacekeeping.un.org/sites/default/files/uniformed-gender-parity-2018-2028.pdf

components overall by 2020. While it will be more difficult to address the situation within contingent troops, OMA has set a goal of 15 % women by 2028.' [16]

- The PD goal is to reach 30 % women in seconded contracted professional posts in UNHQ and 25 % in field missions by 2025; and to reach 30 % in field missions and 35 % in UNHQ by 2028. In line with UNSCR 2242, PD plans to double the number of women in police components overall with the goal of 15 % female officers within FPUs by 2025 and 20 % by 2028 and to reach 25 % female officers within IPOs by 2025 and 30 % by 2028.[17]

The following table 3 demonstrates the increase in the number of uniformed women deployed to UN peace operations since 2009.

Table 3. Number of uniformed women, total (both police and military), 2009-2020[18].

Female contribution military and police 2009-2020

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
All missions	3036	4155	4380	4356	4295	4688	5014	5850	5128	5347	6028	6281	58558
High risk missions	744	1779	1982	2221	2298	2749	3041	3308	3412	3858	4391	4716	34499

Female contribution military 2009-2020

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
All missions	2186	2632	2741	2741	2786	3207	3407	4253	3708	3825	4278	4573	40337
High risk missions	422	987	1093	1293	1351	1786	2011	2240	2310	2505	2826	3088	21912

Female contribution police 2009-2020

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
All missions	850	1523	1639	1615	1509	1481	1607	1597	1420	1522	1750	1708	18221
High risk missions	322	792	889	928	947	963	1030	1068	1102	1353	1565	1628	12587

[16] http://peacekeeping.un.org/en/gender
[17] http://peacekeeping.un.org/en/gender
[18] Range of years have been limited to 2009-2020, since numbers separating by gender was introduced in 2009 on the UN peacekeeping contribution lists. The numbers listed here are based on UN peacekeeping contribution lists. The tables are generated based on numbers provided by the DOS/UCSD and numbers available at www.peacekeeping.un.org/en/gender

6. Appendix 2. Search terms and results

Prevalence of PTSD among military personnel

Search number	Search Scopus 15h March 2021	Totals
#3	TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989	3051
#2	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
#4	TITLE-ABS-KEY (prevalence OR occurrence) AND PUBYEAR > 1989	1673296
#5	TITLE-ABS-KEY (gender OR sex OR male* OR female* OR men* AND wom*n*) AND PUBYEAR > 1989	1309376
#1	TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989	1162322
#7	#1 AND #2	15816
#8	#1 AND #3	978
#9	#1 AND #4	42357
#10	#1 AND #5	17890
#11	#1 AND #2 AND #3 AND #4 AND #5	0
#12	#1 AND #2 AND #3 AND #4	10

Search number	Search PubMed 15th March 2021	Totals
#4	("Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract] OR "air force*"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	193552
#3	("combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	64976
#15	("peacekeep*"[Title/Abstract] OR "united nation"[All Fields] OR ("UN"[Title/Abstract] AND "uniformed*"[All Fields])) AND (1990/1/1:2021/3/10[pdat])	755
#13	("gender"[Title/Abstract] OR "sex"[Title/Abstract] OR "female"[Title/Abstract] OR "wom n*"[Title/Abstract] OR "male*"[Title/Abstract] OR "men"[All Fields]) AND (1990/1/1:2021/3/10[pdat])	2261393
#8	(("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalence"[All Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields] OR "epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "occurrence"[All Fields] OR "epidemiology"[MeSH Terms] OR "occurrences"[All Fields]) AND 1990/01/01:2021/02/12[Date - Publication]) AND ((fha[Filter]) AND (meta-analysis[Filter] OR randomizedcontrolledtrial[Filter]) AND (1990/1/1:2021/2/12[pdat]))	2931452
#16	#15 AND #3	84
#17	#15 AND #4	348
#18	#15 AND #13	116
#19	#15 AND #8	276
#20	#4 AND #3 AND #15 AND #13 AND #8	13
#1	#4 AND #3 AND #8 AND #15	38
Additional	(#3 AND #15 AND #8) AND 21543949[UID]	1

Search number	Search PsycINFO 15th March 2021	Totals
#2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	58839
#5	TX peacekeeping* OR united nations OR un OR uniformed personnel OR veteran*	79226
#3	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen?e OR troop* OR constable* OR constabular* OR officer*) OR "air force*"	129571
#6	TX gender OR sex OR male* OR female* OR men* wom*n*	1972109
#7	TX prevalence OR occurrence	163353
#8	S2 AND S3 AND S5 AND S6 AND S7	989
#10	S2 AND S3 AND S5 AND S7	1273
S5	TI S5 OR AB S5 OR KW S5	808
S8	TI S5 AND AB S5	52

Search number	Search Cochrane 15th March 2021	Totals (review)
#1	(("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd")):ti,ab,kw	51
#2	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*"):ti,ab,kw	127
#4	(prevalence):ti,ab,kw OR (occurrence):ti,ab,kw	1063
#5	(gender):ti,ab,kw OR (sex):ti,ab,kw OR (male*):ti,ab,kw OR (female*):ti,ab,kw	3133
#6	(peacekeeping*):ti,ab,kw OR (united nations):ti,ab,kw OR (uniformed personnel):ti,ab,kw OR (veteran*):ti,ab,kw	105
#7	#1 AND #2 AND #3 AND #4 AND #5 AND #6	0
#8	#1 AND #2 AND #3 AND #4 AND #6	0

Prevalence of PTSD among police personnel

Search number	Search Scopus 16th March 2021	Totals
#1	TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989	3051
#2	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
#3	TITLE-ABS-KEY (prevalence OR occurrence) AND PUBYEAR > 1989	1673648
#6	police OR law AND officer OR law AND enforcement OR garda OR gendarme OR patrolmen AND PUBYEAR > 1989	162337
#7	(TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989) AND ((TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989)	58
#8	(TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (prevalence OR occurrence) AND PUBYEAR > 1989)	145
#9	(TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989) AND (police OR law AND officer OR law AND enforcement OR garda OR gendarme OR patrolmen AND PUBYEAR > 1989)	102
#10	(TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989) AND ((TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (prevalence OR occurrence) AND PUBYEAR > 1989) AND (police OR law AND officer OR law AND enforcement OR garda OR gendarme OR patrolmen AND PUBYEAR > 1989)	0

Search number	Search PubMed 16th March 2021	Totals
#2	("peacekeep*"[Title/Abstract] OR "united nation"[All Fields] OR ("UN"[Title/Abstract] AND "uniformed*"[All Fields])) AND (1990/1/1:2021/3/10[pdat])	756
#3	("combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]) AND 1990/01/01:2021/03/10[Date - Publication]) AND (1990/1/1:2021/3/10[pdat])	65019
#4	("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalence"[All Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields] OR "epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "occurrence"[All Fields] OR "epidemiology"[MeSH Terms] OR "occurrences"[All Fields]) AND 1990/01/01:2021/02/12[Date - Publication] AND "hasabstract"[All Fields] AND ("meta analysis"[Publication Type] OR "randomized controlled trial"[Publication Type]) AND 1990/01/01:2021/02/12[Date - Publication]) AND (1990/1/1:2021/3/10[pdat])	130278
#6	#2 AND #3	84
#5	("patrolmen"[All Fields] OR ("police"[MeSH Terms] OR "police"[All Fields] OR "polices"[All Fields] OR "police s"[All Fields] OR "policed"[All Fields] OR "policing"[All Fields]) OR (("jurisprudence"[MeSH Terms] OR "jurisprudence"[All Fields] OR "law"[All Fields]) AND ("office"[All Fields] OR "office s"[All Fields] OR "officer"[All Fields] OR "officer s"[All Fields] OR "officers"[All Fields] OR "offices"[All Fields])) OR ("law enforcement"[MeSH Terms] OR ("law"[All Fields] AND "enforcement"[All Fields]) OR "law enforcement"[All Fields]) OR "gendarme"[All Fields] OR "garda"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	42253
#9	#2 AND #3 AND #5 AND #4	1
#7	#2 AND #4	5
#8	#2 AND #5	12

Search number	Search PsycINFO 16th March 2021	Totals
#1	TX peacekeeping* OR united nations OR un OR uniformed personnel OR veteran*	76754
#2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	58867
#3	TX prevalence OR occurrence	163456
#4	(police officers or law enforcement or cops or police) OR law officer OR garda OR gendarmerie OR patrolmen	38632
#5	S1 AND S2	11597
#6	S1 AND S3	4960
#7	S1 AND S4	819
#8	S1 AND S2 AND S3 AND S4	20

Search number	Search Cochrane 16th March 2021	Totals (review)
#1	(combat disorder* OR "stress disorder*" OR "possttraumatic" OR "ptsd")	51
#4	(prevalence):ti,ab,kw OR (occurrence):ti,ab,kw	1063
#14	#6 AND #1 AND #4 AND #10	0
#10	(police):ti,ab,kw OR (law enforcement):ti,ab,kw OR (garda or gendarme):ti,ab,kw OR (patrolmen):ti,ab,kw OR (law officer):ti,ab,kw	26
#6	(peacekeeping*):ti,ab,kw OR (united nations):ti,ab,kw OR (uniformed personnel):ti,ab,kw OR (veteran*):ti,ab,kw	105
#11	#6 AND #1	3
#12	#6 AND #4	20
#13	#6 AND #10	1

Prevention of PTSD in UN peace operations – military personnel

Search number	Search Scopus 10th March 2021	Totals
1	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
2	TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989	1159324
3	TITLE-ABS-KEY (preventi* OR "prevention intervention*" OR pretrauma*) AND PUBYEAR > 1989	1413557
4	TITLE-ABS-KEY (prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training") AND PUBYEAR > 1989	3231857
5	TITLE-ABS-KEY (peacekeep* OR ("united nation") OR (un OR uniformed*)) AND PUBYEAR > 1989	345951
6	TITLE-ABS-KEY (resilience OR (stress AND reduction)) AND PUBYEAR > 1989	295837
7	#1-6	1
8	#1-5	19

Search number	Search PubMed 9th March 2021	Totals
2	"combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract]	72118
3	"Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract]	224965
4	"preventi*"[Title/Abstract] OR "prevention intervention*"[Title/Abstract] OR "pretrauma*"[Title/Abstract]	893018
5	"prevention"[Title/Abstract] OR "resilience"[Title/Abstract] OR "prophylaxis"[Title/Abstract] OR "modifiable factor*"[Title/Abstract] OR "stress control"[Title/Abstract] OR "educati*"[Title/Abstract] OR "stress inoculation training"[Title/Abstract]	1269705
7	"peacekeep*"[Title/Abstract] OR "united nation"[Title/Abstract] OR ("UN"[Title/Abstract] AND "uniformed*"[Title/Abstract])	698
8	"resilience"[All Fields] OR "resiliences"[All Fields] OR "resiliencies"[All Fields] OR "resiliency"[All Fields] OR "resilient"[All Fields] OR "resilients"[All Fields] OR (("stress"[All Fields] OR "stressed"[All Fields] OR "stresses"[All Fields] OR "stressful"[All Fields] OR "stressfulness"[All Fields] OR "stressing"[All Fields]) AND ("reduction"[All Fields] OR "reductions"[All Fields]))	113855
9	#2 + #3 + #4 + #5 + #7 + #8	0
10	#2 + #3 + #4 + #5 + #7	2

Search number	Search PsycINFO 9th March 2021	Totals
S7	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder)	60709
s6	"Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen?e OR troop* OR constable* OR constabular* OR officer*	159813
s5	(prevention or intervention or treatment or program) OR (prevent or intervention or treatment or program) OR pretrauma*	1635302
s4	(prevention or intervention or treatment or program) OR (resilience or resiliency or resilient) OR prophylaxis OR modifiable factor* OR stress control OR educati* OR stress inoculation training ptsd	2170598
s3	peacekeep* OR "united nation*" OR (UN AND uniformed*)	4730
s2	(resilience or resiliency or resilient or strengths or coping or hardiness or adaptation) OR (stress AND reduction*)	338665
s8	S2 AND S3 AND S4 AND S5 AND S6 AND S7 [Source Types XAcademic Journals]	13

Search number	Search Cochrane 9th March 2021	Totals (review)
2	(combat disorder* OR "stress disorder*" OR "posttraumatic" OR "ptsd"):ti,ab,kw	51
39	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer*):ti,ab,kw	1085
40	(preventi* OR "prevention intervention*" OR pretrauma*):ti,ab,kw	2681
41	(prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training"):ti,ab,kw	8066
42	(peacekeep* OR "united nation*" OR (UN AND uniformed*)):ti,ab,kw	6
43	(resilience OR (stress AND reduction)):ti,ab,kw	162
44	#2 AND #39 AND #40 AND #41 AND #42 AND #43	0
45	#2 AND #39 AND #40 AND #41 AND #42	0

Prevention of PTSD in UN peace operations – police personnel

Search number	Search Scopus 10th March 2021	Totals
1	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
9	TITLE-ABS-KEY (police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*) AND PUBYEAR > 1989	105722
3	TITLE-ABS-KEY (preventi* OR "prevention intervention*" OR pretrauma*) AND PUBYEAR > 1989	1413557
4	TITLE-ABS-KEY (prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training") AND PUBYEAR > 1989	3231857
5	TITLE-ABS-KEY (peacekeep* OR ("united nation") OR (un OR uniformed*)) AND PUBYEAR > 1989	345951
6	TITLE-ABS-KEY (resilience OR (stress AND reduction)) AND PUBYEAR > 1989	295837
10	#1 + #9 + #3-6	0
11	#1 + #9 + #3-5	1

Search number	Search PubMed 9th March 2021	Totals
2	"combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract]	72118
11	"police*"[Title/Abstract] OR "law officer*"[Title/Abstract] OR "law enforcement*"[Title/Abstract] OR "garda"[Title/Abstract] OR "gendarme"[Title/Abstract] OR "patrol*"[Title/Abstract]	21524
4	"preventi*"[Title/Abstract] OR "prevention intervention*"[Title/Abstract] OR "pretrauma*"[Title/Abstract]	893018
5	"prevention"[Title/Abstract] OR "resilience"[Title/Abstract] OR "prophylaxis"[Title/Abstract] OR "modifiable factor*"[Title/Abstract] OR "stress control"[Title/Abstract] OR "educati*"[Title/Abstract] OR "stress inoculation training"[Title/Abstract]	1269705
7	"peacekeep*"[Title/Abstract] OR "united nation"[Title/Abstract] OR ("UN"[Title/Abstract] AND "uniformed*"[Title/Abstract])	698
8	"resilience"[All Fields] OR "resiliences"[All Fields] OR "resiliencies"[All Fields] OR "resiliency"[All Fields] OR "resilient"[All Fields] OR "resilients"[All Fields] OR (("stress"[All Fields] OR "stressed"[All Fields] OR "stresses"[All Fields] OR "stressful"[All Fields] OR "stressfulness"[All Fields] OR "stressing"[All Fields]) AND ("reduction"[All Fields] OR "reductions"[All Fields]))	113855
12	#2 + #11 + #4 + #5 + #7 + #8	0
13	#2 + #11 + #4 + #5 + #7	0

Search number	Search PsycINFO 9th March 2021	Totals
S7	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder)	60709
s9	(Police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*)	34223
s5	(prevention or intervention or treatment or program) OR (prevent or intervention or treatment or program) OR pretrauma*	1635302
s4	(prevention or intervention or treatment or program) OR (resilience or resiliency or resilient) OR prophylaxis OR modifiable factor* OR stress control OR educati* OR stress inoculation training ptsd	2170598
s3	peacekeep* OR "united nation*" OR (UN AND uniformed*)	4730
s2	(resilience or resiliency or resilient or strengths or coping or hardiness or adaptation) OR (stress AND reduction*)	338665
s10	S2 AND S3 AND S4 AND S5 AND S7 AND S9	0
s11	S3 AND S4 AND S5 AND S7 AND S9	1

Search number	Search Cochrane 9th March 2021	Totals (review)
2	(combat disorder* OR "stress disorder*" OR "posttraumatic" OR "ptsd"):ti,ab,kw	51
46	(police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme* OR patrol*):ti,ab,kw	20
40	(preventi* OR "prevention intervention*" OR pretrauma*):ti,ab,kw	2681
41	(prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training"):ti,ab,kw	8066
42	(peacekeep* OR "united nation*" OR (UN AND uniformed*)):ti,ab,kw	6
43	(resilience OR (stress AND reduction)):ti,ab,kw	162
47	#2 AND #40 AND #41 AND #42 AND #43 AND #46	0
48	#2 AND #40 AND #41 AND #42 AND #46	0

Current best practices for preventing PTSD and effectiveness, military personnel

Search number	Search Scopus 10th March 2021	Totals
1	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
2	TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989	1159324
3	TITLE-ABS-KEY (preventi* OR "prevention intervention*" OR pretrauma*) AND PUBYEAR > 1989	1413557
4	TITLE-ABS-KEY (prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training") AND PUBYEAR > 1989	3231857
15	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18593804
16	#1-4 + #15	404
17	#1-4 + #16 + preferred study types	115

Search number	Search PubMed 9th March 2021	Totals
47	"combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]	73479
25	"Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract] OR "air force*"[Title/Abstract]	227269
4	"preventi*"[Title/Abstract] OR "prevention intervention*"[Title/Abstract] OR "pretrauma*"[Title/Abstract]	873018
5	"prevention"[Title/Abstract] OR "resilience"[Title/Abstract] OR "prophylaxis"[Title/Abstract] OR "modifiable factor*"[Title/Abstract] OR "stress control"[Title/Abstract] OR "educati*"[Title/Abstract] OR "stress inoculation training"[Title/Abstract]	1269705
23	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7957293
53	#47 + #25 + #4 + #5 + #23	27

Search number	Search PsycINFO 9th March 2021	Totals
s9	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60783
s10	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen?e OR troop* OR constable* OR constabular* OR officer*) OR "air force*"	162475
s4	(prevention or intervention or treatment or program) OR (prevent or intervention or treatment or program) OR pretrauma*	1635302
s3	(prevention or intervention or treatment or program) OR (resilience or resiliency or resilient) OR prophylaxis OR modifiable factor* OR stress control OR educati* OR stress inoculation training ptsd	2170598
s11	effect* OR outcome* OR effectiveness*	1724288
s16	AB (S3 AND S4 AND S9 AND S10 AND S11) OR TI (S3 AND S4 AND S9 AND S10 AND S11) OR KW (S3 AND S4 AND S9 AND S10 AND S11)	2773
s17	s16 AND best practices	15
s15	AB (S3 AND S4 AND S9 AND S10 AND S11) AND TI (S3 AND S4 AND S9 AND S10 AND S11) AND KW (S3 AND S4 AND S9 AND S10 AND S11)	37

Search number	Search Cochrane 9th March 2021	Totals (review)
51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
52	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen* e OR troop* OR constable* OR constabular* OR officer* OR "air force*"):ti,ab,kw	1087
40	(preventi* OR "prevention intervention*" OR pretrauma*):ti,ab,kw (Word variations have been searched)	2681
41	(prevention* OR resilience* OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training"):ti,ab,kw	2871
53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8163
54	#51 AND #52 AND #40 AND #41 AND #53	2

Current best practices for preventing PTSD and effectiveness, police personnel

Search number	Search Scopus 10th March 2021	Totals
1	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
9	TITLE-ABS-KEY (police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*) AND PUBYEAR > 1989	105722
3	TITLE-ABS-KEY (preventi* OR "prevention intervention*" OR pretrauma*) AND PUBYEAR > 1989	1413557
4	TITLE-ABS-KEY (prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training") AND PUBYEAR > 1989	3231857
15	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18593804
19	#1 + #9 + #3 + #4 + #15	29

Search number	Search PubMed 9th March 2021	Totals
47	"combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]	73479
11	"police*"[Title/Abstract] OR "law officer*"[Title/Abstract] OR "law enforcement*"[Title/Abstract] OR "garda"[Title/Abstract] OR "gendarme"[Title/Abstract] OR "patrol*"[Title/Abstract]	21531
4	"preventi*"[Title/Abstract] OR "prevention intervention*"[Title/Abstract] OR "pretrauma*"[Title/Abstract]	873018
5	"prevention"[Title/Abstract] OR "resilience"[Title/Abstract] OR "prophylaxis"[Title/Abstract] OR "modifiable factor*"[Title/Abstract] OR "stress control"[Title/Abstract] OR "educati*"[Title/Abstract] OR "stress inoculation training"[Title/Abstract]	1269705
23	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7957293
59	#47 + #11 + #4 + #5 + #23	6

Search number	Search PsycINFO 9th March 2021	Totals
s9	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60783
s18	Police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme* OR patrol*	29294
s4	(prevention or intervention or treatment or program) OR (prevent or intervention or treatment or program) OR pretrauma*	1635302
s3	(prevention or intervention or treatment or program) OR (resilience or resiliency or resilient) OR prophylaxis OR modifiable factor* OR stress control OR educati* OR stress inoculation training ptsd	2170598
s11	effect* OR outcome* OR effectiveness*	1724288
s19	S3 AND S4 AND S9 AND S11 AND S18	229
s20	TI (S3 AND S4 AND S9 AND S11 AND S18) OR AB (S3 AND S4 AND S9 AND S11 AND S18) OR KW (S3 AND S4 AND S9 AND S11 AND S18)	80
s21	TI (S3 AND S4 AND S9 AND S11 AND S18) AND AB (S3 AND S4 AND S9 AND S11 AND S18) AND KW (S3 AND S4 AND S9 AND S11 AND S18)	0
S26	TI (S3 AND S4 AND S9 AND S11 AND S18) OR AB (S3 AND S4 AND S9 AND S11 AND S18) Narrow by Subject: - treatment outcomes Narrow by Subject: - treatment Narrow by Subject: - responses Narrow by Subject: - resilience (psychological) Narrow by Subject: - military veterans Narrow by Subject: - mental disorders	37

	Narrow by Subject: - job performance Narrow by Subject: - health outcomes Narrow by Subject: - emotional states Narrow by Subject: - early intervention Narrow by Subject: - defense mechanisms Narrow by Subject: - complex ptsd Narrow by Subject: - adjustment disorders Narrow by Subject: - protective factors Narrow by Subject: - posttraumatic stress Narrow by Subject: - mental health Narrow by Subject: - law enforcement Narrow by Subject: - exposure Narrow by Subject: - emotional trauma Narrow by Subject: - symptoms Narrow by Subject: - posttraumatic stress disorder Narrow by Subject: - police personnel Search modes - Boolean/Phrase	

Search number	**Search Cochrane 9th March 2021**	**Totals (review)**
51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
46	(police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme* OR patrol*):ti,ab,kw	20
40	(preventi* OR "prevention intervention*" OR pretrauma*):ti,ab,kw (Word variations have been searched)	2681
41	(prevention* OR resilience* OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training"):ti,ab,kw	2871
53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8163
55	#51 AND #46 AND #40 AND #41 AND #53	1

Current best practices for preventing PTSD and effectiveness, general population

Search number	Search Scopus 10th March 2021	Totals
1	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
3	TITLE-ABS-KEY (preventi* OR "prevention intervention*" OR pretrauma*) AND PUBYEAR > 1989	1413557
4	TITLE-ABS-KEY (prevention OR resilience OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training") AND PUBYEAR > 1989	3231857
15	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18593804
21	#1-4 + #15	1668
22	#1-4 + #15 + preferred study type: Cohort Studies	44

Search number	Search PubMed 9th March 2021	Totals
47	"combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]	73479
4	"preventi*"[Title/Abstract] OR "prevention intervention*"[Title/Abstract] OR "pretrauma*"[Title/Abstract]	873018
5	"prevention"[Title/Abstract] OR "resilience"[Title/Abstract] OR "prophylaxis"[Title/Abstract] OR "modifiable factor*"[Title/Abstract] OR "stress control"[Title/Abstract] OR "educati*"[Title/Abstract] OR "stress inoculation training"[Title/Abstract]	1269705
23	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7957293
64	#47 + #4 + #5 + #23	95

Search number	Search PsycINFO 9th March 2021	Totals
s9	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60783
s4	(prevention or intervention or treatment or program) OR (prevent or intervention or treatment or program) OR pretrauma*	1635302
s3	(prevention or intervention or treatment or program) OR (resilience or resiliency or resilient) OR prophylaxis OR modifiable factor* OR stress control OR educati* OR stress inoculation training ptsd	2170598
s11	effect* OR outcome* OR effectiveness*	1724288
s29	S3 AND S4 AND S9 AND S11	17926
s30	TI (S3 AND S4 AND S9 AND S11) OR AB (S3 AND S4 AND S9 AND S11) OR KW (S3 AND S4 AND S9 AND S11)	12051
s32	TI (S3 AND S4 AND S9 AND S11) OR AB (S3 AND S4 AND S9 AND S11) OR KW (S3 AND S4 AND S9 AND S11)	532
s35	TI (S3 AND S4 AND S9 AND S11) AND AB (S3 AND S4 AND S9 AND S11)	524
S36	s35 + meta analysis + systematic review + Publication Year: 1990-2021	36

Search number	Search Cochrane 9th March 2021	Totals (review)
51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
40	(preventi* OR "prevention intervention*" OR pretrauma*):ti,ab,kw (Word variations have been searched)	2681
41	(prevention* OR resilience* OR prophylaxis OR "modifiable factor*" OR "stress control" OR educati* OR "stress inoculation training"):ti,ab,kw	2871
53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8163
56	#51 AND #40 AND #41 AND #53	16

Approaches used for mitigation of PTSD in UN peace operations, military personnel

Search number	Search Scopus 22th March 2021	Totals
#2	TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989	3062
#3	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
#4	TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989	1164650
#1	TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989	13481043
#5	(TITLE-ABS-KEY ("outcome assessment") AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (effect*) AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (intervention) AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (trial*) AND PUBYEAR > 1989)	18507564
#6	#2 AND #1	1587
#7	#2 AND #3	58
#8	#2 AND #4	983
#9	#2 AND #5	946
#10	#1 AND #2 AND #16 AND #24 AND #27	13

Search number	Search PubMed 22th March 2021	Totals
#3	("Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract] OR "air force*"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	193677
#2	("combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	65040
#1	("peacekeep*"[Title/Abstract] OR "united nation"[All Fields] OR ("UN"[Title/Abstract] AND "uniformed*"[All Fields])) AND (1990/1/1:2021/3/10[pdat])	756
#4	"treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]	7581244
#5	("outcome assessment"[All Fields] OR "effect*"[All Fields] OR "intervene*"[All Fields] OR "trial*"[All Fields]) AND (booksdocs[Filter] OR meta-analysis[Filter] OR review[Filter] OR systematicreview[Filter])	1104705
#6	#1 AND #2	84
#7	#1 AND #3	348
#8	#1 AND #4	349
#9	#1 AND #5	44
#10	#1 AND #2 AND #3 AND #4 AND #5	2

Search number	Search PsycINFO 18th March 2021	Totals
#1	TX peacekeeping* OR united nations OR un OR uniformed personnel OR veteran*	76754
#2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	58867
#3	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen?e OR troop* OR constable* OR constabular* OR officer*) OR "air force*"	125056
#4	KW Treatment OR KW theory OR KW intervention OR KW trial OR KW mitigation OR KW management OR KW exposure	429845
#5	KW outcome assessment, health care OR KW trial OR KW mitigation OR KW intervention OR KW effects	139284
#6	S1 AND S2	11597
#7	S1 AND S3	42333
#8	S1 AND S4	10649
#9	S1 AND S5	2916
#10	S1 AND S2 AND S3 AND S4 AND S5	299

Search number	Search Cochrane 22th March 2021	Totals (review)
#5	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
#4	(treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*)	8542
#3	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*"):ti,ab,kw	127
#2	("outcome assessment" OR effect* OR intervene* OR trial*)	8446
#1	(peacekeep* OR (united AND nation) OR UN OR humanitarian OR uniformed*)	8011
#6	#1 AND #2	8011
#7	#1 AND #3	125
#8	#1 AND #4	8011
#9	#1 AND #5	51
#10	#1 AND #2 AND #3 AND #4 AND #5	5

Approaches used for mitigation of PTSD in UN peace operations, police personnel

Search number	Search Scopus 22th March 2021	Totals
#2	TITLE-ABS-KEY (peacekeep* OR united AND nations OR un OR uniformed AND personnel) AND PUBYEAR > 1989	3062
#3	(TITLE-ABS-KEY ("combat disorder*") OR TITLE-ABS-KEY ("stress disorder*") OR TITLE-ABS-KEY ("posttraumatic*") OR TITLE-ABS-KEY (post-traumatic) OR TITLE-ABS-KEY ("post traumatic") OR TITLE-ABS-KEY (ptsd)) AND PUBYEAR > 1989	112001
#11	police OR law AND officer OR law AND enforcement OR garda OR gendarme OR patrolmen AND PUBYEAR > 1989	162647
#5	(TITLE-ABS-KEY ("outcome assessment") AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (effect*) AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (intervention) AND PUBYEAR > 1989) OR (TITLE-ABS-KEY (trial*) AND PUBYEAR > 1989)	18507564
#1	TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989	13481043
#6	#2 AND #1	1587
#7	#2 AND #3	58
#12	#2 AND #11	103
#9	#2 AND #5	946
#13	#1 AND #2 AND #3 AND #5 AND #11	12

Search number	Search PubMed 22th March 2021	Totals
#11	("patrolmen"[All Fields] OR ("police"[MeSH Terms] OR "police"[All Fields] OR "polices"[All Fields] OR "police s"[All Fields] OR "policed"[All Fields] OR "policing"[All Fields]) OR (("jurisprudence"[MeSH Terms] OR "jurisprudence"[All Fields] OR "law"[All Fields]) AND ("office"[All Fields] OR "office s"[All Fields] OR "officer"[All Fields] OR "officer s"[All Fields] OR "officers"[All Fields] OR "offices"[All Fields])) OR ("law enforcement"[MeSH Terms] OR ("law"[All Fields] AND "enforcement"[All Fields]) OR "law enforcement"[All Fields]) OR "gendarme"[All Fields] OR "garda"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	18075
#2	("combat disorder*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "ptsd"[Title/Abstract] OR "combat trauma*"[Title/Abstract]) AND (1990/1/1:2021/3/10[pdat])	65040
#1	("peacekeep*"[Title/Abstract] OR "united nation"[All Fields] OR ("UN"[Title/Abstract] AND "uniformed*"[All Fields])) AND (1990/1/1:2021/3/10[pdat])	756
#4	"treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]	7581244
#5	("outcome assessment"[All Fields] OR "effect*"[All Fields] OR "intervene*"[All Fields] OR "trial*"[All Fields]) AND (booksdocs[Filter] OR meta-analysis[Filter] OR review[Filter] OR systematicreview[Filter])	1104705
#6	#1 AND #2	84
#12	#1 AND #11	9
#8	#1 AND #4	349
#9	#1 AND #5	44
#13	#1 AND #2 AND #11 AND #4 AND #5	0

Search number	Search PsycINFO 22th March 2021	Totals
#1	TX peacekeeping* OR united nations OR un OR uniformed personnel OR veteran*	76867
#2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	58916
#3	(police officers or law enforcement or cops or police) OR law officer OR garda OR gendarmerie OR patrolmen	30304
#4	KW Treatment OR KW theory OR KW intervention OR KW trial OR KW mitigation OR KW management OR KW exposure	430070
#5	KW outcome assessment, health care OR KW trial OR KW mitigation OR KW intervention OR KW effects	139381
#6	S1 AND S2	11608
#7	S1 AND S3	570
#8	S1 AND S4	10657
#9	S1 AND S5	2919
#10	S1 AND S2 AND S3 AND S4 AND S5	1

Search number	Search Cochrane 22th March 2021	Totals (review)
#5	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
#4	(treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*)	8542
#11	(police):ti,ab,kw OR (law enforcement):ti,ab,kw OR (garda or gendarme):ti,ab,kw OR (patrolmen):ti,ab,kw OR (law officer):ti,ab,kw	17
#2	("outcome assessment" OR effect* OR intervene* OR trial*)	8446
#1	(peacekeep* OR (united AND nation) OR UN OR humanitarian OR uniformed*)	8011
#6	#1 AND #2	8011
#7	#1 AND #11	16
#8	#1 AND #4	8011
#9	#1 AND #5	51
#10	#1 AND #2 AND #3 AND #4 AND #5	1

Current best practices for mitigating PTSD and their effectiveness, military personnel

Search number	Search Scopus 17th March 2021	Totals
#1	TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989	108271
#2	TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989	15125562
#3	TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989	1162675
#4	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18650828
#5	TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989	3440988
#6	#1-4	5631
#7	#6 NOT #5	4799
#10	((TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989)) AND NOT (TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (EXACTKEYWORD, "Clinical Trial") OR LIMIT-TO (EXACTKEYWORD, "Cohort Studies"))	474
#11	((TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY ("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen*e OR troop* OR constable* OR constabular* OR officer* OR "air force*") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989)) AND NOT (TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (EXACTKEYWORD, "Clinical Trial") OR LIMIT-TO (EXACTKEYWORD, "Cohort Studies")) AND (LIMIT-TO (EXACTKEYWORD, "Posttraumatic Stress Disorder") OR LIMIT-TO (EXACTKEYWORD, "Stress Disorders, Post-Traumatic") OR LIMIT-TO (EXACTKEYWORD, "PTSD") OR LIMIT-TO (EXACTKEYWORD, "Post-traumatic Stress Disorder"))	424

Search number	Search PubMed 22th March 2021	Totals
#1	("combat disorder*"[Title/Abstract] OR "combat trauma*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post-traumatic"[Title/Abstract] OR "ptsd"[Title/Abstract]) AND (stress disorders, post traumatic[MeSH Terms])	25847
#2	"treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]	8868611
#3	"Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract] OR "air force*"[Title/Abstract]	227787
#4	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7974095
#5	"child*"[Title/Abstract] OR "teen*"[Title/Abstract] OR "adolescen*"[Title/Abstract]	1666143

#6	#1-4	1760
#7	((("combat disorder*"[Title/Abstract] OR "combat trauma*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post-traumatic"[Title/Abstract] OR "ptsd"[Title/Abstract]) AND "stress disorders, post traumatic"[MeSH Terms] AND ("treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]) AND ("Military personnel"[Title/Abstract] OR "militar*"[Title/Abstract] OR "veteran*"[Title/Abstract] OR "soldier*"[Title/Abstract] OR "navy"[Title/Abstract] OR "marine*"[Title/Abstract] OR "armed"[Title/Abstract] OR ("defen"[All Fields] AND "e"[Title/Abstract]) OR "troop*"[Title/Abstract] OR "constable*"[Title/Abstract] OR "constabular*"[Title/Abstract] OR "officer*"[Title/Abstract] OR "air force*"[Title/Abstract]) AND ("effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract])) NOT ("child*"[Title/Abstract] OR "teen*"[Title/Abstract] OR "adolescen*"[Title/Abstract])) AND ((clinicaltrial[Filter] OR meta-analysis[Filter] OR randomizedcontrolledtrial[Filter] OR systematicreview[Filter]) AND (1990:2021[pdat]))	417

Search number	**Search PsycINFO 23th March 2021**	**Totals**
s2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60933
s3	treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*	1907068
s1	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen?e OR troop* OR constable* OR constabular* OR officer*) OR "air force*"	162743
s4	effect* OR outcome* OR effectiveness	1727938
s5	child* OR teen* OR adolescen*	1152859
s6	TI s2 AND AB s2	32357
s7	S1 AND S3 AND S4	33088
s8	TI s7 OR AB s7 OR KW s7	14050
s9	(TI s7 OR AB s7 OR KW s7) AND (S6 AND S8)	2761
s10	TI s5 OR AB s5 OR KW s5	882421
s11	s9 NOT s10	2556
s13	s9 NOT s10	199

Search number	**Search Cochrane 17th March 2021**	**Totals (review)**
#51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
#57	(treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*)	8482
#52	("Military personnel" OR militar* OR veteran* OR soldier* OR navy OR marine* OR armed OR defen* e OR troop* OR constable* OR constabular* OR officer* OR "air force*"):ti,ab,kw	1087
#53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8167
#58	(child* OR teen* OR adolescen*):ti,ab,kw	2614
#59	#51 AND #57 AND #52 AND #53	9
#60	#59 NOT #58"	4

Current best practices for mitigating PTSD and their effectiveness, police personnel

Search number	Search Scopus 17th March 2021	Totals
#1	TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989	108271
#2	TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989	15125562
#11	TITLE-ABS-KEY (police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*) AND PUBYEAR > 1989	106029
#4	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18650828
#5	TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989	3440988
#16	#1, 2, 11, 4	277
#19	((TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*) AND PUBYEAR > 1989)) AND NOT (TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (EXACTKEYWORD, "Randomized Controlled Trial") OR LIMIT-TO (EXACTKEYWORD, "Systematic Review") OR LIMIT-TO (EXACTKEYWORD, "Clinical Trial") OR LIMIT-TO (EXACTKEYWORD, "Cohort Studies"))	32

Search number	Search PubMed 12th March 2021	Totals
#1	"combat disorder*"[Title/Abstract] OR "combat trauma*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post-traumatic"[Title/Abstract] OR "ptsd"[All Fields]	73523
#2	"treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]	8852647
#8	"police*"[Title/Abstract] OR "law officer*"[Title/Abstract] OR "law enforcement*"[Title/Abstract] OR "garda"[Title/Abstract] OR "gendarme"[Title/Abstract] OR "patrol*"[Title/Abstract]	21549
#4	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7961089
#10	#1+ #2 + #4 + #8	112
#23	#1+ #2 + #4 + #8 AND (clinicaltrial[Filter] OR meta-analysis[Filter] OR randomizedcontrolledtrial[Filter] OR systematicreview[Filter])	25
#3	"child*"[Title/Abstract] OR "teen*"[Title/Abstract] OR "adolescen*"[Title/Abstract]	1664164
#8	#23 NOT #3	23

Search number	Search PsycINFO 17th March 2021	Totals
s1	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60856
s2	treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*	1905052
s5	Police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme OR patrol*	29322
s3	effect* OR outcome* OR effectiveness	1726213
s4	child* OR teen* OR adolescen*	1151980
s6	S1 AND S2 AND S3 AND S5	296
s7	TI s6 OR AB s6 OR KW s6	193

s8	s4 OR AB s4 OR KW s4	881693
s9	s7 NOT s8	165
s10	s7 NOT s8 (Limits -Publication Year: 1990-2021; meta analysis, clinical trial, systematic review	3

Search number	Search Cochrane 9th March 2021	Totals (review)
51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
57	(treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*)	8482
46	(police* OR "Law officer*" OR "law enforcement*" OR garda OR gendarme* OR patrol*):ti,ab,kw	20
53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8167
58	(child* OR teen* OR adolescen*):ti,ab,kw	2614
61	#51 AND #57 AND #53 AND #46	1

Current best practices for mitigating PTSD and their effectiveness, general population

Search number	Search Scopus 17th March 2021	Totals
#1	TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989	108271
#2	TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989	15125562
#4	TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989	18650828
#5	TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989	3440988
#20	#1, 2, 4	37567
#23	((TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989)) AND NOT (TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (EXACTKEYWORD, "Systematic Review") OR LIMIT-TO (EXACTKEYWORD, "Meta Analysis"))	1152
#24	((TITLE-ABS-KEY ("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd") AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*) AND PUBYEAR > 1989) AND (TITLE-ABS-KEY (effect* OR outcome OR effectiveness) AND PUBYEAR > 1989)) AND NOT (TITLE-ABS-KEY (child* OR teen* OR adolescen*) AND PUBYEAR > 1989) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (EXACTKEYWORD, "Systematic Review") OR LIMIT-TO (EXACTKEYWORD, "Meta Analysis")) AND (LIMIT-TO (EXACTKEYWORD, "Posttraumatic Stress Disorder") OR LIMIT-TO (EXACTKEYWORD, "Stress Disorders, Post-Traumatic") OR LIMIT-TO (EXACTKEYWORD, "PTSD") OR LIMIT-TO (EXACTKEYWORD, "Post-traumatic Stress Disorder"))	860

Search number	Search PubMed 22th March 2021	Totals
#1	("combat disorder*"[Title/Abstract] OR "combat trauma*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post-traumatic"[Title/Abstract] OR "ptsd"[Title/Abstract]) AND (stress disorders, post traumatic[MeSH Terms])	25847
#2	"treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]	8868611
#4	"effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract]	7974095
#5	"child*"[Title/Abstract] OR "teen*"[Title/Abstract] OR "adolescen*"[Title/Abstract]	1666143
#13	#1 + #2 + #4	7022
#17	((("combat disorder*"[Title/Abstract] OR "combat trauma*"[Title/Abstract] OR "stress disorder*"[Title/Abstract] OR "posttraumatic*"[Title/Abstract] OR "post traumatic*"[Title/Abstract] OR "post-traumatic"[Title/Abstract] OR "ptsd"[Title/Abstract]) AND "stress disorders, post traumatic"[MeSH Terms] AND ("treatment*"[Title/Abstract] OR "therap*"[Title/Abstract] OR "intervention*"[Title/Abstract] OR "trial*"[Title/Abstract] OR "mitigation*"[Title/Abstract] OR "management*"[Title/Abstract] OR "expos*"[Title/Abstract]) AND ("effect*"[Title/Abstract] OR "outcome"[Title/Abstract] OR "effectiveness"[Title/Abstract])) NOT ("child*"[Title/Abstract] OR "teen*"[Title/Abstract] OR "adolescen*"[Title/Abstract])) AND (meta-analysis[Filter] OR systematicreview[Filter])	337

Search number	Search PsycINFO 23rd March 2021	Totals
s2	"combat disorder*" OR "stress disorder*" OR "posttraumatic*" OR (ptsd or post traumatic stress disorder or posttraumatic stress disorder or post-traumatic stress disorder) OR "combat trauma*"	60933
s3	treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*	1907068
s4	effect* OR outcome* OR effectiveness	1727938
s5	child* OR teen* OR adolescen*	1152859
s6	TI s2 AND AB s2	32357
s8	S3 AND S4	887324
s9	TI s8 OR AB s8 OR KW s8	666080
s7	TI s5 OR AB s5 OR KW s5	882421
s10	S6 AND S9	9852
s11	S10 NOT s7	7766
s13	S10 NOT s7 (Limits - Publication Year: 1990-2021; meta analysis, systematic review)	321

Search number	Search Cochrane 17th March 2021	Totals (review)
51	("combat disorder*" OR "combat trauma*" OR "stress disorder*" OR "posttraumatic*" OR "post traumatic*" OR "post-traumatic" OR "ptsd"):ti,ab,kw	51
57	(treatment* OR therap* OR intervention* OR trial* OR mitigation* OR management* OR expos*)	8482
53	(effect* OR outcome* OR effectiveness):ti,ab,kw	8167
58	(child* OR teen* OR adolescen*):ti,ab,kw	2614
62	#51 AND #57 AND #53	51
63	#62 NOT #58	34

7. Appendix 3. Flow diagrams for study selection process

Figure 1. Flow diagram for the study selection process for examination of probability of PTSD among military personnel following deployment for a UN peace operation and average time from repatriation to recognition of PTSD.

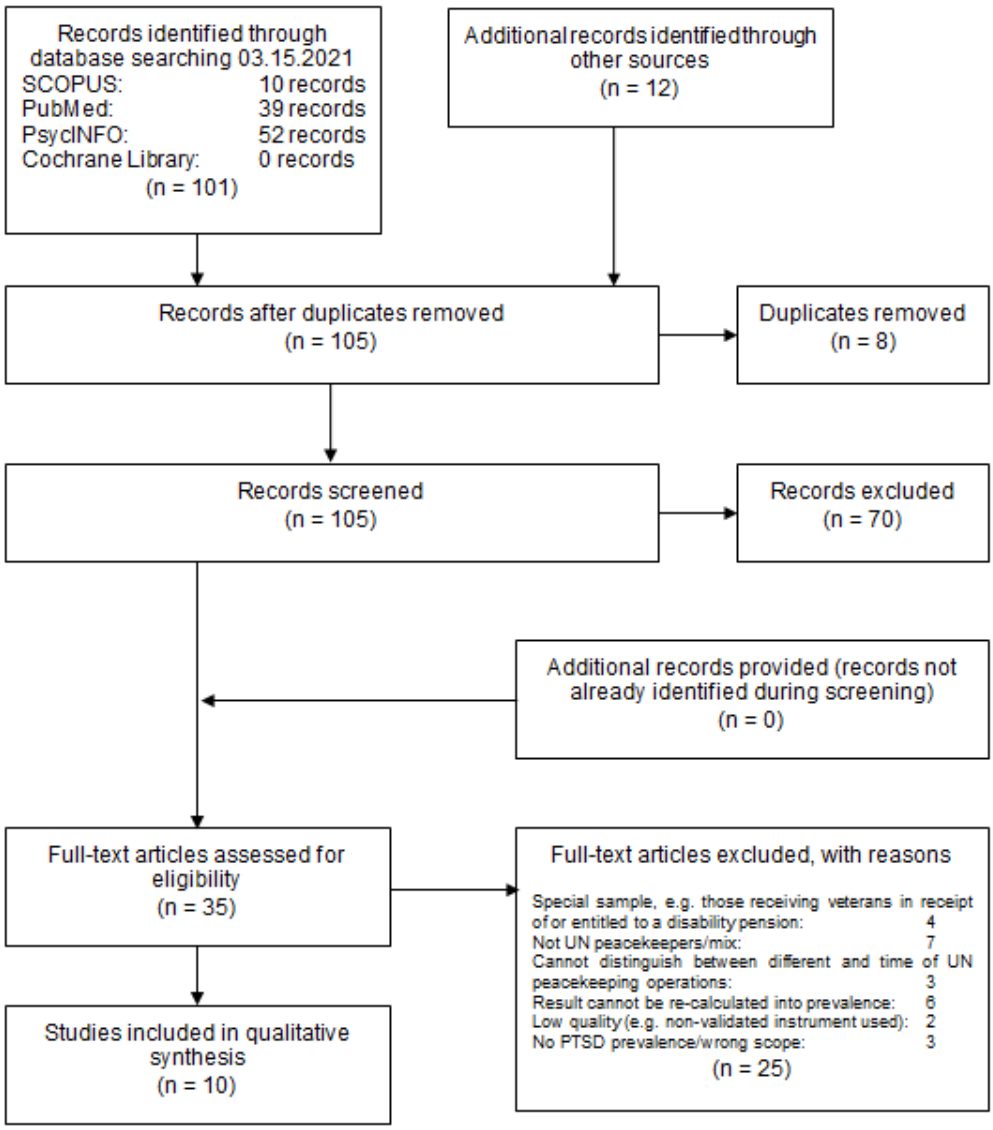


Figure 2. Flow diagram for the study selection process for examination of probability of PTSD among police personnel following deployment for a UN peace operation and average time from repatriation to recognition of PTSD.

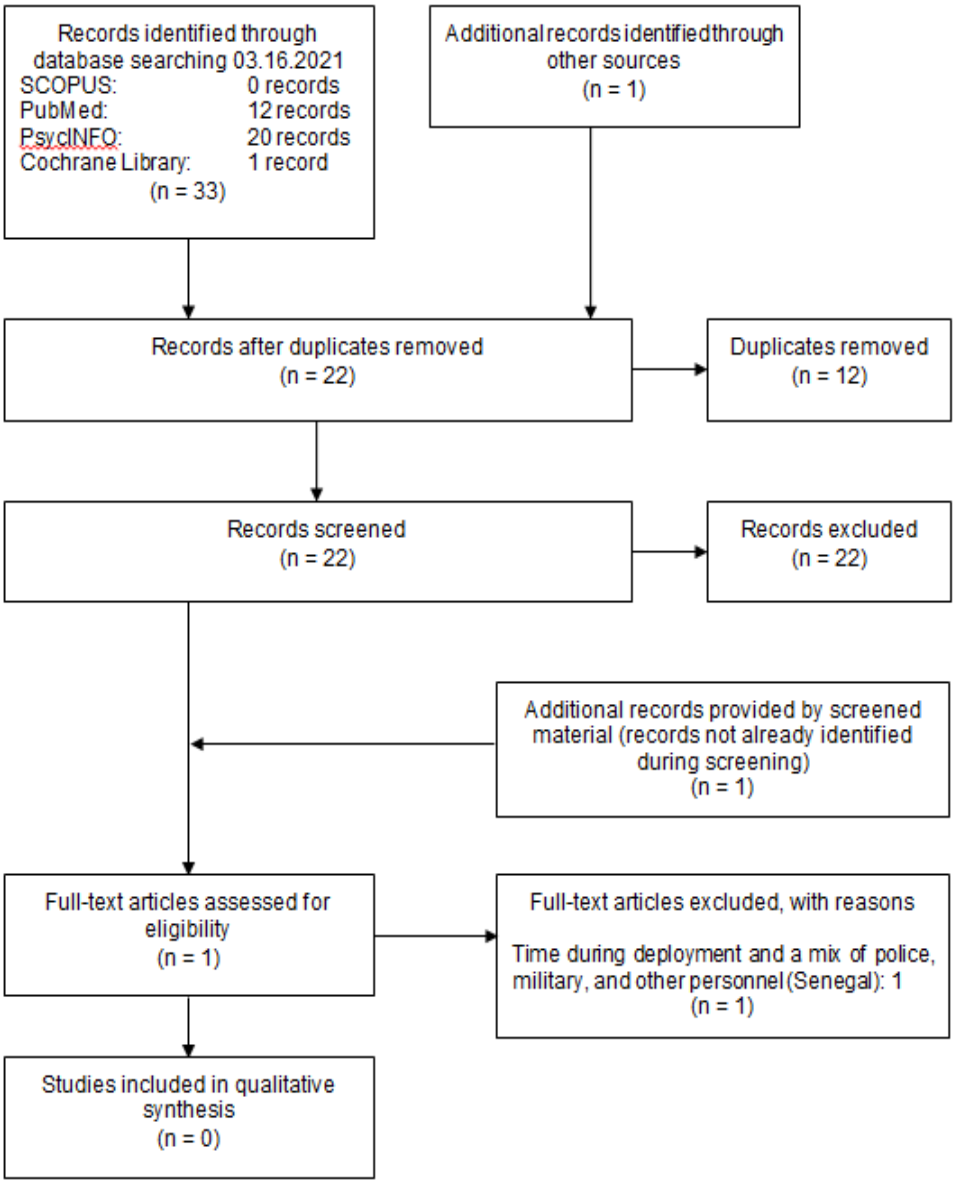


Figure 3. Flow diagram for the study selection process for examining prevention of PTSD in UN peace operations – military personnel.

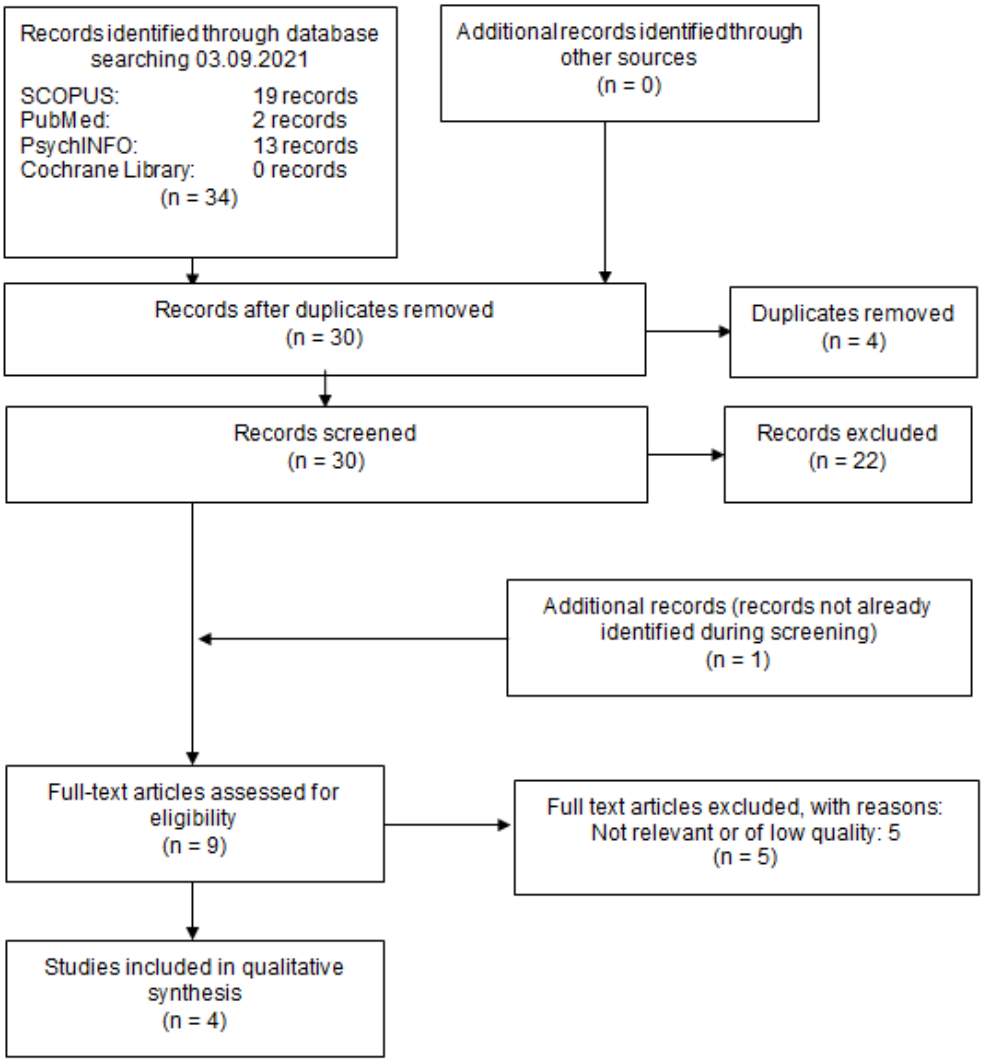


Figure 4. Flow diagram for the study selection process for examining prevention of PTSD in UN peace operations – police personnel.

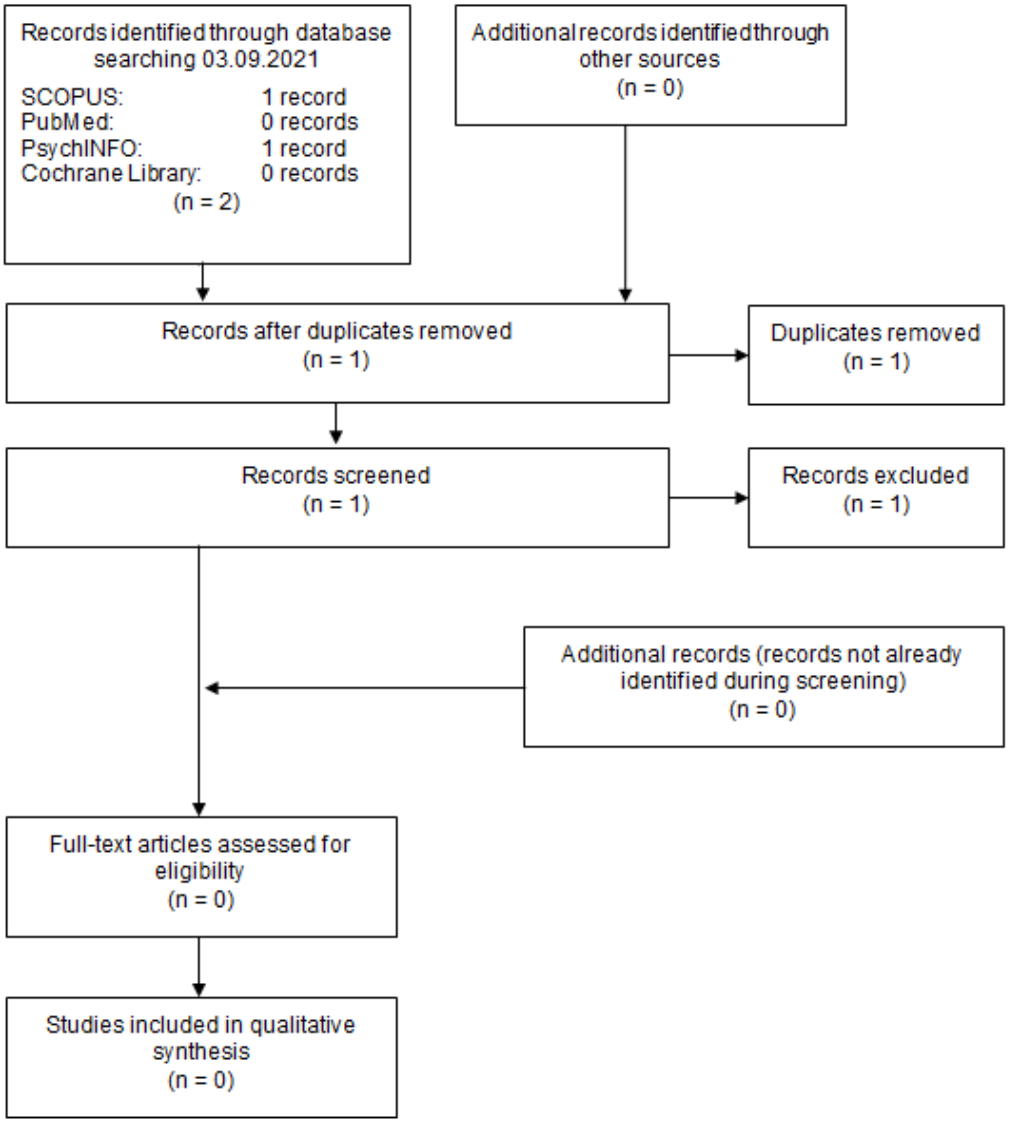


Figure 5. Flow diagram for the study selection process for examining current best practice for preventing PTSD and effectiveness - military personnel.

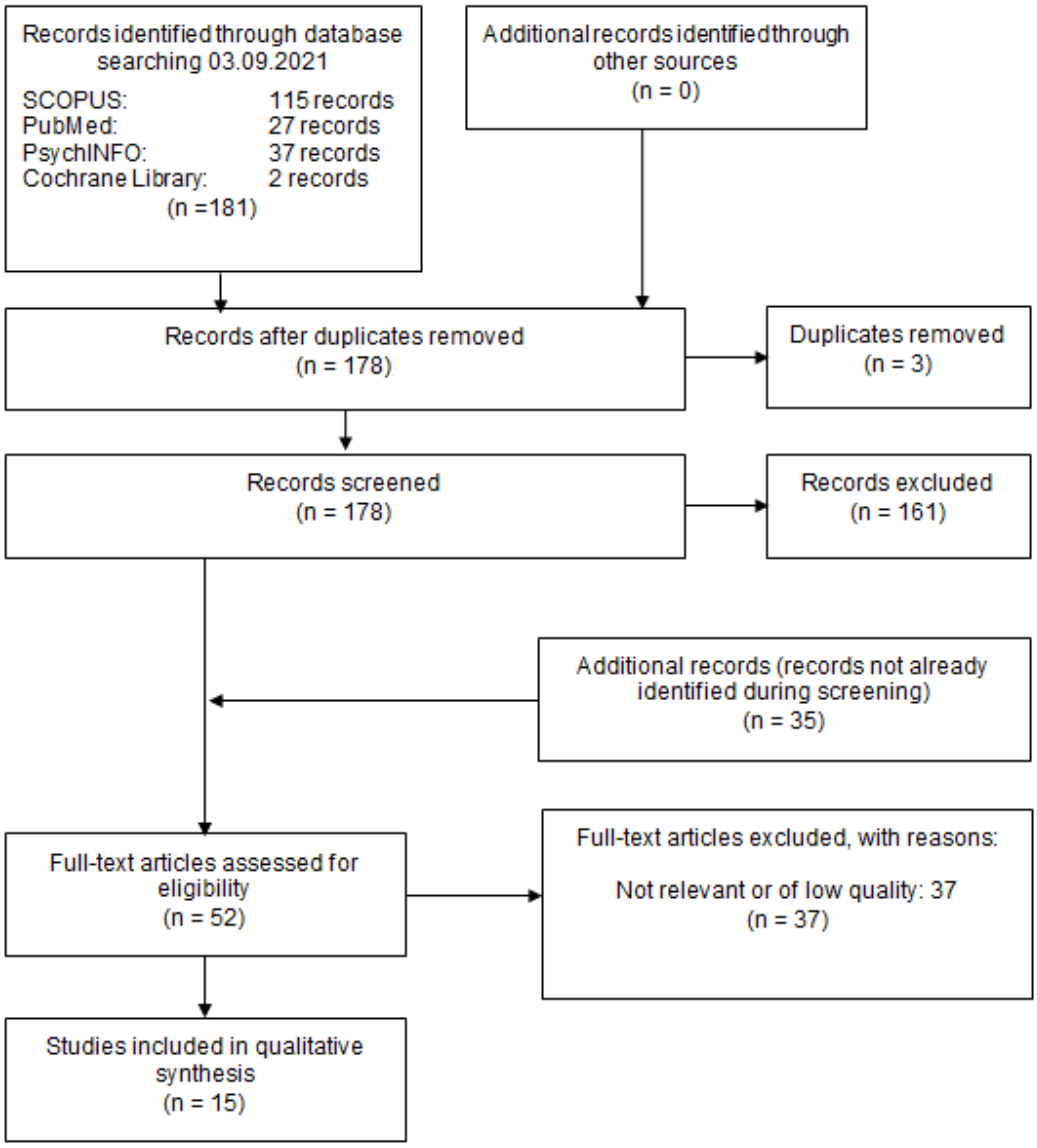


Figure 6. Flow diagram for the study selection process for examining current best practice for preventing PTSD and effectiveness - police personnel.

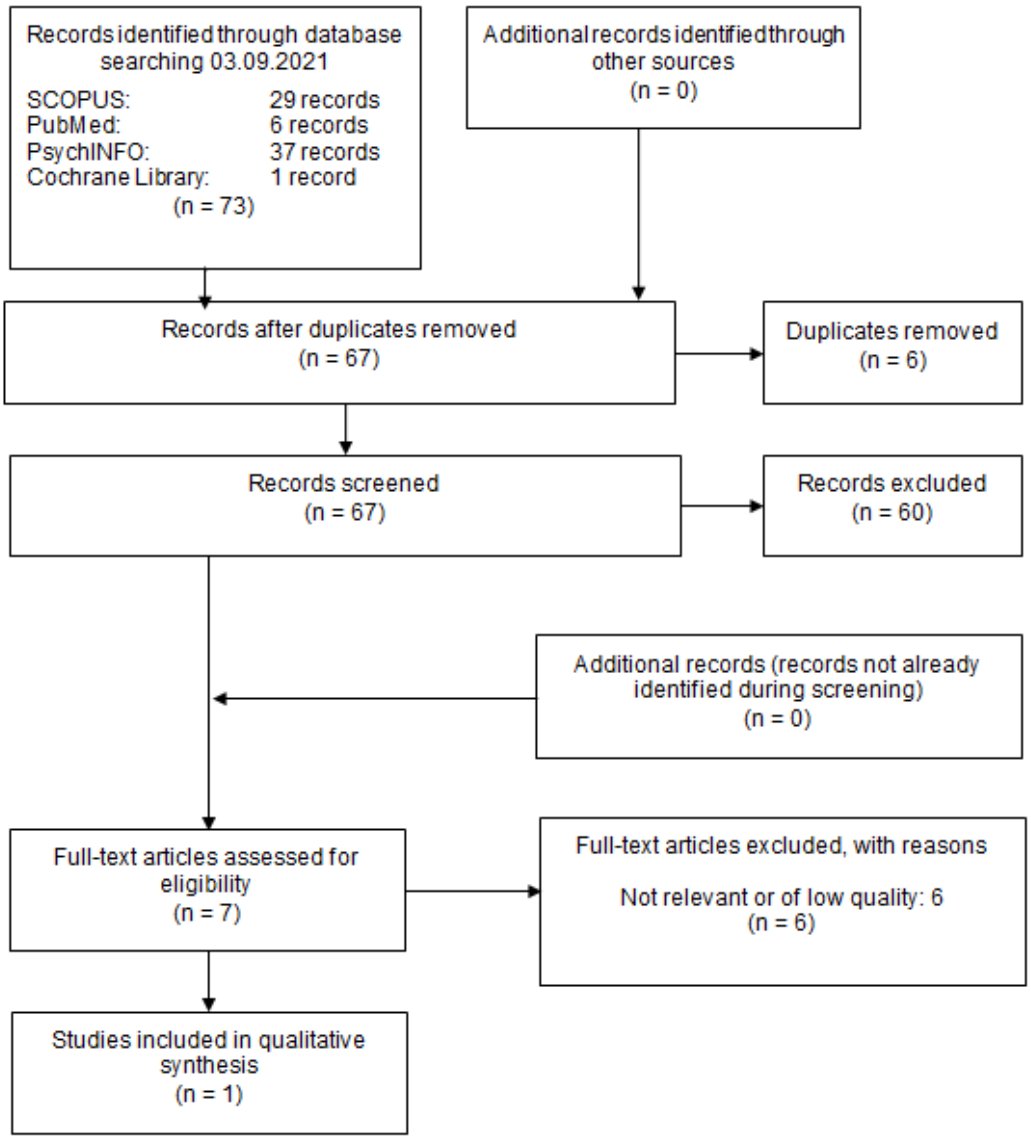


Figure 7. Flow diagram for the study selection process for examining current best practice for preventing PTSD and effectiveness – general.

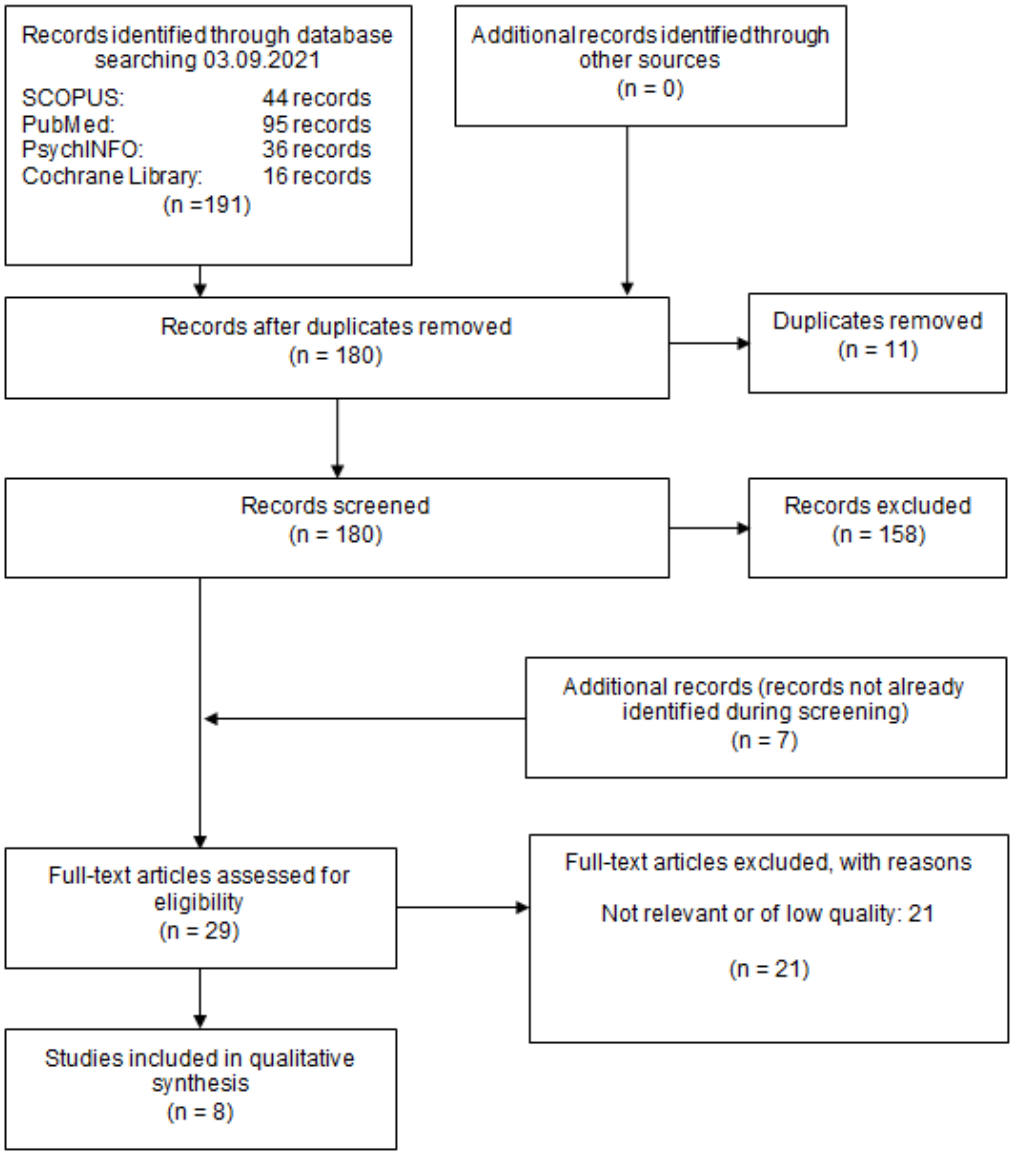


Figure 8. Flow diagram for the study selection process for examining mitigation of PTSD in UN peace operations – military personnel.

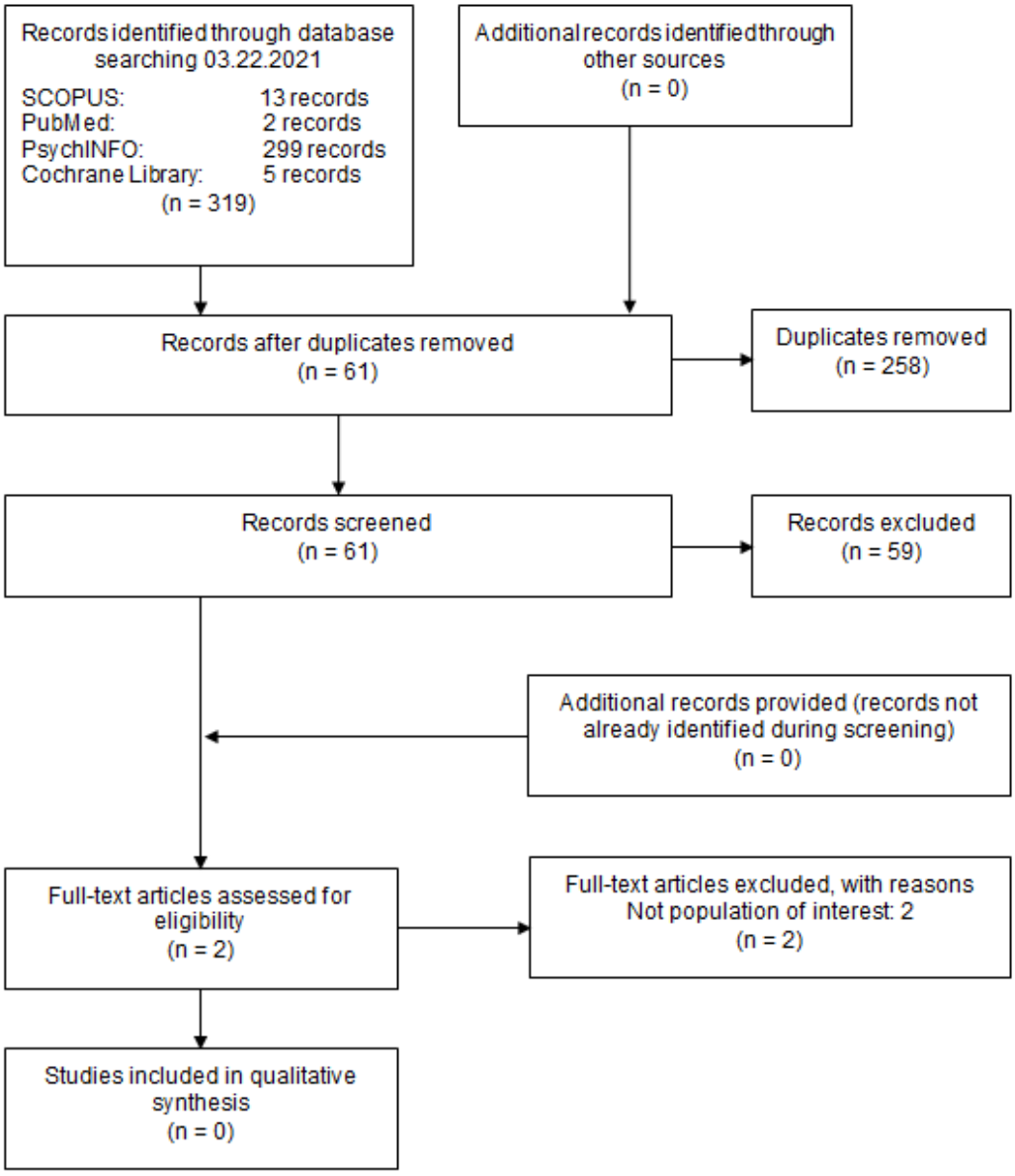


Figure 9. Flow diagram for the study selection process for examining mitigation of PTSD in UN peace operations – police personnel.

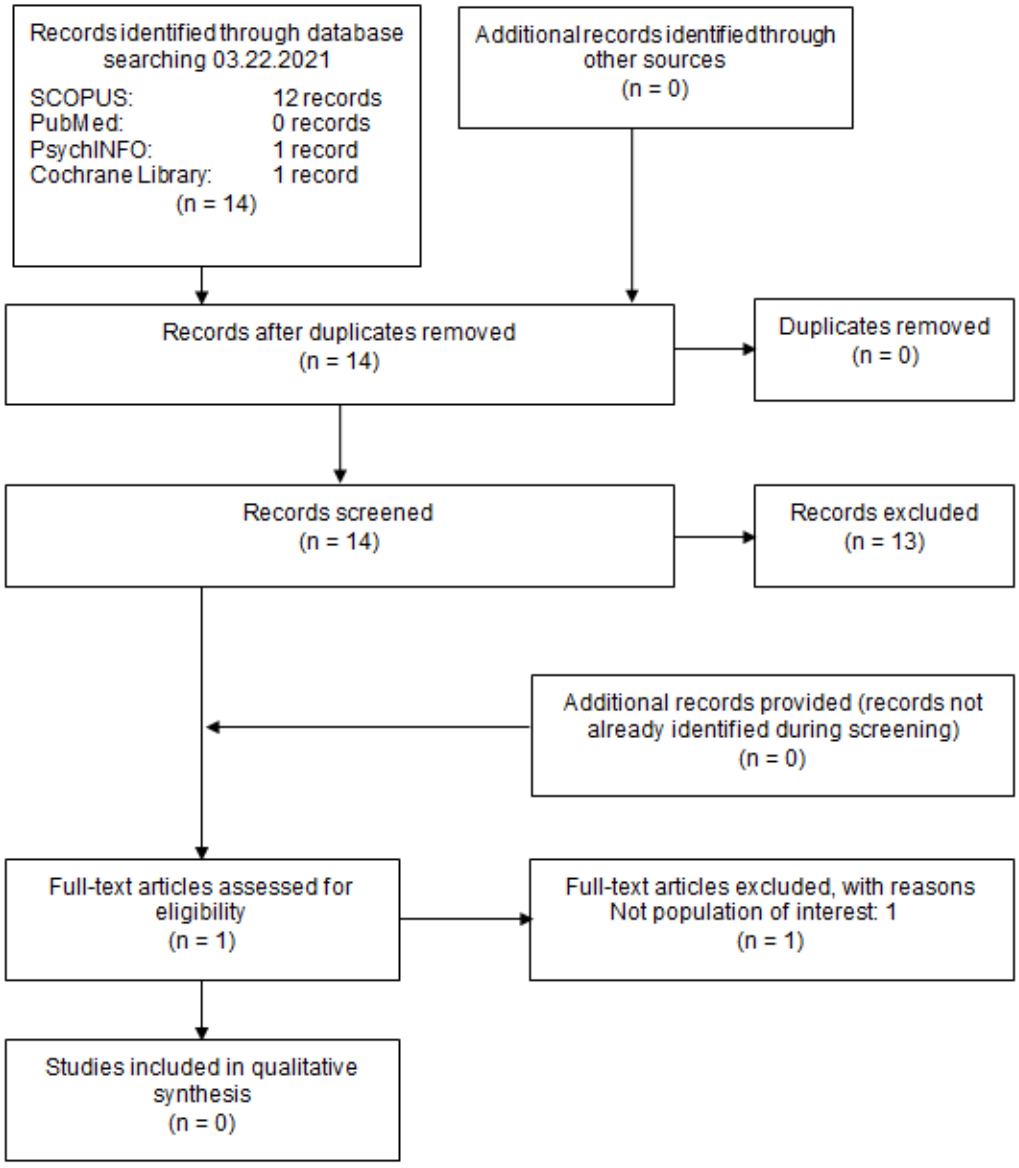


Figure 10. Flow diagram for the study selection process for examining current best practice for mitigation of PTSD and effectiveness - military personnel

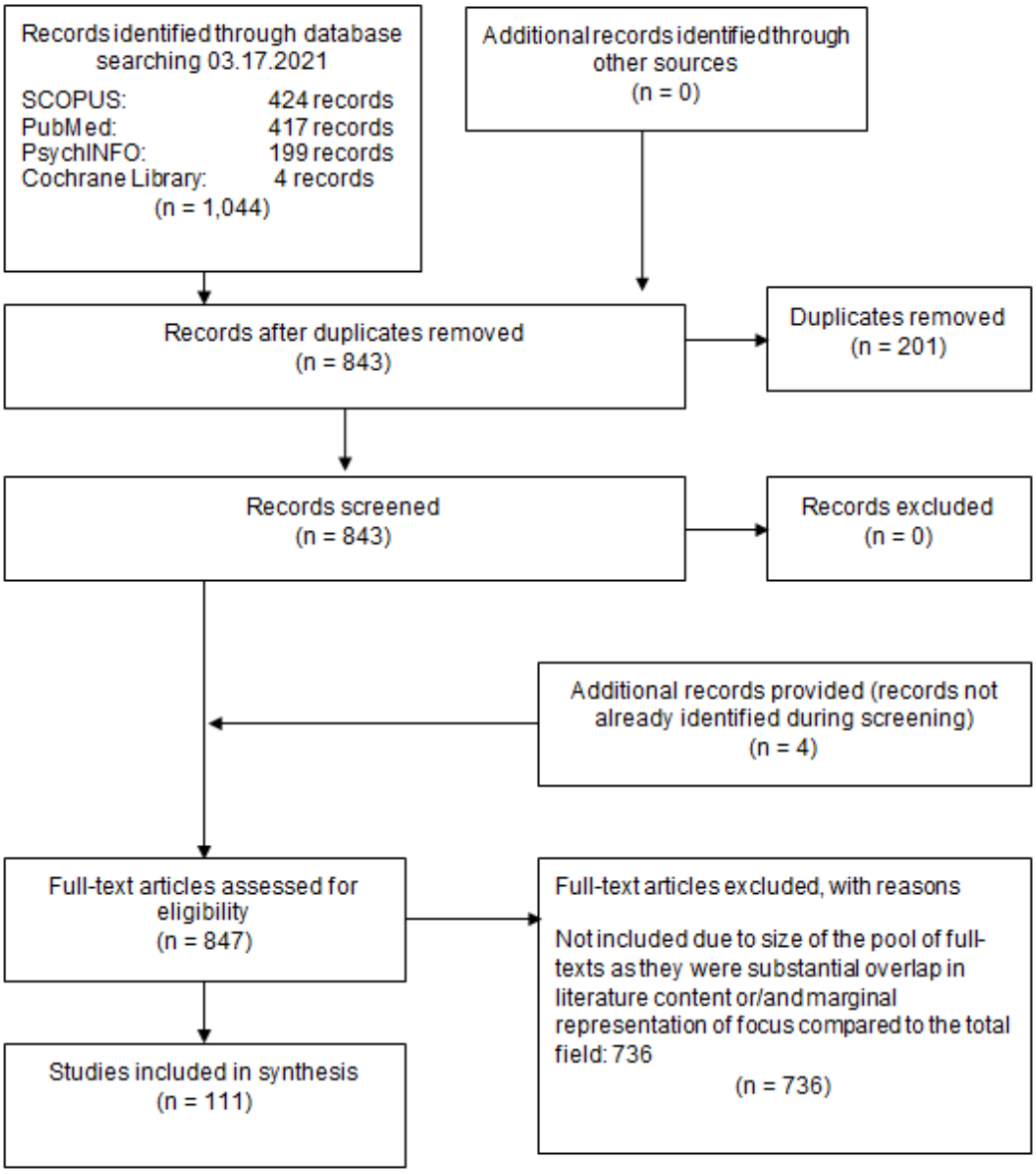


Figure 11. Flow diagram for the study selection process for examining current best practice for mitigation of PTSD and effectiveness - police personnel.

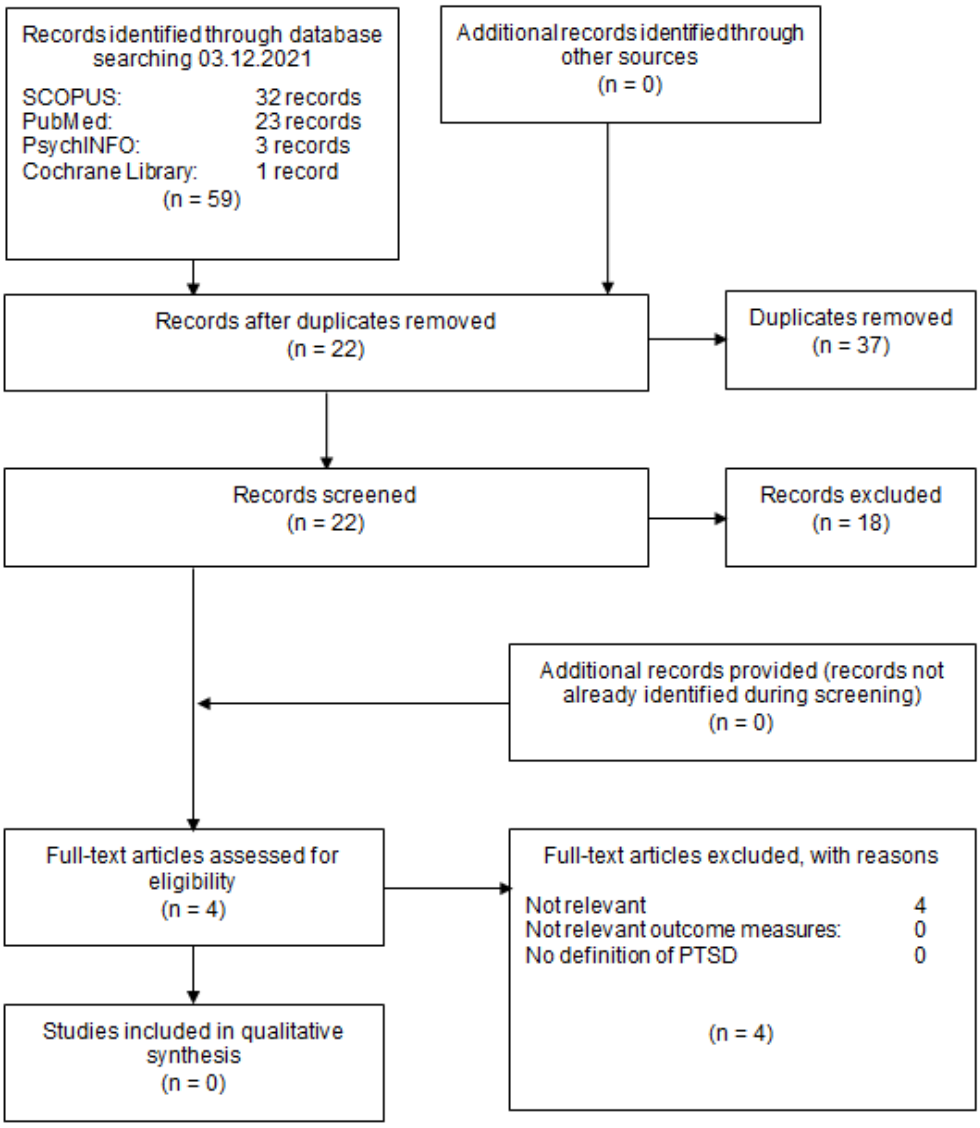
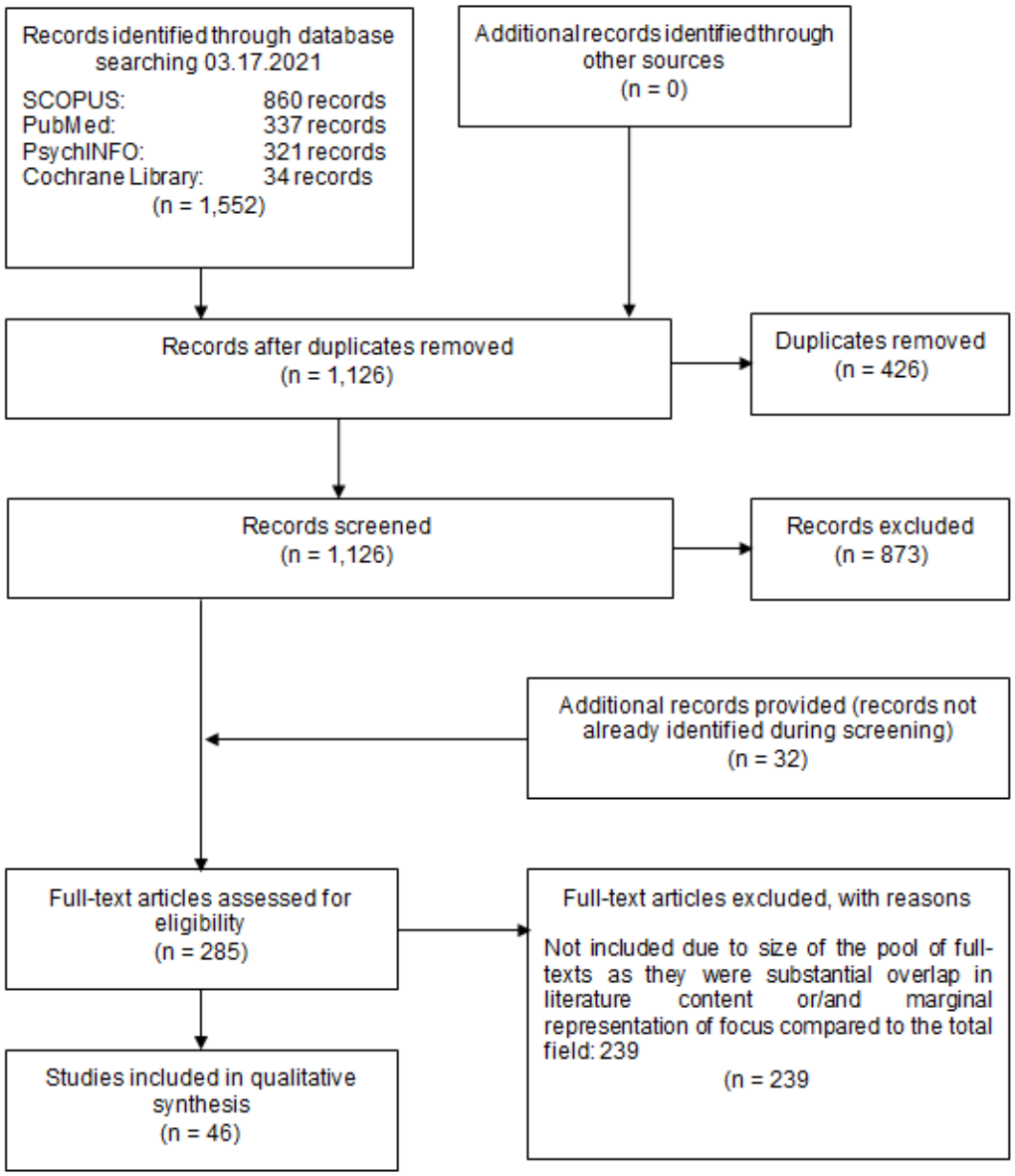


Figure 12. Flow diagram for the study selection process for examining current best practice for mitigation of PTSD and effectiveness – general.



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