

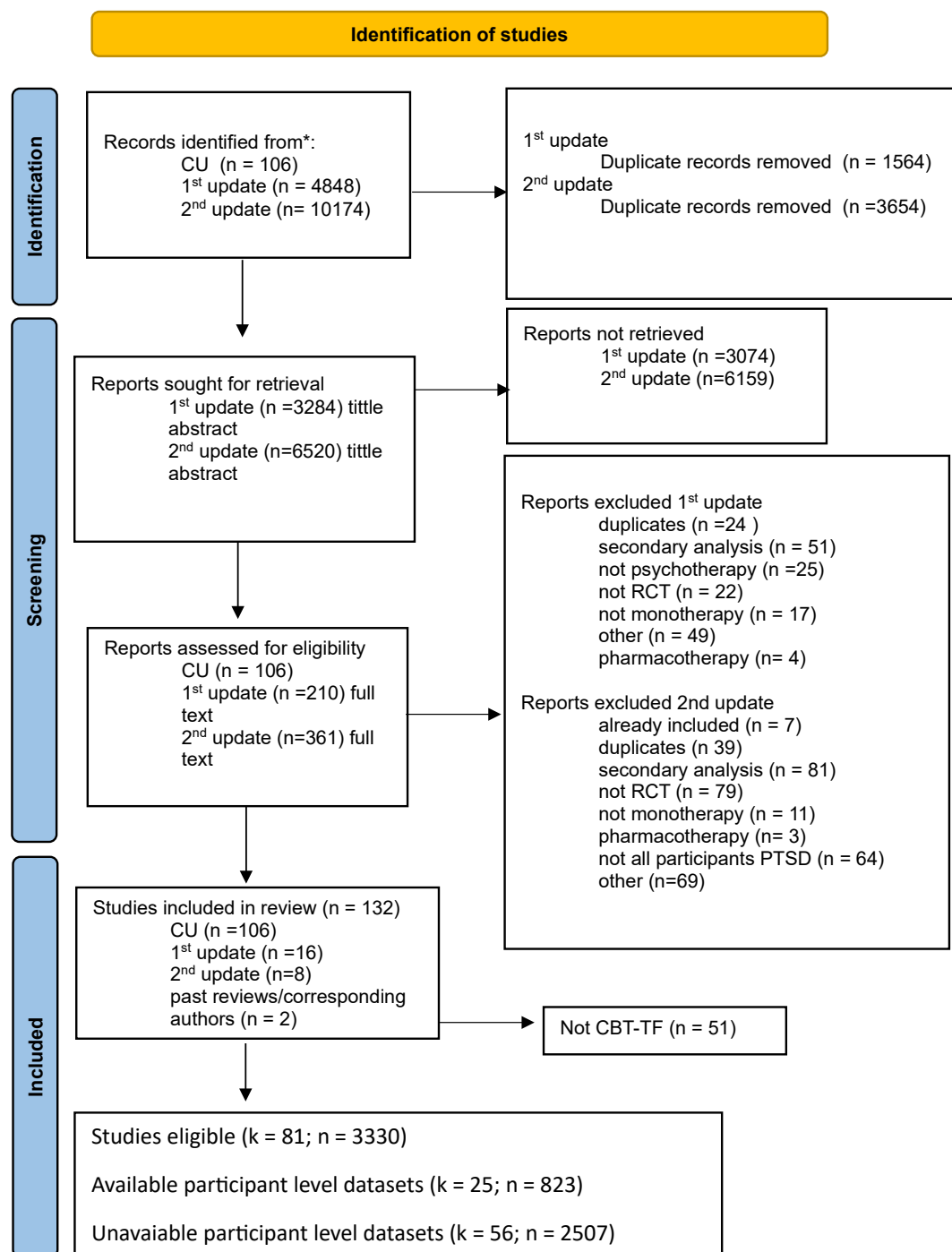
## Appendix 1

Example of the academic database search (PubMed)

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((((((((((("Stress Disorders, Post-Traumatic"[Mesh]) OR (((PTSD OR "acute stress disorder*" OR "combat disorder*" OR "war neuros*")))) OR (((acute OR traumatic) AND stress*) AND (expos* OR psyc*))) OR (((posttrauma* or post-trauma* or "post trauma*") AND (stress* or disorder* or psych* or symptom?)))) OR ((("traumatised victim" OR "traumatized victim" OR "traumatised victim" OR "traumatised survivor" OR "traumatized survivor")) OR ((trauma* AND (event or memor* or flashback* or nightmare)))) OR (((trauma* or posttrauma* or post-trauma* or victim* or survivor?) AND (exposure AND (therap* or psychotherap* or training or counsel*)))) OR crisis intervention[MeSH Terms] OR (((("critical incident" AND (stress or debrief* or de-brief)))) OR ((debrief*[Title] OR de-brief*[Title])) OR (("crisis intervention" or CISD)) OR (((stress or group* or psychological or crisis) AND (debrief* or de-brief*)))) OR ((trauma* AND (event or memor* or flashback* or nightmare)))) OR ((EMDR or "eye movement desensitisation and reprocessing" or "eye movement desensitization and reprocessing")) AND (((("randomized controlled trial"[Publication Type]) OR "controlled clinical trial"[Publication Type]) OR ((randomized[Title/Abstract] OR randomised[Title/Abstract])) OR placebo[Title/Abstract]) OR ((Randomly or random))) OR trial[Title/Abstract])
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## Appendix 2

## Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) Individual Patient Data (IPD) Study Selection Process



CU = Cardiff University; CBT-TF = cognitive behavioral therapy with a trauma focus; RCT = randomized controlled trial; k = number of studies

### Appendix 3

#### Definintins of the CBT-TF interventions for PTSD

Intervention	Description
Brief Eclectic Psychotherapy <sup>a</sup> <i>BEP</i>	BEP merges aspects of CBT with psychodynamic therapy, emphasizing the emotional processing of trauma. It often incorporates writing exercises, therapeutic correspondence, and discussions on existential topics, with a strong focus on the therapeutic relationship. The therapy typically concludes with a farewell ritual.
Cognitive Behavioural Therapy with a Trauma Focus <sup>b</sup> <i>CBT-TF</i>	CBT-TF encompasses various therapies aimed at assisting those with PTSD by altering their thoughts, beliefs, and behaviors. This method typically involves educational sessions, exposure exercises, cognitive techniques, and relaxation or stress management strategies, though the emphasis on each component may differ depending on the specific form of CBT-TF.
Cognitive Behavioural Therapy for Trauma-Focused Coping <sup>c</sup> <i>COPE</i>	COPE is tailored for treating individuals with both PTSD and substance use disorders. It integrates traditional CBT methods with trauma-focused strategies to address trauma and substance use simultaneously, helping individuals develop coping mechanisms, reduce substance use, and enhance overall functioning.
Cognitive Therapy for PTSD <sup>d</sup> <i>CPT</i>	CPT focuses on evaluating and modifying problematic thoughts that arise after traumatic events, such as beliefs that the individual is to blame or that the world is unsafe. It may also involve creating a detailed written narrative of the traumatic experience.
Narrative Exposure Therapy <sup>e</sup> <i>NET</i>	NET is designed for individuals with multiple or complex traumas. It involves creating a detailed life narrative, focusing on traumatic experiences to help integrate these memories into the broader life story, reducing their emotional impact.
Prolonged Exposure Therapy <sup>f</sup> <i>PE</i>	PE involves repeated and detailed exposure to trauma-related memories, feelings, and situations to reduce distress. The approach typically includes recounting traumatic experiences and real-life exposure to fear-evoking but safe situations to promote habituation.
Reconsolidation of Traumatic Memories <sup>g</sup> <i>RTM</i>	RTM involves activating a traumatic memory and then using a technique where the individual imagines the event as a black-and-white movie, dissociated from its content, and re-winds it quickly to change the memory's perspective.
Skills Training in Affective and Interpersonal Regulation with Narrative Therapy <sup>h</sup> <i>STAIR-NT</i>	STAIR-NT is a therapeutic method that combines emotional regulation skills training with narrative therapy to help individuals process and reframe their traumatic experiences, particularly in cases of complex trauma.
Trauma-Informed Present-Centered Safety Skills <sup>i</sup> <i>TIPSS</i>	TIPSS is a specialized CBT approach for individuals with PTSD who are not ready for trauma-focused exposure therapies. It focuses on developing safety skills, emotional regulation, and present-centered awareness, emphasizing coping strategies without delving deeply into traumatic details.
Trial-based cognitive therapy <sup>j</sup> <i>TBCBT</i>	TBCBT is a structured form of cognitive therapy designed to address and modify maladaptive beliefs and cognitive distortions that sustain PTSD. This therapy is conducted through a series of "trials," where patients critically assess their negative beliefs in a court-like setting, helping them to re-evaluate and restructure their thoughts.

PTSD = posttraumatic stress disorder; <sup>a</sup> Gersons, B. P. R., Meewisse, M. L., Nijdam, M. J., & Olf, M. (2011). Protocol Brief Eclectic Psychotherapy for Posttraumatic Stress Disorder (BEPP). Center for Psychological Trauma, Department of Psychiatry, Academic Medical Center at the University of Amsterdam, and Arq Psychotrauma Expert Group; <sup>b</sup> International Society for Traumatic Stress Studies. (2019b). IISTSS PTSD Guidelines – Methodology and Recommendations [https://istss.org/wp-content/uploads/2024/08/IISTSS\\_PreventionTreatmentGuidelines\\_FNL-March-19-2019.pdf](https://istss.org/wp-content/uploads/2024/08/IISTSS_PreventionTreatmentGuidelines_FNL-March-19-2019.pdf); <sup>c</sup> Back, S. E., Killeen, T., Badour, C. L., Flanagan, J. C., Allan, N. P., Ana, E. S., Lozano, B., Korte, K. J., Foa, E. B., & Brady, K. T. (2019). Concurrent treatment of substance use disorders and PTSD using prolonged exposure: A randomized clinical trial in military veterans. *Addict Behav*, 90, 369-377. <https://doi.org/10.1016/j.addbeh.2018.11.032>; <sup>d</sup> Resick, P. A., Monson, C. M., & Chard, K. M. (2017). *Cognitive processing therapy for PTSD: A comprehensive manual*. The Guilford Press; <sup>e</sup> Schauer, M., Neuner, F., & Elbert, T. (2011). *Narrative Exposure Therapy: A Short-Term Treatment for Traumatic Stress Disorders*. Hogrefe Publishing. <https://books.google.co.za/books?id=zUxfAqAAQBAJ>; <sup>f</sup> Foa, E. B., Hembree, E. A., Rothbaum, B. O., & Rauch, S. A. M. (2019). *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences: Therapist guide*, 2nd ed [doi:10.1093/med-psych/9780190926939.001.0001]. Oxford University Press. <https://doi.org/10.1093/med-psych/9780190926939.001.0001>; <sup>g</sup> Tylee, T., Gray, R., Glatt, S. J., & Bourke, F. (2017). Evaluation of the reconsolidation of traumatic memories protocol for the treatment of PTSD: A randomized, wait-list-controlled trial. *Journal of Military Veteran and Family Health* 3(1), 21-33. <https://doi.org/10.3138/jmvfh.4120>; <sup>h</sup> Cloitre, M., Koenen, K. C., Cohen, L. R., & Han, H. (2002). Skills training in affective and interpersonal regulation followed by exposure: a phase-based treatment for PTSD related to childhood abuse. *J Consult Clin Psychol*, 70(5), 1067-1074. <https://doi.org/10.1037/0022-006x.70.5.1067>; <sup>i</sup> Vujanovic, A. A., Smith, L. J., Green, C. E., Lane, S. D., & Schmitz, J. M. (2018). Development of a novel, integrated cognitive-behavioral therapy for co-occurring posttraumatic stress and substance use disorders: A pilot randomized clinical trial. *Contemp Clin Trials*, 65, 123-129. <https://doi.org/10.1016/j.cct.2017.12.013>; <sup>j</sup> Duran, É. P., Corchs, F., Vianna, A., Araújo, Á. C., Del Real, N., Silva, C., Ferreira, A. P., De Vito Francez, P., Godói, C., Silveira, H., Matsumoto, L., Gebara, C. M., de Barros Neto, T. P., Chilvarquer, R., de Siqueira, L. L., Bernik, M., & Neto, F. L. (2021). A randomized clinical trial to assess the efficacy of trial-based cognitive therapy compared to prolonged exposure for post-traumatic stress disorder: preliminary findings. *CNS spectrums*, 26(4), 427–434. <https://doi.org/10.1017/S1092852920001455>

## Appendix 4

### Available participant level data

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## Appendix 5

### Summary of study characteristics

Study	n	No. sessions	Specific type CBT-TF	Population	Country
Back2019	54	12	COPE	military personnel/veteran	USA
Bichescu2007	9	5	NET	general population	Romania
Butollo2015	67	15	CPT	general population	Germany
Capezzani2013	10	8	CBT-TF	general population	Italy
Cloitre2002	31	16	STAIR-NT	general population	USA
Cloitre2010	33	16	STAIR-NT	general population	USA
Deville1999	15	9	CBT-TF	general population	Australia
Duran2021a	51	13	PE	general population	Brazil
Duran2021b	44	13	TBCT	general population	Brazil
Ford2018	14	10	PE	military personnel/veteran	USA
Gamito2010	2	12	CBT-TF	military personnel/veteran	Portugal
Laugharne2016	10	12	PE	general population	Australia
Lee2002	12	7	CBT-TF	mixed	Australia
Lely2019	15	15	NET	general population	Netherlands
Markowitz2015	38	14	PE	mixed	USA
Monson2006	30	12	CPT	military personnel/veteran	USA
Nijdam2012	70	15	BEP	general population	Netherlands
Norman2019	63	16	COPE	military personnel/veteran	USA
Orang2018	24	15	NET	general population	Iran
Paunovic2011	14	20	CBT-TF	mixed	Sweden
Resick2002a	62	12	PE	general population	USA
Resick2002b	62	12	CPT	general population	USA
Schnyder2011	16	16	BEP	general population	Switzerland
Tylee2017	15	3	RTM	military personnel/veteran	USA
Vujanovica2018	31	12	TIPSS	general population	USA
Zang2013	11	4	NET	general population	China
Zang2014a	10	4	NET	general population	China
Zang2014b	10	4	NET-R	general population	China

COPE = Concurrent treatment of PTSD and substance use disorders using Prolonged Exposure; CPT = Cognitive Processing Therapy; CBT-TF = Cognitive Behavioral Therapy with a Trauma Focus; STAIR-NT = Skills Training in Affective and Interpersonal Regulation with Narrative Therapy; PE = Prolonged exposure therapy; BEP = Brief eclectic psychotherapy; NET = Narrative exposure therapy; NET = Narrative exposure therapy – revised; RTM = Reconsolidation of Traumatic Memories; TIPSS = Treatment of Integrated Posttraumatic Stress and Substance Use; mixed = both military personnel/veteran and general population; USA = United States of America.

**Appendix 6**

Summary of participant characteristics (N = 823)

	n (k)	M	SD
Age (years)	794 (25)	39.81	13.47
Years of education	429 (10)	14.06	2.74
		n	%
Age groups (years)	794 (25)		
18-29		219	27.58
30-39		196	24.69
40-49		178	24.69
50 to 59		137	17.25
60-69		45	5.67
70-80		19	2.39
Gender	822 (28)		
male		326	39.66
female		496	60.34
Race	353 (9)		
white		244	69.12
african american/black		91	25.78
other <sup>1</sup>		18	5.11
Relationship status	535 (19)		
single/ cohabitating		211	39.44
married		199	37.20
divorced		98	18.32
widowed		13	2.43
separated		14	2.62
Marital status	535 (19)		
unmarried		322	60.19
married		213	39.81
Employment status	289 (12)		
unemployed		73	25.26
employed		131	45.33
student		11	3.81
retired		21	7.27
homemaker		23	7.9
disabled		30	10.38
Psychotropic medication at baseline	528 (15)		
no		233	44.13
yes		295	55.87
Trauma type	469 (17)		
accident/disaster		79	16.84
assault: non-sexual		27	5.76
assault: sexual		98	20.90
military		75	15.99
war/persecution/terrorism		3	0.64
death someone close		32	6.82
injury someone close		2	0.43
domestic violence		54	11.51
witness violence other		18	3.84
stalking/harassment		13	2.77
medical-related		24	5.12
occupational trauma		40	8.53
loved one held hostage/kidnapped		3	0.64

psychological abuse		1	0.21
Comorbid MDD	360 (9)		
no		86	23.89
yes		274	76.11
Comorbid substance use problem (abuse or dependence)	434 (12)		
no		216	49.77
yes		218	50.23
Psychiatric comorbidity	566 (17)		
no		104	18.37
yes		462	81.63
Population	759 (22)		
General population		178	76.55
Military personnel/veteran		581	23.45
Dropout	823 (28)		
no		602	73.15
yes		221	26.85

*n* = number of participants; *k* = number of included study arms; <sup>1</sup>Mixed race, Asian, Native American or Pacific Islander; MDD = Major depressive disorder

**Appendix 7**

## Risk of bias assessment

Study	D1: Randomization process	D2: Deviations from intended intervention	D4: Measurement of the outcome
Back2019	low	low	low
Bichescu2007	low	low	low
Butollo2015	some concerns	low	low
Capezzani2013	low	some concerns	low
Cloitre2002	low	low	low
Cloitre2010	low	low	low
Devilly1999	some concerns	low	low
Duran2021	low	low	low
Ford2018	some concerns	some concerns	low
Gamito2010	some concerns	some concerns	low
Laugharne2016	low	low	low
Lee2002	low	low	low
Lely2019	low	low	low
Markowitz2015	low	low	low
Monson2006	low	low	low
Nijdam2012	low	low	low
Norman2019	low	low	low
Orang2018	some concerns	some concerns	low
Paunovic2011	some concerns	some concerns	low
Resick2002	some concerns	low	low
Schnyder2011	some concerns	low	low
Tylee2017	some concerns	low	low
Vujanovica2018	some concerns	low	low
Zang2013	low	some concerns	low
Zang2014	low	some concerns	low

**Appendix 8**

## Posthoc power analyses

Predictor	Bivariate model		Multivariate model	Parsimonious model
	n (k)	power	n (k) = 363 (11)	n (k) = 730 (22)
Age (continuous)	794 (25)	8.8%	6.7%	8.5%
Education (years)	429 (10)	9.60%	.	.
Male gender	822 (28)	31.3%	43.3%	.
Marital status (married)	535 (19)	98.8%	74.7%	.
Divorced versus other (single/married/cohabitating)	548 (19)	96.7%	.	.
Using psychotropic medication	528 (15)	50.8%	.	.
PTSD total severity	793 (27)	19.7%	8.6%	.
PTSD intrusion severity	499 (20)	87.7%	.	.
PTSD avoidance severity	485 (19)	35.9%	.	.
PTSD hyperarousal severity	486 (18)	7.3%	.	.
Substance use problem (abuse/dependence)	434 (12)	5.5%	.	.
Psychiatric comorbidity (anxiety, depression, substance use problem)	566 (17)	100%	5.4%	.
Population (military personnel/veterans)	759 (25)	100%	100%	100%

*n* = number of participants; *k* = number of included study arms