

Appendix 1: Literature Search Strategies

Clinical Literature Search

OVERVIEW

Interface: Ovid

Databases: MEDLINE All (1946-June 20, 2019)

Embase (1974-2019 June 20)

PsycINFO (1806 to June Week 2 2019)

Cochrane Central Register of Controlled Trials (May 2019)

Note: Subject headings have been customized for each database. Duplicates between databases

were removed in Ovid.

Date of Search: June 21, 2019

Alerts: Monthly search updates until project completion

Study Types: Randomized controlled trials, controlled clinical trials

Limits: Publication date limit: January 1, 2017-June 21, 2019

Humans

SYNTAX GUIDE

At the end of a phrase, searches the phrase as a subject heading

MeSH Medical Subject Heading
.fs Floating subheading
exp Explode a subject heading

Before a word, indicates that the marked subject heading is a primary topic;

or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings

Truncation symbol for one character

? Truncation symbol for one or no characters only

adj# Requires terms to be adjacent to each other within # number of words (in any order)

.ti Title
.ab Abstract

.hw Heading word; usually includes subject headings and controlled vocabulary

.kf Author keyword heading word (MEDLINE)
.kw Author keyword (Embase, Cochrane Cent)

.id. Author keyword (PsycINFO)

.pt Publication type
.mp Mapped term
.rn Registry number
.yr Publication year
.jw Journal word title

freq=# Requires terms to occur # number of times in the specified fields
medall Ovid database code: MEDLINE All, 1946 to present, updated daily
oemezd Ovid database code; Embase, 1974 to present, updated daily
cctr Ovid database code; Cochrane Central Register of Controlled Trials
psyh Ovid database code: PsycINFO 1806 to present, updated weekly



MULTI-D	ATABASE STRATEGY			
Line #	Search History			
1	Stress Disorders, Post-Traumatic/			
2	tress Disorders, Traumatic/			
3	Combat Disorders/			
4	Stress Disorders, Traumatic, Acute/			
5	((posttrauma* or post-trauma*) adj3 (stress* or disorder* or psych* or symptom*)).ti,ab,kw.			
6	PTSD.ti,ab,kw.			
7	(acute stress disorder* or combat disorder* or war neuros*).ti,ab,kw.			
8	or/1-7			
9	(android or app or apps or audio* or blog or iCBT or cCBT or i-CBT or c-CBT or CD-ROM or cell phone* or cellphone or chat or computer* or cyber* or distance* or DVD or eHealth or e-health or electronic health* or e-Portal or ePortal or etherap* or etherap* or forum* or gaming or information technolog* or instant messag* or internet* or interapy or ipad or i-pad or i-phone or i-phone or i-phone or i-phone or i-pod or web* or WWW or smart phone or smartphone or mobile phone* or e-mail* or email* or mHealth or m-health or mobile or multi-media or multimedia or online* or on-line or personal digital assistant* or PDA or SMS or social medi* or Facebook or software or telecomm* or telehealth* or telemed* or telemonitor* or telepsych*or teletherap* or text messag* or texting or tape or taped or video* or YouTube or podcast or virtual* or remote).ti,ab,kw.			
10	(self adj3 (care or change or guide* or help or intervention or manag* or support* or train*)).ti,ab,kw.			
11	9 or 10			
12	8 and 11			
13	limit 12 to yr="2017 -Current"			
14	posttraumatic stress disorder/			
15	(PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab,kw.			
16	(((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab,kw.			
17	(traumati#ed adj (victim? or survivor?)).ti,ab,kw.			
18	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,kw.			
19	((trauma* or posttrauma* or post-trauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab,kw.			
20	or/14-19			
21	(((internet or web or online) adj3 (cognitive or behavio*)) or iCBT or i-CBT or ePsych* or e-Psych* or cCBT or c-CBT).ti,ab,kw.			
22	(android or app or apps or blog* or CD-ROMor cell phone or cellphone or chat room or computer* or cyber* or digital or technology based or DVD or eHealth or e-health or electronic health or e-mail* or e-mail* or e-Portal or ePortal or eTherap* or e-therap* or forum* or gaming or information technolog* or instant messag* or messaging or internet* or ipad or i-pad or iphone or iphone or ipod or i-pod or podcast or smart phone or smartphone or social network* site* or social networking or mHealth or m-health or mobile or multi-media or multimedia or online* or on-line or personal digital assistant or PDA or SMS or social medi* or software or telecomm* or telehealth* or telemed* or telemonitor* or telepsych* or teletherap* or text messag* or texting or virtual* or web* or WWW).ti,ab,kw,hw.			
23	internet/			
24	blogging/ or e-mail/ or social media/ or text messaging/ or videoconferencing/ or webcast/ or wireless communication/			
25	telecommunication/ or teleconference/			
26	telemedicine/ or telehealth/ or telepsychiatry/ or teletherapy/			
27	mobile phone/ or smartphone/			



- 28 mobile application.hw.
- 29 *technology/
- 30 computer program/ or digital computer/ or personal computer/ or computer assisted therapy/
- 31 *computer/
- 32 (telecomm* or tele-comm*).ti,ab,kw.
- 33 (eLearning or blended learning).ti,ab,kw.
- 34 (videoconferenc* or video conferenc*).ti,ab,kw.
- 35 (synchronous or asynchronous or (electronic adj2 deliver*)).ti,ab,kw.
- 36 or/22-35
- (behavio* or cognitive).ti. or (psychotherap* or psychological therap* or cognitive behavio* or ((cognitive or behavio*) adj2 (activat* or component? or defusion or modif* or restructur* or technique* or intervention or treatment* or therap* or train*)) or ((acceptance* or commitment*) adj3 therap*) or rational emotive or RET or problem sol* or PST or problem focus* or solution focus* or trauma focus* or psychoeducat* or psycho-educat* or psychodrama or psycho-drama* or mindfulness* or third wave or self-control or (self* adj3 (control or efficacy)) or stress manage* or exposure or reality therap* or (anxiety adj3 (management or therap* or train*)) or relaxation or guided imagery or present cent* or person cent* or person* construct* or therapeutic process* or schema? or schemata or (thought* adj3 suppress*) or rumination).mp.
- 38 36 and 37
- 39 randomized controlled trial/
- 40 randomization.de.
- 41 controlled clinical trial/ and (Disease Management or Drug Therapy or Prevention or Rehabilitation or Therapy).fs.
- 42 *clinical trial/
- 43 placebo.de.
- 44 placebo.ti,ab.
- 45 trial.ti.
- 46 (randomi#ed or randomi#ation or randomi#ing).ti,ab,kw.
- 47 (RCT or "at random" or (random* adj3 (administ* or allocat* or assign* or class* or control* or determine* or divide* or division or distribut* or expose* or fashion or number* or place* or recruit* or subsitut* or treat*))).ti,ab,kw.
- 48 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj3 (blind\$ or mask\$ or dummy)).mp.
- 49 (control* and (trial or study or group) and (placebo or waitlist* or wait* list* or ((treatment or care) adj2 usual))).ti,ab,kw,hw.
- 50 or/39-49
- ((animal or nonhuman) not (human and (animal or nonhuman))).de.
- 52 50 not 51
- 53 20 and (21 or 38) and 52
- 54 (2017* or 2018* or 2019*).yr,dp,dt,ed,ep.
- 55 53 and 54
- Trauma and Stressor Related Disorders"/ or stress disorders, traumatic/ or combat disorders/ or psychological trauma/ or stress disorders, post-traumatic/ or stress disorders, traumatic, acute/
- 57 (PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab,kf.
- 58 (((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab,kf.
- 59 (traumati#ed adj (victim? or survivor?)).ti,ab,kf.
- 60 (trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,kf.



- 61 ((trauma* or posttrauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab,kf.
- 62 or/56-61
- 63 (((internet or web or online) adj3 (cognitive or behavio*)) or iCBT or i-CBT or ePsych* or e-Psych* or cCBT or c-CBT).ti,ab,kf.
- (android or app or apps or blog* or CD-ROMor cell phone or cellphone or chat room or computer* or cyber* or digital or technology based or DVD or eHealth or e-health or electronic health or e-mail* or email* or e-Portal or ePortal or eTherap* or e-therap* or forum* or gaming or information technolog* or instant messag* or messaging or internet* or ipad or i-pad or iphone or i-phone or ipod or i-pod or podcast or smart phone or smartphone or social network* site* or social networking or mHealth or m-health or mobile or multi-media or multimedia or online* or on-line or personal digital assistant or PDA or SMS or social medi* or software or telecomm* or telehealth* or telemed* or telemonitor* or telepsych* or teletherap* or tele-health* or tele-med* or tele-monitor* or tele-psych* or tele-therap* or text messag* or texting or virtual* or web* or WWW).ti,ab,kf,hw.
- 65 computer communication networks/ or internet/ or blogging/ or social media/
- 66 cell phones/ or smartphone/ or text messaging/ or videoconferencing/ or webcasts as topic/ or wireless technology/
- 67 (telecomm* or tele-comm*).ti,ab,kf.
- 68 Telemedicine/
- 69 (eLearning or blended learning).ti,kf.
- 70 (videoconferenc* or video conferenc*).ti,kf.
- 71 (synchronous or asynchronous or (electronic adj2 deliver*)).ti,kf.
- 72 or/64-71
- (behavio* or cognitive).ti. or (psychotherap* or psychological therap* or cognitive behavio* or ((cognitive or behavio*) adj2 (activat* or component? or defusion or modif* or restructur* or technique* or intervention or treatment* or therap* or train*)) or ((acceptance* or commitment*) adj3 therap*) or rational emotive or RET or problem sol* or PST or problem focus* or solution focus* or trauma focus* or psychoeducat* or psycho-educat* or psychodrama or psycho-drama* or mindfulness* or third wave or self-control or (self* adj3 (control or efficacy)) or stress manage* or exposure or reality therap* or (anxiety adj3 (management or therap* or train*)) or relaxation or guided imagery or present cent* or person cent* or person* construct* or therapeutic process* or schema? or schemata or (thought* adj3 suppress*) or rumination).mp.
- 74 72 and 73
- 75 controlled clinical trial.pt.
- 76 randomized controlled trial.pt.
- 77 (randomi#ed or randomi#ation or randomi#ing).ti,ab,kf.
- 78 (RCT or at random or (random* adj3 (assign* or allocat* or control* or crossover or cross-over or design* or divide* or division or number))).ti,ab,kf.
- 79 placebo*.ab,ti,kf.
- 80 trial.ab,ti,kf.
- 81 groups.ab.
- (control* and (trial or study or group*) and (placebo or waitlist* or wait* list* or ((treatment or care) adj2 usual))).ti,ab,kf,hw.
- 83 double-blind method/ or random allocation/ or single-blind method/
- 84 ((single or double or triple or treble) adj2 (blind* or mask* or dummy)).ti,ab,kf.
- 85 or/75-84
- 86 exp animals/ not humans.sh.
- 87 85 not 86
- 88 62 and (63 or 74) and 87



89 (2017* or 2018* or 2019*).yr,dp,dt,ed,ep. 90 88 and 89 91 posttraumatic stress disorder/ or complex ptsd/ or acute stress disorder/ or combat experience/ or "debriefing (psychological)"/ or emotional trauma/ or post-traumatic stress/ or exp stress reactions/ or traumatic neurosis/ 92 exp DISASTERS/ 93 (PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab,id. 94 (((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab,id. (trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,id. 95 96 ((trauma* or posttrauma* or post-trauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab,id,hw. 97 (traumati#ed adj (victim? or survivor?)).ti,ab,id. 98 or/91-97 99 (((internet or web or online) adj3 (cognitive or behavio*)) or iCBT or i-CBT or ePsych* or e-Psych* or cCBT or c-CBT).ti,ab,kf. 100 (android or app or apps or blog* or CD-ROM or cell phone or cellphone or chat room or computer* or cyber* or digital or technology based or DVD or eHealth or e-health or electronic health or e-mail* or email* or e-Portal or ePortal or eTherap* or etherap* or forum* or gaming or information technolog* or instant messag* or messaging or internet* or ipad or i-pad or iphone or iphone or ipod or i-pod or podcast or smart phone or smartphone or social network* site* or social networking or mHealth or m-health or mobile or multi-media or multimedia or online* or on-line or personal digital assistant or PDA or SMS or social medi* or software or telecomm* or telehealth* or telemed* or telemonitor* or telepsych* or teletherap* or tele-health* or tele-med* or tele-monitor* or tele-psych* or tele-therap* or text messag* or texting or virtual* or web* or WWW).ti,ab,id,hw. 101 (telecomm* or tele-comm*).ti,ab,id. 102 (eLearning or blended learning).ti,ab,id. 103 (videoconferenc* or video conferenc*).ti,ab,id. 104 (synchronous or asynchronous or (electronic adj2 deliver*)).ti,ab,id. 105 internet/ or websites/ 106 mobile devices/ or cellular phones/ 107 social media/ or online social networks/ or blog/ or online community/ or text messaging/ 108 electronic communication/ or exp computer mediated communication/ or electronic learning/ 109 online therapy/ or telemedicine/ 110 telecommunications media/ 111 teleconferencing/ 112 technology/ or information technology/ or exp computer applications/ or computer software/ 113 computers/ or computer games/ or digital computers/ or microcomputers/ 114 or/100-113 (behavio* or cognitive).ti. or (psychotherap* or psychological therap* or cognitive behavio* or ((cognitive or behavio*) 115 adj2 (activat* or component? or defusion or modif* or restructur* or technique* or intervention or treatment* or therap* or train*)) or ((acceptance* or commitment*) adj3 therap*) or rational emotive or RET or problem sol* or PST or problem focus* or solution focus* or trauma focus* or psychoeducat* or psycho-educat* or psychodrama or psycho-drama* or mindfulness* or third wave or self-control or (self* adj3 (control or efficacy)) or stress manage* or exposure or reality therap* or (anxiety adj3 (management or therap* or train*)) or relaxation or guided imagery or present cent* or person cent* or person* construct* or therapeutic process* or schema? or schemata or (thought* adj3 suppress*) or rumination).ti,ab,id,hw. 116 (self adj (care or change or guide* or help or intervention or manag* or support* or train*)).ti,id.



117	114 and (115 or 116)
118	clinical trials.sh.
119	(randomi#ed or randomi#ation or randomi#ing).ti,ab,id.
120	(RCT or at random or (random* adj3 (assign* or allocat* or control* or crossover or cross-over or design* or divide* or division or number))).ti,ab,id.
121	(control* and (trial or study or group) and (placebo or waitlist* or wait* list* or ((treatment or care) adj2 usual))).ti,ab,id,hw.
122	((single or double or triple or treble) adj2 (blind* or mask* or dummy)).ti,ab,id.
123	trial.ti.
124	placebo.ti,ab,id,hw.
125	treatment outcome.md.
126	treatment effectiveness evaluation.sh.
127	mental health program evaluation.sh.
128	or/118-127
129	98 and (99 or 117) and 128
130	(2017* or 2018* or 2019*).yr,an.
131	129 and 130
132	13 use cctr
133	55 use oemezd
134	90 use medal
135	131 use psyh
136	132 or 133 or 134 or 135
137	remove duplicates from 136

CLINICAL TRIAL REGISTRIES		
ClinicalTrials.gov	Produced by the U.S. National Library of Medicine. Targeted search used to capture registered clinical trials. Search: internet post traumatic stress disorder CBT	
WHO ICTRP	International Clinical Trials Registry Platform, produced by the World Health Organization. Targeted search used to capture registered clinical trials. Search: (internet or web or app or apps or mobile or self) AND ptsd AND CBT	



Patients' Preferences and Experiences Literature Search #1 (iCBT + PTSD)

OVERVIEW

Interface: Ovid

Databases: MEDLINE All (1946-May 21, 2019)

PsycINFO (1806-May week 3, 2019)

Note: Subject headings have been customized for each database. Duplicates between databases

were removed in Ovid for the Ovid searches.

Date of Search: May 23, 2019

Alerts: Monthly search updates until project completion

Study Types: Qualitative studies

Limits: Publication date limit: January 1, 2008 – May 23, 2019

Language limit: English- and French-language

SYNTAX GUIDE

At the end of a phrase, searches the phrase as a subject heading

.fs Floating subheading

exp Explode a subject heading

* Before a word, indicates that the marked subject heading is a primary topic;

or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings

Truncation symbol for one character

? Truncation symbol for one or no characters only

adj# Requires terms to be adjacent to each other within # number of words (in any order)

.ti Title
.ab Abstract

.hw Heading word; usually includes subject headings and controlled vocabulary

.kf Author keyword heading word (MEDLINE)

.id Author keyword (PsycINFO)

.pt Publication type
.mp Mapped term
.yr Publication year
.dp Date of publication
.dt Create date
.ed Entry date

.ep Electronic date of publication

medall Ovid database code: MEDLINE All, 1946 to present, updated daily psyh Ovid database code: PsycINFO, 1806 to present, updated weekly



MULTI-D	ATABASE STRATEGY			
Line #	Search History			
1	Cognitive Behavioral Therapy/ or "Acceptance and Commitment Therapy"/ or Psychotherapy/ or Desensitization, Psychologic/ or Implosive Therapy/			
2	(((cognitive or behavio* or facilitate* or guided or saturat* or unguided) adj2 (therap* or psychotherap* or psychotherap*)) or cognitive behavio* or cognition therap* or CBT*).ti,ab,kf,kw,id.			
3	(self-manag* or selfmanag* or self-help* or selfhelp*).ti,ab,kf,kw,id.			
4	((psycholog* adj3 desensiti*) or imaginal flooding* or (imager* adj3 exposure*)).ti,ab,kf,kw,id.			
5	((exposure or flooding* or implosive or saturation) adj3 therap*).ti,ab,kf,kw,id.			
6	or/1-5			
7	Internet/ or exp Computers/ or Therapy, Computer-Assisted/ or Computer-Assisted Instruction/ or Distance Counseling/ or Cell Phone/ or Mobile Applications/ or Remote Consultation/ or exp Telemedicine/ or exp Videoconferencing/			
8	(internet* or Beacon or app or apps or computer* or cyber-therap* or cybertherap* or e mail* or email* or electronic mail* or "Information and communication technology" or "Information and communication technologies" or emedicine or e medicine or ehealth* or e health* or emental health* or e mental health* or etherap* or e therap* or epsychiatr* or e psychiatr* or epsychol* or media deliver* or mobile* or online* or smartphone* or smart phone* or telemedicine or tele medicine or telehealth* or tele health* or telemental health* or tele mental health* or telecare or tele care or teletherap* or tele therap* or telepsychiatr* or tele psychiatr* or telepsychol* or tele psychol* or telepsychotherap* or tele-psychotherap* or tele-coach* or virtual or virtualist? or webbased or web based or web deliver* or webdeliver*).ti,ab,kf,kw,id.			
9	or/7-8			
10	exp Stress Disorders, Traumatic/			
11	(PTSD or posttrauma* or post-trauma* or panic disorder* or panic attack* or shell shock or war neurosis or war neuroses or acute stress disorder* or operational stress or past trauma* or PTD or complex trauma* or traumatic stress or moral injur* or trauma-base* or trauma-focus*).ti,ab,kf,kw,id.			
12	(combat* adj3 (neuroses* or neurosis* or stress* or fatigue* or disorder*)).ti,ab,kf,kw,id.			
13	or/10-12			
14	(cCBT* or iCBT* or eCBT*).ti,ab,kf,kw,id.			
15	((computer* or cyber* or digital* or technolog* or web*) adj6 (CBT or coach* or deliver* or intervention* or psychiatr* or psycho-dynamic or psychodynamic or psycholog* or psycho-therap* or psychotherap* or therap* or technique* or training or treatment*)).ti,ab,kf,kw,id.			
16	(MoodGym or Big White Wall or Beating the Blues or Fear Fighter or E compass or Ecompass or Deprexis or Moodkit or "Living Life to the Full" or Woebot).ti,ab,kf,kw,id.			
17	(e-mental health or emental health).ti,ab,kf,kw,id.			
18	(ACT Coach or (("Anger and Irritability Management Skills" or AIMS) adj5 app*) or Behavior Tracker Pro or Breathe2Relax or CBT-I Coach or CPT Coach or (cognitive processing therap* adj2 coach*) or Dream EZ or Life Armor or Mood Coach or Moving Forward or PE Coach or PTSD Coach or "T2 Mood Tracker" or Tactical Breather or VetChange or Interapy).ti,ab,kf,kw,id.			
19	or/14-18			
20	6 and 9 and 13			
21	13 and 19			
22	20 or 21			
23	22 use medall			
24	exp Cognitive Behavior Therapy/ or Cognitive Therapy/			
25	(((cognitive or behavio* or facilitate* or guided or saturat* or unguided) adj2 (therap* or psychotherap* or psychotherap*)) or cognitive behavio* or cognition therap* or CBT*).ti,ab,kf,kw,id.			



- 26 (self-manag* or selfmanag* or self-help* or selfhelp*).ti,ab,kf,kw,id.
- 27 ((psycholog* adj3 desensiti*) or imaginal flooding* or (imager* adj3 exposure*)).ti,ab,kf,kw,id.
- 28 ((exposure or flooding* or implosive or saturation) adj3 therap*).ti,ab,kf,kw,id.
- 29 or/24-28
- Telemedicine/ or Computer-Assisted therapy/ or Computer-Assisted Instruction/ or Internet/ or exp Mobile Devices/ or Online Therapy/
- (internet* or Beacon or app or apps or computer* or cyber-therap* or cybertherap* or e mail* or email* or electronic mail* or "Information and communication technology" or "Information and communication technologies" or emedicine or e medicine or ehealth* or e health* or emental health* or e mental health* or etherap* or e therap* or epsychiatr* or epsychiatr* or epsychiatr* or epsychiatr* or mobile* or online* or smartphone* or smart phone* or telemedicine or telemedicine or telehealth* or tele health* or telemental health* or tele mental health* or telecare or tele care or teletherap* or tele therap* or telepsychiatr* or tele psychiatr* or telepsychol* or tele psychol* or telepsychotherap* or tele-coach* or virtual or virtualist? or webbased or web based or web deliver* or webdeliver*).ti,ab,kf,kw,id.
- 32 or/30-3
- 33 exp Posttraumatic Stress Disorder/ or Combat Experience/ or Emotional Trauma/ or Post-Traumatic Stress/ or Traumatic Neurosis/
- 34 (PTSD or posttrauma* or post-trauma* or panic disorder* or panic attack* or shell shock or war neurosis or war neuroses or acute stress disorder* or operational stress or past trauma* or PTD or complex trauma* or traumatic stress or moral injur* or trauma-base* or trauma-focus*).ti,ab,kf,kw,id.
- 35 (combat* adj3 (neuroses* or neurosis* or stress* or fatigue* or disorder*)).ti,ab,kf,kw,id.
- 36 or/33-35
- 37 (cCBT* or iCBT* or eCBT*).ti,ab,kf,kw,id.
- 38 ((computer* or cyber* or digital* or technolog* or web*) adj6 (CBT or coach* or deliver* or intervention* or psychiatr* or psycho-dynamic or psychodynamic or psycholog* or psycho-therap* or psychotherap* or therap* or technique* or training or treatment*)).ti,ab,kf,kw,id.
- 39 (MoodGym or Big White Wall or Beating the Blues or Fear Fighter or E compass or Ecompass or Deprexis or Moodkit or "Living Life to the Full" or Woebot).ti,ab,kf,kw,id.
- 40 (e-mental health or emental health).ti,ab,kf,kw,id.
- 41 (ACT Coach or (("Anger and Irritability Management Skills" or AIMS) adj5 app*) or Behavior Tracker Pro or Breathe2Relax or CBT-I Coach or CPT Coach or (cognitive processing therap* adj2 coach*) or Dream EZ or Life Armor or Mood Coach or Moving Forward or PE Coach or PTSD Coach or "T2 Mood Tracker" or Tactical Breather or VetChange or Interapy).ti,ab,kf,kw,id.
- 42 or/37-41
- 43 29 and 32 and 36
- 44 36 and 42
- 45 43 or 44
- 46 45 use psyh
- 47 23 or 46
- 48 47 and (english or french).la.
- 49 limit 48 to yr="2008 -Current"
- 50 exp Empirical Research/ or Interviews as Topic/ or Personal Narratives/ or Focus Groups/ or exp Narration/ or Nursing Methodology Research/ or Narrative Medicine/
- 51 Interview/
- 52 Qualitative Research/ or Grounded Theory/ or Narratives/ or Storytelling/ or exp Life Experiences/ or exp Interviews/
- 53 interview*.ti,ab,kf,id.



55 (theme* or thematic).ti,ab,kf,id. 56 ethnological research.ti,ab,kf,id. 57 ethnograph*.ti,ab,kf,id. 58 ethnomedicine.ti,ab,kf,id. 59 ethnonursing.ti,ab,kf,id. 60 phenomenol*.ti,ab,kf,id. 61 (grounded adj (theor* or study or studies or research or analys?s)).ti,ab,kf,id. 62 (life stor* or women* stor*).ti,ab,kf,id. (emic or etic or hermeneutic* or heuristic* or semiotic*).ti,ab,kf,id. 63 64 (data adj1 saturat\$).ti,ab,kf,id. 65 participant observ*.ti,ab,kf,id. (social construct* or postmodern* or post-structural* or post structural* or poststructural* or post modern* or post-66 modern* or feminis*).ti,ab,kf,id. (action research or cooperative inquir* or co operative inquir* or co-operative inquir*).ti,ab,kf,id. 67 68 (humanistic or existential or experiential or paradigm*).ti,ab,kf,id. 69 (field adj (study or studies or research or work)).ti,ab,kf,id. 70 (human science or social science).ti,ab,kf,id. 71 biographical method.ti,ab,kf,id. 72 theoretical sampl*.ti,ab,kf,id. 73 ((purpos* adj4 sampl*) or (focus adj group*)).ti,ab,kf,id. 74 (open-ended or narrative* or textual or texts or semi-structured).ti,ab,kf,id. 75 (life world* or life-world* or conversation analys?s or personal experience* or theoretical saturation).ti,ab,kf,id. 76 ((lived or life) adj experience*).ti,ab,kf,id. 77 cluster sampl*.ti,ab,kf,id. 78 observational method*.ti,ab,kf,id. 79 content analysis.ti,ab,kf,id. 80 (constant adj (comparative or comparison)).ti,ab,kf,id. 81 ((discourse* or discurs*) adj3 analys?s).ti,ab,kf,id. 82 (heidegger* or colaizzi* or spiegelberg* or merleau* or husserl* or foucault* or ricoeur or glaser*).ti,ab,kf,id.

54

83

84

85

86

87

88

(van adj manen*).ti,ab,kf,id.

(corbin* adj2 strauss*).ti,ab,kf,id.

(van adj kaam*).ti,ab,kf,id.

remove duplicates from 87

or/50-85

49 and 86

qualitative*.ti,ab,kf,jw,id.



OTHER DATABASES				
PubMed	PubMed Searched to capture records not found in MEDLINE. Same MeSH, keywords, limits, and study types used as per MEDLINE search, with appropriate syntax used.			
CINAHL	Same MeSH, keywords, and limits used as per MEDLINE search, excluding study types and human restrictions. Syntax adjusted for EBSCO platform, including the addition of CINAHL headings.			

Patients' Preferences and Experiences Literature Search #2 (CBT + PTSD)

OVERVIEW

Interface: Ovid

Databases: MEDLINE All (1946-July 15, 2019)

PsycINFO (1806-July week 2, 2019)

Note: Subject headings have been customized for each database. Duplicates between databases

were removed in Ovid for the Ovid searches.

Date of Search: July 16, 2019

Alerts: Monthly search updates until project completion

Study Types: Qualitative studies

Limits: Publication date limit: January 1, 2014 – July 16, 2019

Language limit: English- and French-language

SYNTAX GUIDE

/ At the end of a phrase, searches the phrase as a subject heading .fs Floating subheading Explode a subject heading exp Before a word, indicates that the marked subject heading is a primary topic; or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings Truncation symbol for one character # ? Truncation symbol for one or no characters only Requires terms to be adjacent to each other within # number of words (in any order) adj# Title .ti **Abstract** .ab Heading word; usually includes subject headings and controlled vocabulary .hw Author keyword heading word (MEDLINE) .kf Author keyword (PsycINFO) .id Publication type .pt .mp Mapped term Publication year .yr .dp Date of publication Create date .dt Entry date .ed .ep Electronic date of publication Ovid database code: MEDLINE All, 1946 to present, updated daily medall psyh Ovid database code: PsycINFO, 1806 to present, updated weekly



MULTI-D	ATABASE STRATEGY			
Line #	Search History			
1	Cognitive Behavioral Therapy/ or "Acceptance and Commitment Therapy"/ or Psychotherapy/ or Desensitization, Psychologic/ or Implosive Therapy/			
2	(((cognitive or behavio* or facilitate* or guided or saturat* or unguided) adj2 (therap* or psychotherap* or psychotherap*)) or cognitive behavio* or cognition therap* or CBT*).ti,ab,kf,kw,id.			
3	(self-manag* or selfmanag* or self-help* or selfhelp*).ti,ab,kf,kw,id.			
4	((psycholog* adj3 desensiti*) or imaginal flooding* or (imager* adj3 exposure*)).ti,ab,kf,kw,id.			
5	((exposure or flooding* or implosive or saturation) adj3 therap*).ti,ab,kf,kw,id.			
6	or/1-5			
7	exp Stress Disorders, Traumatic/			
8	(PTSD or posttrauma* or post-trauma* or panic disorder* or panic attack* or shell shock or war neurosis or war neuroses or acute stress disorder* or operational stress or past trauma* or PTD or complex trauma* or traumatic stress or moral injur* or trauma-base* or trauma-focus*).ti,ab,kf,kw,id.			
9	(combat* adj3 (neuroses* or neurosis* or stress* or fatigue* or disorder*)).ti,ab,kf,kw,id.			
10	or/7-9			
11	6 and 10			
12	11 use medall			
13	exp Cognitive Behavior Therapy/ or Cognitive Therapy/			
14	(((cognitive or behavio* or facilitate* or guided or saturat* or unguided) adj2 (therap* or psychotherap* or psychotherap*)) or cognitive behavio* or cognition therap* or CBT*).ti,ab,kf,kw,id.			
15	(self-manag* or selfmanag* or self-help* or selfhelp*).ti,ab,kf,kw,id.			
16	((psycholog* adj3 desensiti*) or imaginal flooding* or (imager* adj3 exposure*)).ti,ab,kf,kw,id.			
17	((exposure or flooding* or implosive or saturation) adj3 therap*).ti,ab,kf,kw,id.			
18	or/13-17			
19	exp Posttraumatic Stress Disorder/ or Combat Experience/ or Emotional Trauma/ or Post-Traumatic Stress/ or Traumatic Neurosis/			
20	(PTSD or posttrauma* or post-trauma* or panic disorder* or panic attack* or shell shock or war neurosis or war neuroses or acute stress disorder* or operational stress or past trauma* or PTD or complex trauma* or traumatic stres or moral injur* or trauma-base* or trauma-focus*).ti,ab,kf,kw,id.			
21	(combat* adj3 (neuroses* or neurosis* or stress* or fatigue* or disorder*)).ti,ab,kf,kw,id.			
22	or/19-21			
23	18 and 22			
24	23 use psyh			
25	12 or 24			
26	25 and (english or french).la.			
27	limit 26 to yr="2014 -Current"			
28	exp Empirical Research/ or Interview/ or Interviews as Topic/ or Personal Narratives/ or Focus Groups/ or exp Narration/ or Nursing Methodology Research/ or Narrative Medicine/			
29	Interview/			
30	Qualitative Research/ or Grounded Theory/ or Narratives/ or Storytelling/ or exp Life Experiences/ or exp Interviews/			
31	interview*.ti,ab,kf,id.			
32	qualitative*.ti,ab,kf,jw,id.			
33	(theme* or thematic).ti,ab,kf,id.			



34	ethnological research.ti,ab,kf,id.
35	ethnograph*.ti,ab,kf,id.
36	ethnomedicine.ti,ab,kf,id.
37	ethnonursing.ti,ab,kf,id.
38	phenomenol*.ti,ab,kf,id.
39	(grounded adj (theor* or study or studies or research or analys?s)).ti,ab,kf,id.
40	(life stor* or women* stor*).ti,ab,kf,id.
41	(emic or etic or hermeneutic* or heuristic* or semiotic*).ti,ab,kf,id.
42	(data adj1 saturat\$).ti,ab,kf,id.
43	participant observ*.ti,ab,kf,id.
44	(social construct* or postmodern* or post-structural* or post structural* or poststructural* or post modern* or post-modern* or feminis*).ti,ab,kf,id.
45	(action research or cooperative inquir* or co operative inquir* or co-operative inquir*).ti,ab,kf,id.
46	(humanistic or existential or experiential or paradigm*).ti,ab,kf,id.
47	(field adj (study or studies or research or work)).ti,ab,kf,id.
48	(human science or social science).ti,ab,kf,id.
49	biographical method.ti,ab,kf,id.
50	theoretical sampl*.ti,ab,kf,id.
51	((purpos* adj4 sampl*) or (focus adj group*)).ti,ab,kf,id.
52	(open-ended or narrative* or textual or texts or semi-structured).ti,ab,kf,id.
53	(life world* or life-world* or conversation analys?s or personal experience* or theoretical saturation).ti,ab,kf,id.
54	((lived or life) adj experience*).ti,ab,kf,id.
55	cluster sampl*.ti,ab,kf,id.
56	observational method*.ti,ab,kf,id.
57	content analysis.ti,ab,kf,id.
58	(constant adj (comparative or comparison)).ti,ab,kf,id.
59	((discourse* or discurs*) adj3 analys?s).ti,ab,kf,id.
60	(heidegger* or colaizzi* or spiegelberg* or merleau* or husserl* or foucault* or ricoeur or glaser*).ti,ab,kf,id.
61	(van adj manen*).ti,ab,kf,id.
62	(van adj kaam*).ti,ab,kf,id.
63	(corbin* adj2 strauss*).ti,ab,kf,id.
64	or/28-63
65	27 and 64
66	remove duplicates from 65

OTHER DATABASE	OTHER DATABASES		
PubMed	Searched to capture records not found in MEDLINE. Same MeSH, keywords, limits, and study types used as per MEDLINE search, with appropriate syntax used.		
CINAHL	Same MeSH, keywords, and limits used as per MEDLINE search, excluding study types and human restrictions. Syntax adjusted for EBSCO platform, including the addition of CINAHL headings.		



Grey Literature

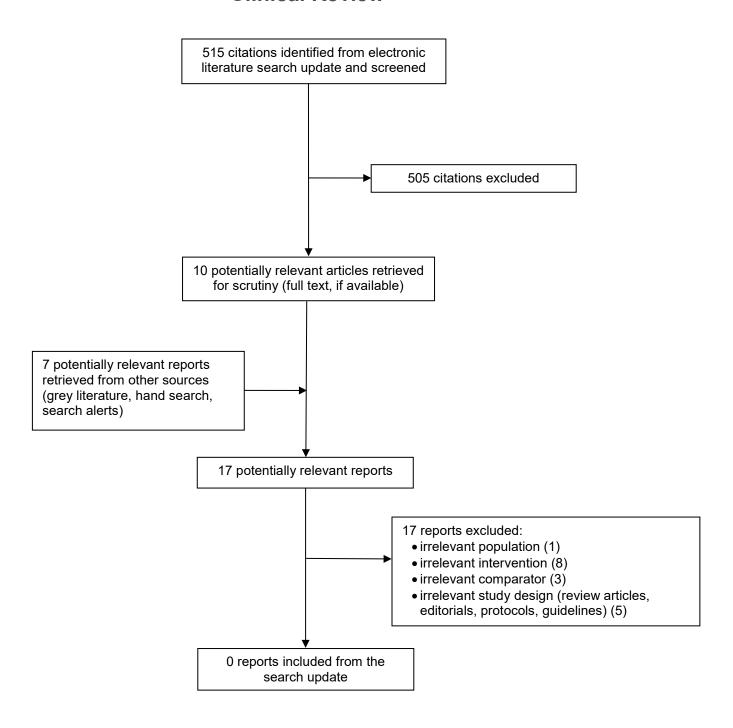
Dates for Search:	June 10, 2019 - July 4, 2019
Keywords:	Internet, Cognitive Behavioural Therapy, PTSD
Limits:	Publication years: January 1, 2008 – present

Relevant websites from the following sections of the CADTH grey literature checklist, Grey Matters: A Practical Tool For Searching Health-Related Grey Literature (https://www.cadth.ca/grey-matters), 43 were searched:

- health technology assessment agencies
- · health economics
- · clinical practice guidelines
- · clinical trial registries
- databases (free)
- Internet search
- open access journals.



Appendix 2: Study Selection Flow Diagram — Clinical Review





Appendix 3: List of Included Studies — Clinical Review

The citations provided in the following list are the primary studies that were included in the Cochrane review.⁴⁰ No additional studies eligible for inclusion were identified as part of our update to the Cochrane search.

- 1. Krupnick JL, Green BL, Amdur R, et al. An Internet-based writing intervention for PTSD in veterans: a feasibility and pilot effectiveness trial. Psychol Trauma. 2017;9(4):461-470.
- 2. Kuhn E, Kanuri N, Hoffman JE, Garvert DW, Ruzek JI, Taylor CB. A randomized controlled trial of a smartphone app for posttraumatic stress disorder symptoms. J Consult Clin Psychol. 2017;85(3):267-273.
- 3. Lewis CE, Farewell D, Groves V, et al. Internet-based guided self-help for posttraumatic stress disorder (PTSD): randomized controlled trial. Depress Anxiety. 2017;34(6):555-565.
- 4. Littleton H, Grills AE, Kline KD, Schoemann AM, Dodd JC. The From Survivor to Thriver program: RCT of an online therapist-facilitated program for rape-related PTSD. J Anxiety Disord. 2016;43:41-51.
- 5. Miner A, Kuhn E, Hoffman JE, Owen JE, Ruzek JI, Taylor CB. Feasibility, acceptability, and potential efficacy of the PTSD Coach app: a pilot randomized controlled trial with community trauma survivors. Psychol Trauma. 2016;8(3):384-392.
- Engel CC, Litz B, Magruder KM, et al. Delivery of self training and education for stressful situations (DESTRESS-PC): a randomized trial of nurse assisted online self-management for PTSD in primary care. Gen Hosp Psychiatry. 2015;37(4):323-328
- 7. Knaevelsrud C, Brand J, Lange A, Ruwaard J, Wagner B. Web-based psychotherapy for posttraumatic stress disorder in war-traumatized Arab patients: randomized controlled trial. J Med Internet Res. 2015;17(3):e71.
- 8. Ivarsson D, Blom M, Hesser H, et al. Guided internet-delivered cognitive behavior therapy for post-traumatic stress disorder: a randomized controlled trial. Internet Interv. 2014;1(1):33-40.
- Spence J, Titov N, Dear BF, et al. Randomized controlled trial of Internet-delivered cognitive behavioral therapy for posttraumatic stress disorder. Depress Anxiety. 2011;28(7):541-550.
- 10. Litz BT, Engel CC, Bryant RA, Papa A. A randomized, controlled proof-of-concept trial of an Internet-based, therapist-assisted self-management treatment for posttraumatic stress disorder. Am J Psychiatry. 2007;164(11):1676-1683.

Studies Identified for the Discussion Section

The citations provided in the following list met the eligibility criteria for the CADTH Rapid Response report⁴¹ but not for the body of the review. A brief summary of its findings was provided in the discussion section of the health technology assessment.

 Spence J, Titov N, Johnston L, Jones MP, Dear BF, Solley K. Internet-based trauma-focused cognitive behavioural therapy for PTSD with and without exposure components: a randomised controlled trial. J Affect Disord. 2014;162:73-80.



Appendix 4: List of Excluded Studies and Reasons for Exclusion — Clinical Review

The citations provided in the following list are studies that were excluded after full-text assessment by two independent reviewers as part of the update to the Cochrane search. A list of articles excluded after full-text review from the original Cochrane search is available in the Cochrane review.⁴⁰

Irrelevant Population

1. Taylor DJ, Peterson AL, Pruiksma KE, et al. Impact of cognitive behavioral therapy for insomnia disorder on sleep and comorbid symptoms in military personnel: a randomized clinical trial. Sleep. 2018;41(6):01.

Irrelevant Intervention

- 2. Capone C, Presseau C, Saunders E, Eaton E, Hamblen J, McGovern M. Is integrated CBT effective in reducing PTSD symptoms and substance use in Iraq and Afghanistan veterans? Results from a randomized clinical trial. Cognit Ther Res. 2018;42(6):735-746.
- 3. Darvish A, Khodadadi-Hassankiadeh N, Abdoosti S, Ghapandar Kashani M. Effect of text messaging-based psychiatric nursing program on quality of life in veterans with post-traumatic stress disorder: a randomized controlled trial. Int J Community Based Nurs Midwifery. 2019;7(1):52-62.
- 4. Elbogen EB, Dennis PA, Van Voorhees EE, et al. Cognitive rehabilitation with mobile technology and social support for veterans with TBI and PTSD: a randomized clinical trial. J Head Trauma Rehabil. 2019;34(1):1-10.
- 5. Elwy AR, Kim B, Plumb DN, et al. The connectedness of mental health providers referring patients to a treatment study for post-traumatic stress: a social network study. Adm Policy Ment Health. 2019.
- Fonzo GA, Fine NB, Wright RN, et al. Internet-delivered computerized cognitive & affective remediation training for the treatment of acute and chronic posttraumatic stress disorder: two randomized clinical trials. J Psychiatr Res. 2019;115:82-89.
- 7. Gehrman P, Bellamy S, Medvedeva E, et al. Telehealth delivery of group CBT-I is noninferior to in-person treatment in veterans with PTSD. Sleep. 2018;41 (Suppl 1):A141-A142.
- 8. Laurel Franklin C, Walton JL, Raines AM, et al. Pilot study comparing telephone to in-person delivery of cognitive-behavioural therapy for trauma-related insomnia for rural veterans. J Telemed Telecare. 2018;24(9):629-635.
- 9. Nickerson A, Byrow Y, Pajak R, et al. 'Tell Your Story': a randomized controlled trial of an online intervention to reduce mental health stigma and increase help-seeking in refugee men with posttraumatic stress. Psychol Med. 2019.

Irrelevant Comparator

- 10. Murphy D, Turgoose D. Evaluating an Internet-based video cognitive processing therapy intervention for veterans with PTSD: a pilot study. J Telemed Telecare. 2019:1357633x19850393.
- 11. Smith SK, Kuhn E, O'Donnell J, et al. Cancer distress coach: Pilot study of a mobile app for managing posttraumatic stress. Psychooncology. 2018;27(1):350-353.
- 12. Tiet QQ, Duong H, Davis L, et al. PTSD coach mobile application with brief telephone support: a pilot study. Psychol Serv. 2019;16(2):227-232.

Irrelevant Study Design

- 13. Gawlytta R, Niemeyer H, Bottche M, Scherag A, Knaevelsrud C, Rosendahl J. Internet-based cognitive-behavioural writing therapy for reducing post-traumatic stress after intensive care for sepsis in patients and their spouses (REPAIR): study protocol for a randomised-controlled trial. BMJ Open. 2017;7(2):e014363.
- 14. Hoffmann R, Grosse J, Nagl M, Mehnert A, Kersting A. Internet-based therapy for bereaved persons after loss due to hematological cancer. Psychooncology. 2017;26 (Suppl 3):158.
- 15. Kuhn E, van der Meer C, Owen JE, et al. PTSD Coach around the world. Began with 2015. 2018;4:15.
- 16. Smith S. Evolution of a mobile app to manage cancer-related post-traumatic stress. Psycho oncology. 2019;28(19).
- 17. Post-traumatic stress disorder. NICE guideline. London (UK): National Institute for Health and Care Excellence (NICE); 2018.



Appendix 5: Summary of the Cochrane Review

Table 14: Study Characteristics of the Cochrane Systematic Review

Study Citation, Country, Funding Source	Study Designs, Search Time Frame, Number of Studies Included, Quality Assessment Tool, Objective	Population Characteristics	Intervention and Comparator(s)	Clinical Outcomes
Lewis et al., 2018 ⁴⁰ UK Funding source: The authors acknowledge the Cochrane Common Mental Disorder Group, whose single largest funder is the National Institute for Health Research (NIHR). Internal support was received from Cardiff University.	Objective: To evaluate the effectiveness of iCBT for the treatment of PTSD in adults. Study design: SR and MA of RCTs, randomized crossover trials, and cluster-randomized trials. Literature search time frame: Initial searches were conducted on September 24th, 2015, and May 6th, 2016. An update was performed on March 1st, 2018. The searches were not restricted by date, language, or publication status. Number of studies included in the quantitative synthesis (MA). Quality assessment tool: The criteria in the Cochrane Handbook for Systematic Reviews of Interventions ⁴⁴ were applied to each included primary study to judge each potential source of bias as high, low, or unclear. The overall quality of available evidence was evaluated using the GRADE approach.	Adults (≥ 16 years of age) with traumatic stress symptoms. At least 70% of participants in any given study were required to meet diagnostic criteria for PTSD according to the DSM-III, DSM-IIIR, DSM-IV, DSM-V, ICD-9, or the ICD-10, as assessed by clinical interview or a validated questionnaire. There were no restrictions placed on sex or gender, ethnicity, comorbidities, setting, type of traumatic event, severity of symptoms, or length of time since trauma.	Intervention: Guided or unguided iCBT delivered via a computer or mobile device. Interventions based on EMDR or online psychoeducation alone, and interventions using mindfulness-based approaches apart from mindfulness-based iCBT, were excluded. Comparators: Face-to-face psychological therapy (CBT based), face-to-face psychological therapy (non-CBT based; e.g., EMDR, supportive therapy, non-directive counselling, psychodynamic therapy, and present-centred therapy), wait-list, repeated assessment, usual care, internet psychological therapy (non-CBT).	Severity of PTSD symptoms (as measured by standardized scales, e.g., CAPS-5, PCL-5) Dropout rates Diagnosis of PTSD after treatment (i.e., number of participants who met diagnostic criteria for PTSD in each arm of the study) Depression symptoms (as measured by standardized scales; e.g., BDI) Anxiety symptoms (as measured by standardized scales; e.g., BAI) Cost-effectiveness Adverse events (e.g., symptoms worsening, relapses to substance use, hospitalizations, suicide attempts, work absenteeism) Quality of life (using any measures) Note: Studies that met the inclusion criteria were included regardless of whether they reported on these outcomes.

BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; CAPS = Clinician-Administered Post-Traumatic Stress Disorder Scale; CBT = cognitive behavioural therapy; DSM = Diagnostic and Statistical Manual of Mental Disorders; EMDR = eye movement desensitization and reprocessing; GRADE = Grading of Recommendations Assessment, Development and Evaluation; iCBT = internet-delivered cognitive behavioural therapy; ICD = The International Statistical Classification of Diseases and Health Related Problems; MA = meta-analysis; PCL = Post-Traumatic Stress Disorder Checklist; PTSD = post-traumatic stress disorder; RCT = randomized controlled trial; SR = systematic review.



Appendix 6: Critical Appraisal of the Cochrane Review

Table 15: A Measurement Tool to Assess Systematic Reviews II Checklist

AMSTAR II Item	Lewis (2018) ⁴⁰
Did the research questions and inclusion criteria for the review include the components of PICO?	\oplus
^a Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?	\oplus
Did the review authors explain their selection of the study designs for inclusion in the review?	X
^a Did the review authors use a comprehensive literature search strategy?	\oplus
Did the review authors perform study selection in duplicate?	\oplus
Did the review authors perform data extraction in duplicate?	\oplus
^a Did the review authors provide a list of excluded studies and justify the exclusions?	\oplus
Did the review authors describe the included studies in adequate detail?	\oplus
^a Did the review authors use a satisfactory technique for assessing the RoB in individual studies that were included in the review?	\oplus
Did the review authors report on the sources of funding for the studies included in the review?	\oplus
^a If meta-analysis was performed, did the review authors use appropriate methods for statistical combination of results?	\oplus
If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?	\oplus
^a Did the review authors account for RoB in individual studies when interpreting/discussing the results of the review?	\oplus
Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?	0
^a If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?	Ф
Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	\oplus

^{⊕ =} yes; X = no; AMSTAR = A Measurement Tool to Assess Systematic Reviews; RoB = risk of bias.

^a = AMSTAR II critical domains.



Appendix 7: Characteristics of Included Primary Studies — Clinical Review

Table 16: Study and Patient Characteristics of Included Primary Clinical Studies

Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
iCBT Versus Wait-List of	r Usual Care				
Krupnick et al. (2017), ⁶⁶ US Funding source: A grant from the Telemedicine and Advanced Technology Research Center, U.S. Department of Defense	Study design: RCT, open label, 1:1 ratio Setting: Participants were recruited from the Trauma Services Program, an outpatient program that specialized in the assessment and treatment of veterans with military-related PTSD Objective: To determine the feasibility, acceptability, safety, and preliminary effectiveness of an online writing intervention based on principles of CBT compared with treatment as usual	Inclusion criteria: Veterans (≥ 18 years of age) who served in Iraq or Afghanistan with a PCL-M score > 50 Excluded: Individuals with current substance dependence, acute suicidality, psychosis, gross cognitive impairment, or current participants in CBT Number of participants: 34 (18 in iCBT group, 16 in usual care group) Mean age: 35.44 (SD = NR) years in the iCBT + TAU group; 44.75 (SD = NR) years, in the TAU group Sex: 8.8% female; 91.2% male Type of trauma: Military trauma Mean time since trauma: NR Baseline PTSD severity: Baseline PCL-M score (mean item score) of 3.6 (SD = 0.3) in	Therapist-guided iCBT (WIRED, based on interapy) plus treatment as usual (details not provided). The program involved trauma confrontation, cognitive restructuring of maladaptive thoughts, and discussion of leave- taking and social sharing Number of sessions: 10 Treatment duration: NR Guidance: Support was provided by a psychologist as required by the study participants. A short response and further instructions were sent by the therapist after each writing session. Guidance was provided online	Treatment as usual with no restrictions. A chart review conducted at the end of the study showed that participants in this group received cognitive processing therapy (n = 4), antidepressant medication (n = 8), or acupuncture (n = 1)	Outcomes: • PCL-M • PHQ-9 • AUDIT Follow up: 12 weeks and 24 weeks



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		the iCBT + TAU group; baseline PCL-M score (mean item score) of 3.9 (SD = 0.4) in the TAU alone group Comorbidities: The study did not screen for comorbid conditions			
Kuhn et al. (2017), ⁵³ US Funding source: NR	Study design: RCT, open label, 1:1 ratio Setting: Participants were recruited using advertisements through fliers, media coverage, social media, and websites (Craigslist) Objective: The aim of the study was to evaluate the efficacy of a freely available smartphone app (PTSD Coach), which includes CBT-based tools for the treatment of PTSD	Inclusion criteria: Adults (≥ 18 years of age) who were fluent in English, owned a mobile device capable of using PTSD Coach, had exposure to a traumatic event more than one month ago, and who had a PCL-C score of ≥ 35 Excluded: Individuals who were receiving any treatment for PTSD Number of participants: 120 (62 in iCBT group, 58 in WL group) Mean age: 39.43 (SD = 15.16) years in the iCBT group; 39.12 (SD = 14.08) years in the WL group Sex: 69.2% female, 30.8% male Type of trauma: Physical assault (n = 56), sexual assault (n = 25), life-threatening illness	Unguided internet program based on CBT (PTSD Coach). While PTSD Coach includes sections that provide participants with CBT-based tools, the program appears to be much less structured than other iCBT software Number of sessions: The program was not broken down into sessions Treatment duration: 12 weeks Guidance: The program did not include therapist guidance	WL control. Participants were on a wait-list for 14 weeks and then received information on PTSD Coach, allowing them to use it if they would like This group received no intervention during the treatment period	Primary outcomes: PCL Secondary outcomes: PTSD symptom coping self-efficacy PHQ-8 B-IPF Follow up: 3 months (post-treatment) and 6 months (there no data for the wait-list group available at second follow up)

Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		or injury (n = 7), disaster exposure (n = 3), combat exposure (n = 4), and other events (n = 8) were reported as index traumas for participants in both groups			
		Mean time since trauma: 9.88 (SD = 11.59) years in the iCBT group; 9.77 (SD = 10.22) years in the WL group			
		Baseline PTSD severity: Mean PCL-C score of 63.19 (SD = 11.78) in the iCBT group; mean PCL-C score of 60.59 (SD = 10.24) in the WL group			
		Comorbidities: NR			
Lewis et al. (2017), ⁵² UK Funding source: Knowledge Transfer Partnership (KTP008512)	Study design: RCT, single blind (the outcome assessor was blinded), 1:1 ratio Setting: Participants were recruited from mental health services at a primary care level and at a specialist secondary care traumatic stress service. 95% of participants were referred by treating clinicians and 5% were recruited by advertisements in the media	Inclusion criteria: Adults (≥ 18 years of age) who met the diagnostic criteria for DSM-V PTSD (as measured by CAPS-5) of mild-to-moderate severity after a two-week period of symptom monitoring Excluded: Individuals with psychosis, previous traumafocused psychological therapy, severe major depressive episode (as defined in the DSM-V), substance dependence, inability to read and write fluent English, inability to access the internet, change in	Therapist-guided trauma-focused iCBT. The modules included psycho-educational materials, grounding techniques, relaxation exercises, imaginal exposure, cognitive techniques to address negative thoughts, and graded in vivo exposure work Number of sessions: 8 modules	WL control (delayed treatment group). Participants were on a wait-list for 14 weeks and then received the iCBT intervention This group did not receive any therapist contact until they crossed over	Primary outcomes: CAPS-5 Secondary outcomes: PTSD symptoms (PCL-5) Depression symptoms (BDI) Anxiety symptoms (BAI) Signs of harmful drinking or dependence (AUDIT) Perceived social support (SSQ) Functional impairment (SDS)



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
	Objective: "To evaluate a novel trauma-focused internet-based guided self-help program for PTSD"52 (p. 556)	psychotropic medication in the previous month, concurrent psychological therapy, and suicidal intent Number of participants: 42 (21 in iCBT group, 21 in WL group) Mean age: 38.86 (SD = 11.91) years, range = 20 to 65 years in the iCBT group; 37.71 (SD = 13.8) years, range = 21-64 years in the WL (delayed treatment) group Sex: 59.5% female; 40.5% male Type of trauma: Transportation accidents (n = 9); witnessing a sudden, violent, or accidental death (n = 9); traumatic childbirth or stillbirth (n = 8); sexual assault or rape (n = 5); physical attack (n = 4); lifethreatening illness or injury (n = 3); serious accident (n = 1); learning of the violent death of a loved one (n = 1); seeing a mutilated body (n = 1); and being held hostage or detained (n = 1). The average time since trauma was 37.33 months (SD = 46.95, range = 3 to 228 months)	Treatment duration: 8 weeks Guidance: The intervention allowed up to three hours of therapist assistance, which was offered to provide support, monitoring, motivation, and problem-solving. This guidance was provided by a psychiatrist, a clinical psychologist, and three cognitive behavioral therapists who were experienced in the delivery of traumafocused CBT. Guidance was provided in face-to-face meetings, over the telephone, or by email		Follow up: 10 weeks (post-treatment), 14 weeks (1 month post-treatment), and 22 weeks (3 months post-treatment)



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		Mean time since trauma: 2.72 (SD = 4.34) years in the iCBT group; 3.54 (SD = 3.45) years in the WL (delayed treatment) group			
		Baseline PTSD severity: Mean CAPS-5 score of 35.99 (SD = 6.29) in the iCBT group; mean CAPS-5 score of 37.12 (SD = 6.95) in the WL (delayed treatment) group Comorbidities: NR			
Miner et al. (2016), ⁶⁷ US	Study design: RCT, open label, 1:1 ratio	Inclusion criteria: Adults (≥ 18 years of age) who were	Unguided internet program based on CBT (PTSD Coach). While	WL control. Participants were on a wait-list for 4 weeks and then	Primary outcomes: • PCL-C
Funding source: NR	Setting: Participants were recruited using fliers posted in the San Francisco Bay Area as well as through website postings (e.g., Craigslist) seeking volunteers who had experienced trauma, had PTSD symptoms from it, and were willing to use a mobile app Objective: To assess the feasibility, and preliminary efficacy of	fluent in English, had an active email address, and who had a PCL-C score of ≥ 25. None of the included participants had a PCL-C score lower than the recommended range (i.e., 30 to 35) for PTSD screening in general population Excluded: Individuals who were receiving any treatment for PTSD Number of participants: 49 (25 in the iCBT group, 24 in the	PTSD Coach includes sections that provide participants with CBT-based tools, the program appears to be much less structured than other iCBT software Number of sessions: The program was not broken down into sessions	received information on PTSD Coach, allowing them to use it if they would like This group received no intervention during the treatment period	Secondary outcomes: • Acceptability • Feasibility Follow up: 1 month (post-treatment)
	and preliminary efficacy of the iCBT-based app (PTSD Coach) to inform a larger- scale trial	WL group) Mean age: 45.7 (SD = 13.9) years in the total sample (age was NR by group)	Treatment duration: 4 weeks		



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		Sex: 81.6% female; 18.4% male Type of trauma: Various; details were NR Mean time since trauma: NR Baseline PTSD severity: Mean PSS-I score of 63.00 (SD = 11.28) in the iCBT group; mean PSS-I score of 59.33.4 (SD = 11.34) in the WL group Comorbidities: NR	Guidance: The program did not include therapist guidance		
Engel et al. (2015), ⁵⁴ US Funding source : NR	Study design: RCT, single blind (the outcome assessor was blinded), 1:1 ratio Setting: Participants were referred from one of three Veterans Affairs and four Army clinics by their primary care providers after screening positive for PTSD Objective: To examine the effectiveness of a nurseassisted online CBT intervention for war-related PTSD compared with optimized usual care PTSD treatment	Inclusion criteria: War veterans who reported war-related trauma (including military sexual trauma) that were seeking care at a participating Veterans Affairs or Department of Defense care clinics. Participants were required to screen positive on a four-item PTSD screener and meet criteria for PTSD on the CAPS using the 1 to 2 scoring rule Excluded: Individuals who received trauma-focused mental health treatment in the previous two months; had a recent history of failed specialty mental health treatment for PTSD or associated conditions; acute psychosis, psychotic episode, or psychotic disorder diagnosed	Nurse-guided trauma- focused iCBT (DESTRESS-PC) plus optimized usual primary care PTSD treatment. The program included educational information about PTSD, stress, trauma, depression, and survivors' guilt, as well as strategies to manage anger and promote better sleep hygiene and cognitive reframing techniques Number of sessions: 3 modules per week for 6 weeks (18 modules total)	Optimized usual PTSD care that consisted of usual primary care PTSD treatment augmented with low intensity care management, feedback to the primary care provider, and training of the clinic providers in management of PTSD. The treatment was designed to approximate the level of PTSD care normally available in primary care while incorporating nonspecific treatment elements of the DESTRESS intervention (e.g., participants received	Primary outcomes: PCL-C Secondary outcomes: PHQ-8 PHQ-15 SF-36 Follow up: 6 weeks, 12 weeks (post-treatment), and 18 weeks



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		within the past two years; active substance dependence in the past year; active suicidal or homicidal ideation within the past two months; current antipsychotic or mood-stabilizing medication; unstable administration schedule or dosing of any antidepressant, anxiolytic, or sedative-hypnotic during the last month; or acute or unstable physical illness. Number of participants: 80 (43 in iCBT group, 37 in optimized usual care group) Mean age: 36.2 (SD = 7.75) years in the iCBT group; 36.7 (SD = 9.75) years in the optimized usual care group Sex: 18.75% female; 81.25% male Type of trauma: War-related trauma (including military sexual trauma) Mean time since trauma: NR Baseline PTSD severity: Mean PCL-C score of 58.00 (SD = 9.95) in the iCBT group; mean PCL-C score of 54.48 (SD = 11.23) in the optimized usual care group	Treatment duration: 6 weeks with access to the program for 8 weeks (extended to 10 weeks in very rare cases) Guidance: Participants were encouraged to contact the study nurses for assistance if needed. The study nurses had access to a private portion of the website where they could monitor compliance and symptom severity	three 15 minute phone calls from the DESTRESS nurse)	



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		Comorbidities: The study did not screen for comorbid conditions			
Knaevelsrud et al. (2015), ⁶⁸ Iraq Funding source: Unclear	Study design: RCT, open label, 1:1 ratio Setting: Participants were recruited between January 2009 and November 2011 using radio, TV, newspaper, and health-related websites in Iraq. Information about the study was regularly posted to a Facebook page Objective: To evaluate the effectiveness of an iCBT intervention for the treatment of PTSD in a highly unstable setting (Iraq)	Inclusion criteria: Arabic- speaking adults (≥ 18 and ≤ 65 years of age) with a history of trauma (according to the DSM-IV criteria) accompanied by post-traumatic stress symptoms. The PDS was used to identify if patients reported the minimum number of symptoms required by DSM-IV for each of the symptom clusters. The minimum score on the PDS to be included in the trial was 11 (indicating moderate symptom severity) Excluded: Individuals who were receiving treatment elsewhere, had substance abuse or dependence, high risk of suicide, psychotic symptoms, or low symptom severity Number of participants: 159 (79 in iCBT group, 80 in WL group) Mean age: 29.11 (SD = 8.20) years in the iCBT group; 27.15 (SD = 6.48) years in the WL group Sex: 76% female; 24% male	Therapist-guided trauma-focused iCBT (interapy, which was translated into Arabic and culturally adapted). Treatment involved structured writing activities over three phases: one, self-confrontation with the traumatic event; two, cognitive restructuring; and three, social sharing Number of sessions: 10 writing assignments Treatment duration: 5 weeks Guidance: Support was provided weekly either in face-to-face sessions of via Skype. Assignment reminders were provided by email and telephone	WL control. Participants were on a wait-list for six weeks (until after post-treatment assessments) and then received the iCBT intervention	Primary outcomes: PDS Secondary outcomes: HSCL-25 SCL EUROHIS-QOL Follow up: 5 weeks (post-treatment) and 3 months (there no data for the wait-list group available at second follow up)



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		Type of trauma: War-related; specifically killing of a family member (n = 24), sexual violence related to war or sexual abuse (n = 63), violence of war or torture (n = 30), others (e.g., kidnapping, witnessing bomb attacks; n = 42)			
		Mean time since trauma: NR as a mean. Within the CBT group, 13%, 22%, and 65% of participants experienced trauma less than 6 months prior, 6 months to 3 years prior, or more than 3 years prior, respectively. Within the WL group, 10%, 18%, and 70% of participants experienced trauma less than 6 months prior, 6 months to 3 years prior, or more than 3 years prior, respectively			
		Baseline PTSD severity: Mean PDS score of 30.87 (SD = 8.13) in the iCBT group; mean PDS score of 31.81 (SD = 7.13) in the WL group Comorbidities: NR			
Ivarsson et al. (2014), ⁶⁹ Sweden Funding source: A grant from Linköping	Study design: RCT, single blind (the outcome assessor was blinded), 1:1 ratio	Inclusion criteria: Adult (≥18 years of age) residents of Sweden who had access to a computer, were able to read and understand the Swedish	Therapist-guided trauma-focused iCBT. The program included psychoeducation, anxiety coping skill	Minimal support via the internet control group. Participants were presented with general questions on wellbeing,	Primary outcomes: • IES-R • PDS Secondary outcomes:
University		language, were on a current	training, imaginal	stress, and sleep on a	BDI-II

Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
	Setting: Participants were recruited from the general population using advertisements in national and local newspapers that sought participants with PTSD willing to receive treatment over the internet Objective: To investigate the effectiveness of a guided iCBT program for the treatment of PTSD	stable dose of medication (for at least the last 3 months) or were medication-free, and who met the DSM-IV criteria for chronic PTSD Excluded: Individuals with imminent suicide risk, concurrent psychologic treatment, alcohol abuse, ongoing trauma or trauma within the past three months, or those who reported symptoms following childhood abuse Number of participants: 62 (31 in iCBT group; 31 in control group) Mean age: 44.8 (SD = 11.2) years in the iCBT group; 47.2 (SD = 12.2) years in the control group Sex: 82.3% female; 17.7% male Type of trauma: Sexual, physical, and/or psychological abuse by partner (n = 14); life-threatening disease (n = 8); severe offense by significant other (perceived as threatening to integrity; n = 6); life-threatening accident (n = 5); non-sexual assault by a stranger (n = 5); murder of close relative (n = 4); non-sexual assault by a	exposure, and cognitive restructuring Number of sessions: 8 text-based modules Treatment duration: 8 weeks Guidance: Support was provided by therapist students in their later semester of a five year clinical psychology program who had received clinical supervision in CBT. Support consisted of guidance, encouragement, and individual feedback on completed assignments. Therapist feedback was provided once every week via an encrypted web service (through emails). The average time spent with the participants was 28 minutes per week	weekly basis. The purpose of this group was to stay in touch and provide support during the waiting period. This group was offered the iCBT treatment after post-treatment measured were collected	QOLI QOLI CGI-I Follow up: 8 weeks (post-treatment) and 1 year (there no data for the wait-list group available at second follow up)

Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		family member (n = 3); death of a close relative (n = 3); severe maltreatment in health care (n = 3); multiple stressors (n = 3); life-threatening disease of a close relative (n = 2); military combat (n = 2); torture (n = 1); rape by stranger (n = 1); rape by family member (n = 1); and tsunami disaster (n = 1) Mean time since trauma: NR			
		Baseline PTSD severity: Mean IES-R score of 54.65 (SD = 13.16) in the iCBT group; mean IES-R score of 54.87 (SD = 15.48) in the control group Comorbidities: The study did not screen for comorbid conditions			
Spence et al. (2011), ⁵⁵ Australia Funding source: Supported by a research fellowship from the New Wales Institute of Psychiatry	Study design: RCT, open- label, 1:1 ratio Setting: Participants were recruited from a website that offers participation in online psychological interventions (virtualclinic.org.au) and advertisements in a local newspaper and in an email newsletter sent by a government institution	Inclusion criteria: Adult (≥ 18 years of age) residents of Australia who had access to a computer and printer, were on a stable dose of medication for at least one month (with no intention of changing the dose throughout the study) or were medication-free, and met the DSM-IV criteria for PTSD (as assessed with the MINI) Excluded: Individuals who were currently participating in CBT,	Therapist-guided trauma-focused iCBT. The program included psycho-educational materials, strategies for monitoring and challenging thoughts, education, and guidelines about practising exposure and challenging dysfunctional beliefs, and information about relapse prevention	WL control. Participants were on a wait-list for eight weeks (until after post-treatment assessments) and then received the iCBT intervention	Primary outcomes: PCL-C Secondary outcomes: PHQ-9 GAD-7 SDS Follow up: 8 weeks (post-treatment) and 3 months (there no data for the wait-list group available at second follow up)



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
	Objective: To explore the efficacy of an iCBT program for the treatment of PTSD	experiencing a psychotic mental illness, or who had severe symptoms of depression or were highly dissociative Number of participants: 42 (23 in iCBT group; 19 in WL group) Mean age: 43.0 (SD = 15.2) years in the iCBT group; 42.0 (SD = 10.4) years in the WL group Sex: 81% female; 19% male Type of trauma: Various; most participants had experienced multiple types of trauma. Most common traumas were physical assault (74%), unwanted sexual experience (70%), sexual assault (57%), transportation accidents (52%), and other stressful experiences (52%) Mean time since trauma: NR Baseline PTSD severity: Mean PCL-C score of 60.78 (SD = 10.03) in the iCBT group; mean PCL-C score of 57.00 (SD = 9.69) in the WL group Comorbidities: Participants were screened for comorbid depression, generalized anxiety disorder, panic disorder with or	Number of sessions: 7 modules Treatment duration: 8 weeks Guidance: Support was provided by a clinical psychologist via telephone, email, and forum posts. The purpose of the guidance was to monitor mood and provide support and encouragement. The mean therapist time per participant was 103.91 (SD = 96.53) minutes throughout the course of the program		



Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		without agoraphobia, social phobia, and obsessive-compulsive disorder and pretreatment and at three-month follow up			
iCBT Versus i-non-CBT	Interventions				
Littleton et al. (2016), ⁷⁰ US Funding source: NR	Study design: RCT, openlabel, 1:1 ratio Setting: "Participants were recruited via posted advertisements on all four campuses (e.g., fliers, campus bus advertisements, advertisements in campus newspapers), postings on university psychology department participant management websites, as well as via social media (e.g., a study Facebook page, postings in student Facebook groups)"70 (p. 3). Objective: To determine the effectiveness of a therapist-facilitated, online CBT program tailored to meet the needs of rape victims with PTSD	Inclusion criteria: Women who were enrolled as a student at one of four universities or community colleges, had suffered raperelated trauma, and met the diagnostic criteria for PTSD (according to PSS-I) Excluded: Individuals currently receiving psychotherapy, change in psychotropic medication in past three months, active suicidality, or that met the DSM-IV criteria for current substance dependence Number of participants: 87 (46 in iCBT group; 41 in i-non-CBT group) Mean age: 22 years (range = 18 to 42 years) for the whole sample Sex: 100% female in both groups Type of trauma: All participants had experienced a completed	Therapist-guided iCBT (The From Survivor to Thriver Program). The program consisted of three phases: one, psychoeducation relating to PTSD; two, an introduction to the cognitive model and how to identify and respond to distorted or unhelpful automatic thoughts; three, the use of cognitive behavioural techniques to address specific concerns common among women following sexual assault (e.g., difficulties with trust, self-blame for the assault) Number of sessions: 9 modules Treatment duration: 14 weeks Guidance: Therapist	Access to a psychoeducational website that contained informational content from the first three treatment modules (which focused on relaxation, grounding, and coping strategies). The website did not contain multimedia content or interactive exercises from the iCBT program Patients in both groups received scheduled check-in phone calls from study staff (doctoral students in psychology) generally once every two weeks	Primary outcomes: PSS-I Secondary outcomes: Interference (at school, work, relationships, and overall; scored between 0 and 3) CES-D FDAS Therapist competence Therapist and treatment satisfaction (STTS-R) Working alliance (WAI-S) Follow up: 14 weeks (post-treatment) and 24 weeks
		rape since the age of 14	guidance was provided		

Author(s) (Publication Year), Country, Funding Source	Study Design, Setting, and Objective	Patient Characteristics	Intervention(s)	Comparator(s)	Clinical Outcomes; Length of Follow Up
		Mean time since trauma: NR Baseline PTSD severity: Mean PSS-I score of 11.2 (SD = 5.8) in the iCBT group; mean PSS-I score of 10.4 (SD = 8.5) in the i-non-CBT group Comorbidities: NR	by doctoral students in the form of scheduled check-in phone calls approximately once every two weeks. The aim of these calls was to assess the participants' mood, substance use, suicidal or self-harming thoughts, frequency of logging into the program, time spent in enjoyable activities, and to discuss technical problems or distress related to the program		
Litz et al. (2007), ⁷¹ US Funding source: Supported by a grant from the National Institute of Mental Health	Study design: RCT, single blind (the outcome assessor was blinded), 1:1 ratio Setting: Participants were recruited through advertisements and presentations at Department of Defense websites Objective: To evaluate the effectiveness of a therapist-assisted iCBT program versus internet-based supportive counselling for the treatment of PTSD	Inclusion criteria: Department of Defense service members (≥ 21 and ≤ 65 years of age) who had PTSD (according to DSM-IV criteria) as a result of the Pentagon attack on September 11th or combat in Iraq or Afghanistan Excluded: Individuals with active substance dependence, current suicidal ideation, history of psychotic disorder, PTSD or depression prior to most recent trauma, current psychiatric treatment, marked ongoing stressors, inadequate social support, or recent changes in medication	Therapist-guided trauma-focused iCBT (DESTRESS). The program included stress management strategies and graduated, self-guided, in vivo exposure Number of sessions: 7 trauma writing sessions Treatment duration: 8 weeks Guidance: Support was provided by a therapist using initial face-to-face contact, telephone, and emails (both scheduled	Internet-delivered supportive counselling. This control group received monitoring of non-trauma-related concerns and online writing about these experiences. Psychoeducational materials were available. Participants were asked to visit the website daily to log their symptoms, read about stress and stress management, and to write about current concerns. Support was provided to the participants at their	Primary outcomes: PSS-I Secondary outcomes: BDI BAI Follow up: 8 weeks (post-treatment), 3 months, and 6 months



				Length of Follow Up
	Number of participants: 45 (24 in iCBT group; 21 in i-non-CBT group) Mean age: 38.63 (SD = 9.41) years in the iCBT group; 39.86 (SD = 7.72) years in the i-non-CBT group Sex: 22.2% female; 77.8% male Type of trauma: Combat exposure (9/11 attack on the Pentagon or combat in Iraq or Afghanistan) Mean time since trauma: NR Baseline PTSD severity: Mean PSS-I score of 26.72 (SD = 9.02) in the iCBT group; mean PSS-I score of 29.16 (SD = 9.93) in the i-non-CBT group Comorbidities: NR	and when requested by the participant)	request through initial face-to-face contact, telephone, and email. Therapists were instructed to be empathetic and validating, non-directive and supportive, and to focus on non-traumarelated present-day concerns	

AUDIT = Alcohol Use Disorders Identification Test; BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; B-IPF = Brief Inventory of Psychosocial Functioning; CAPS = Clinician-Administered PTSD Scale; CBT = cognitive behavioural therapy; CES-D = Center for Epidemiological Studies – Depression Scale; CGI = Clinical Global Impression – Improvement; DESTRESS = Delivery of Self Training and Education for Stressful Situations; DESTRESS-PC = Delivery of Self Training and Education for Stressful Situations – Primary Care version; DSM = Diagnostic and Statistical Manual of Mental Disorders; FDAS = Four Dimensional Anxiety Scale; GAD-7 = Generalized Anxiety Disorder 7-Item Scale; HSCL = Hopkins Symptom Checklist; iCBT = internet-delivered cognitive behavioural therapy; i-non-CBT = internet-delivered non-CBT; IES-R = Impact of Event Scale – Revised; MINI = Mini International Neuropsychiatric Interview Version 5.0.0; NR = not reported; PCL-5 = Post-Traumatic Stress Disorder Checklist for *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*; PCL-C = PTSD Checklist – Civilian; PCL-M = Post-Traumatic Stress Disorder Checklist – Military; PDS = Post-Traumatic Stress Diagnostic Scale; PHQ-8 = Patient Health Questionnaire – 9 Item; PHQ-9 = Patient Health Questionnaire – 9 Item; PSS-I = Post-Traumatic Stress Disorder Symptom Scale – Interview; PTSD = post-traumatic stress disorder; QOLI = Quality of Life Inventory; RCT = randomized controlled trial; SCL = The somatization subscale of the Symptom Checklist – 90; SD = standard deviation; SDS = Sheehan Disability Scale; SF-36 = Medical Outcomes Study Short Form-36; SSQ = Social Support Questionnaire; STTS-R = Satisfaction with Therapy and Therapist Scale – Revised; TAU = treatment as usual; WAI-S = Working Alliance Inventory – Short Form; WIRED = Warriors Internet Recovery & Education; WL = wait-list.

OPTIMAL USE REPORT Internet-Delivered Cognitive Behavioural Therapy for Post-Traumatic Stress Disorder

Source: Lewis et al. (2018).40



Table 17: Brief Description of Common Outcome Assessment Scales

Outcome Assessment Scale	Reference	Description	
BAI	Julian, 2011 ²²²	A 21-question multiple-choice self-report inventory used to evaluate the severity of anxiety symptoms. The total score (sum of the 21 items) classifies anxiety severity: 0-9 (normal to minimal anxiety), 10-18 (mild-to-moderate anxiety), 19-29 (moderate to severe anxiety) and ≥30 (severe anxiety).	
BDI (I or II)	Beck, 1961 ²²³	A 21-question multiple-choice self-report inventory used to evaluate the severity of depressive symptoms. Each answer is scored on a value of 0 to 3. A total score is calculated: 0-13 (minimal depression), 14-19 (mild depression), 20-28 (moderate depression), and ≥29 (severe depression).	
CAPS (CAPS-5)	Lewis, 2017 ⁵²	A 30-item structured interview that corresponds to the <i>DSM-V</i> criteria for PTSD. This scale has been considered the "gold standard" for PTSD assessment. Higher scores indicate more severe PTSD symptoms.	
CES-D	Littleton, 2016 ⁷⁰	A 20-item, self-report measure of depressive symptoms occurring within the past week. Total scores can range from 0 to 60. A total score above 12 suggest clinically significant depressive symptoms.	
FDAS	Littleton, 2016 ⁷⁰	A 35-item measured used to quantify physiological, cognitive, emotional, and behavioral anxiety symptoms occurring within the past week. Total scores can range between 35 and 175. Higher scores indicate more severe symptoms of anxiety.	
IES-R	Kersting, 2013 ²²⁴	A 22-item scale used to assess post-traumatic stress symptoms categorized into three symptom clusters (intrusions, avoidance, and hyperarousal). Frequency of symptoms over the past week is scores on a 4-point measurement scale. Higher scores indicate increased symptom severity.	
PCL-C or PCL-M	Cernvall, 2017 ²²⁵	A 17-item self-report instrument used to measure PTSD symptoms. Each item is rated between 1 (not at all) and 5 (extremely). Higher scores indicate increased PTSD symptom severity. A score of 44 has been suggested as a cut-off for the diagnosis of PTSD. Total score ranges from 17 to 85, with higher scores indicating more severe PTSD symptoms.	
PDS	Franklin, 2017 ²²⁶	A 48-item self-report measure of PTSD symptom severity. Total scores can range between 0 and 51, with higher scores indicating higher symptom severity.	
PHQ-9	Johnston, 2011 ²²⁷	A 9-item measure of the symptoms and severity of major depressive disorder based on the DSM-IV criteria. Eac question is scored on a value of 0 to 3, with higher scores indicating more severe symptoms. A total score of 10 the PHQ-9 has been identified as an important threshold for identifying major depression that meets the DSM-IV criteria.	
PSS-I	Littleton, 2016 ⁷⁰	An interview measure that consists of 17 items, each rated on a scale of 0 (does not interfere at all) to 3 (interferes very much). Total score ranges from 0 to 51, with higher scores indicating more severe PTSD symptoms.	

BDI-II = Beck Depression Inventory – II; CAPS = Clinician-Administered Post-Traumatic Stress Disorder Scale; CES-D = Center for Epidemiological Studies – Depression Scale; DSM = Diagnostic and Statistical Manual of Mental Disorders; FDAS = Four Dimensional Anxiety Scale; IES-R = Impact of Event Scale – Revised; PCL-C = Post-Traumatic Stress Disorder Checklist – Civilian Version; PCL-M = Post-Traumatic Stress Disorder Checklist – Military Version; PDS = Post-Traumatic Stress Diagnostic Scale; PHQ-9 = Patient Health Questionnaire; PSS-I = Post-Traumatic Stress Disorder Symptom Scale – Interview; PTSD = post-traumatic stress disorder.



Appendix 8: Critical Appraisal of Primary Studies

Table 18: Cochrane Risk of Bias Assessment for Included Randomized Controlled Trials

	Selection Bias		Performance Bias	Detection Bias	Attrition Bias	Reporting Bias	Other Bias
Study Citation	Risk of Bias in Sequence Generation	Risk of Bias in Allocation Concealment	Risk of Bias in Binding of Participants and Personnel	Risk of Bias in Binding of Outcome Assessment	Risk of Bias From Incomplete Outcome Data	Risk of Bias From Selective Outcome Reporting	Risk of Bias From Other Biases
Engel (2015) ⁵⁴	Low	Unclear	High	Low	Low	Low	Low
Ivarsson (2014) ⁶⁹	Low	Unclear	High	Low	Low	Low	High
Knaevelsrud (2015) ⁶⁸	Low	Unclear	High	Low	High	Low	Low
Krupnick (2017) ⁶⁶	Unclear	Unclear	High	Low	High	Low	High
Kuhn (2017) ⁵³	Low	Unclear	High	Low	Low	Low	Low
Lewis (2017) ⁵²	Low	Low	High	Low	Low	Low	High
Littleton (2016) ⁷⁰	Low	Unclear	High	High	Low	Low	Low
Litz (2007) ⁷¹	Unclear	Unclear	High	Low	High	Low	High
Miner (2016) ⁶⁷	Unclear	Unclear	High	Low	Low	Low	Low
Spence (2011) ⁵⁵	Low	Unclear	High	High	High	Low	Unclear

Note: The assessment rating judgements in the table were made by the authors of the Cochrane review.

Source: Lewis et al. (2018).40



Appendix 9: Clinical Efficacy of Guided Internet-Delivered Cognitive Behavioural Therapy Versus Wait-List

In order to support the scenario analysis of guided internet-delivered cognitive behavioural therapy (iCBT) compared with wait-list or usual care, findings from the CADTH clinical review were reanalyzed using the six studies that examined nurse- or therapist-guided iCBT programs, excluding data from the two studies on PTSD Coach, an unguided iCBT program. This very low-quality evidence indicated that guided iCBT was more effective than wait-list or usual care for severity of post-traumatic stress disorder symptoms at post-treatment (standard mean deviation [95% confidence interval] = -0.80 [-1.18 to -0.42]; participants = 391; randomized controlled trials = 6; $I^2 = 65\%$; Figure 17). Although this analysis was not conducted as part of the Cochrane review, these results were used for scenario analyses in the economic section of this health technology assessment.

Figure 17: Comparison of Guided Internet-Delivered Cognitive Behavioural Therapy and Wait-List; Outcome: Severity of Post-Traumatic Stress Disorder Symptoms (Post-Treatment)

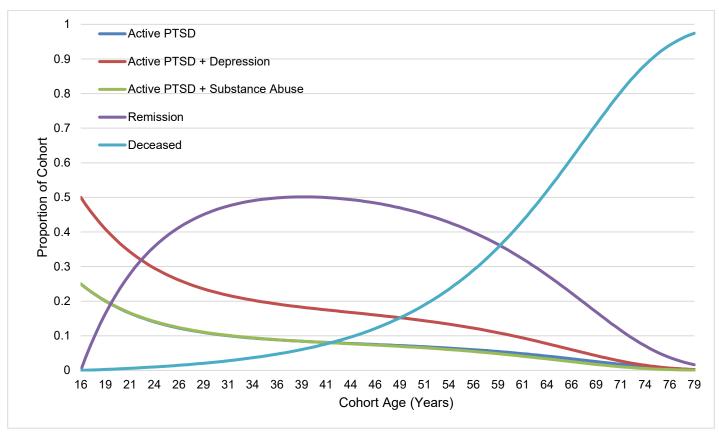
	Gui	ded iCB	T	V	Vait list			Std. Mean Difference	Std. Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	
Engel 2015	43.8	18.33	30	47.36	17.45	25	17.5%	-0.20 [-0.73, 0.34]		
Ivarsson 2014	17.32	9.86	31	25.04	11.14	31	17.9%	-0.72 [-1.24, -0.21]		
Knaevelsrund 2015	20.29	12.45	79	30.17	8.7	80	22.3%	-0.92 [-1.24, -0.59]		
Krupnick 2017	3.58	0.3	16	3.91	0.4	15	13.2%	-0.91 [-1.66, -0.17]		
Lewis 2017	17.93	12.25	21	36.53	7.1	21	13.4%	-1.82 [-2.55, -1.09]		
Spence 2011	44.78	17.29	23	51.79	12.51	19	15.7%	-0.45 [-1.06, 0.17]		
Total (95% CI)			200			191	100.0%	-0.80 [-1.18, -0.42]	•	
Heterogeneity: Tau² = Test for overall effect:				5 (P =	0.01); l²	= 65%			-4 -2 0 2 Favours Gudied iCBT Favours WL	4

CI = confidence interval; iCBT = internet-delivered cognitive behavioural therapy; IV = inverse variance; SD = standard deviation; Std. = standard; WL = wait-list. Source: Lewis et al. (2018).⁴⁰



Appendix 10: Proportion of Patients by Health State Over Time — Economic Evaluation

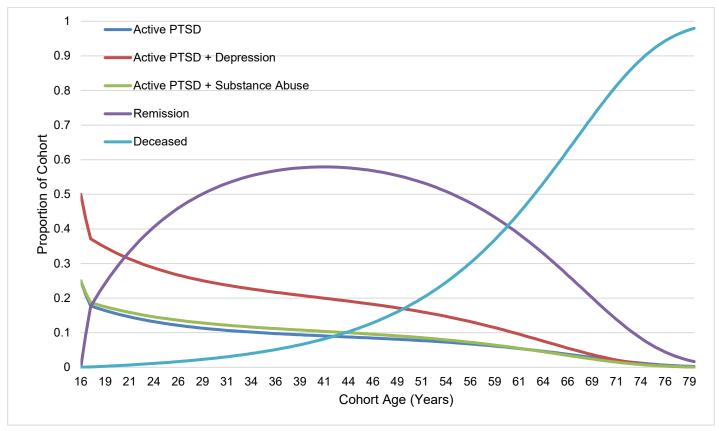
Figure 18: Proportion of Patients by Health State Over Time — Reference Case, No Additional Treatment



PTSD = post-traumatic stress disorder.



Figure 19: Proportion of Patients by Health State Over Time — Reference Case, Internet-Delivered Cognitive Behavioural Therapy



PTSD = post-traumatic stress disorder.



Appendix 11: Additional Scenario and Sensitivity Analysis Results — Economic Evaluation

Table 19: Additional Scenario and Sensitivity Analysis Results

Scenario or Sensitivity Analysis	Strategies	Expected Costs, \$	Expected QALYs	Incremental Costs, \$	Incremental QALYs	Sequential ICUR, \$/QALY Gained	Probability of Being Cost- Effective at a Willingness- to-Pay of \$50,000/QALY
Scenarios							
Societal Perspective	No additional treatment	36,327	22.80				100%
	iCBT	34,768	23.12	-1,559	0.32	Dominant	
Therapist Support	No additional treatment	16,174	22.81				100%
Provided by a Registered Non-Physician Therapist	iCBT	16,098	23.13	-77	0.32	Dominant	
All Patients Receive	No additional treatment	16,179	22.79				100%
Referral to iCBT	iCBT	16,009	23.11	-170	0.32	Dominant	
Comorbidities Develop After	No additional treatment	16,234	23.30				100%
Entry Into Model Over Course of One Year	iCBT	16,051	23.55	-183	0.25	Dominant	
Sensitivity Ana	lyses					-	
Additional Costs for	No additional treatment	21,570	22.78				100%
Comorbid Conditions Applied	iCBT	21,027	23.09	-542	0.32	Dominant	
No Change in Recovery for	No additional treatment	15,452	23.81				100%
Patients With Comorbidities Compared With Patients Without Comorbidities	iCBT	15,213	23.52	-240	0.33	Dominant	
One-Year Time Horizon	No additional treatment	511	0.60				91%

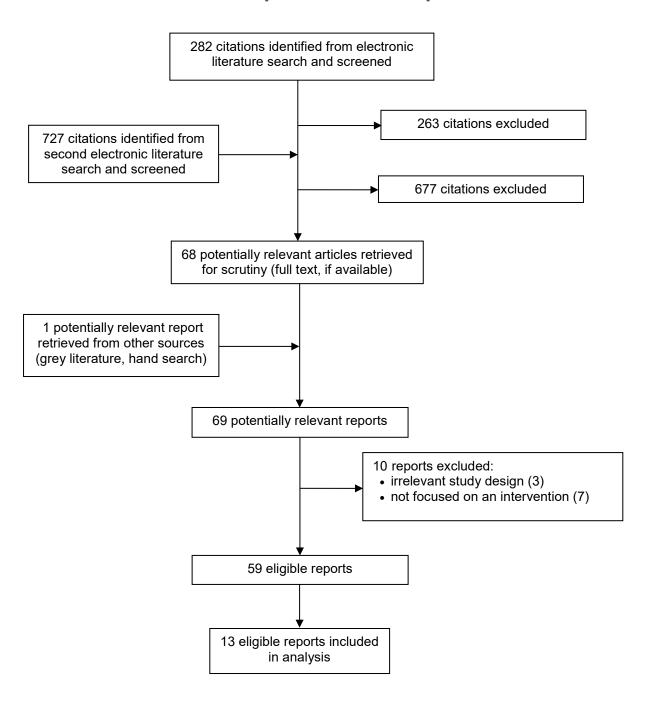


Scenario or Sensitivity Analysis	Strategies	Expected Costs, \$	Expected QALYs	Incremental Costs, \$	Incremental QALYs	Sequential ICUR, \$/QALY Gained	Probability of Being Cost- Effective at a Willingness- to-Pay of \$50,000/QALY
	iCBT	999	0.62	487	0.028	17,435	
Assumed Any Recurrence Was Not	No additional treatment	9,451	24.56				100%
Related to Initial Trauma	iCBT	8,690	25.01	-762	0.46	Dominant	

ICUR = incremental cost-utility ratio; iCBT = internet-delivered cognitive behavioural therapy; QALY = quality-adjusted life-year.



Appendix 12: Selection of Included Studies — Perspectives and Experiences Review





Appendix 13: Characteristics of Included Primary Studies — Perspectives and Experiences

Table 20: Characteristics of Included Studies

First Author (Publication Year), Country	Study Design (Data Analysis)	Study Objectives	Participant Characteristics, Sample Size (n)	Inclusion Criteria	Intervention Type	Data Collection
Hundt (2018), US ⁹⁹	NS (grounded theory)	To understand the attitudes, experiences, and barriers and facilitators to treatment for veterans who enrolled in a VA PTSD specialty clinic and were offered either PE or CPT	24 veterans	Veterans with a primary psychiatric diagnosis of PTSD who were admitted to the PTSD clinic and judged to be appropriate to for PE or CPT, offered PE or CPT, but not starting PE or CPT within 12 months	PE and CPT	Interviews
Cook (2017), US ¹⁰⁰	NS (grounded theory)	To assess how residential treatment providers within the VA conceptualize and address patient readiness for trauma-focused EBTs for PTSD	99 psychologists, 62 social workers, 4 psychiatrists, 3 nurses, 4 "other"	NS	PE and CPT	Semi-structured telephone interview
Hundt (2017), US ¹⁰¹	NS (grounded theory)	To explore how veterans living with PTSD experience the use of EBT in their treatment	23 veterans	Veterans who had completed at least 8 sessions of PE or CPT in a VA PTSD clinic	PE and CPT	Interviews
Stige (2017), Norway ¹⁰²	NS (hermeneutic phenomenological approach)	To explore how former trauma clients experienced the inclusion of skill training in their treatment, their ways of relating	13 patients	NS	Skills training components of a trauma specific stabilization group	Semi-structured interviews conducted over two time points



First Author (Publication Year), Country	Study Design (Data Analysis)	Study Objectives	Participant Characteristics, Sample Size (n)	Inclusion Criteria	Intervention Type	Data Collection
		to and using these skills, and how this changed over time				
Tong (2017), Australia ¹⁰³	NS (interpretive phenomenological approach)	To explore young people's reactions to a trauma-focused treatment for PTSD in FEP	8 participants	Individuals aged 15 to 25 years with a DSM-IV psychotic disorder or mood disorder with psychotic features and having current trauma symptoms that meet the full criteria for PTSD using CAPS	Intervention drawing on principles of CBT	Semi-structured interviews
Whealin (2016), US ¹¹¹	Mixed-methods (content analysis)	To identify the types of eHealth tools that veterans with PTSD and comorbid CMCs use, understand how they currently use eHealth technology to self-manage their unique health care needs, and identify new ehealth resources that veterans feel would empower them to better manage their health	10 veterans	Veterans with three or more chronic conditions and experience using technology to help them care for their health or manage their health care, and having received care at the VA facility	NS	Focus groups
Hamblen (2015), US ¹⁰⁴	NS (NS)	To examine VA PTSD clinic director perspectives on the implementation of PE and CPT in PTSD	31 psychologists, 5 social workers, 2 psychiatrists	NS	PE and CPT	Semi-structured interviews



First Author (Publication Year), Country	Study Design (Data Analysis)			Inclusion Criteria	Intervention Type	Data Collection	
		outpatient programs to better understand the local challenges be faced					
Hundt (2015), US ¹⁰⁵	NS (grounded theory)	To enhance knowledge of facilitators to EBP initiation by examining veterans' realworld experiences initiating EBP for PTSD and how they overcame barriers to EBP in their own lives	23 veterans	Veterans who had completed at least 8 sessions of EBP in a VA PTSD clinic	PE and CPT	Interviews	
McCormack (2015), Australia ¹⁰⁶	NS (interpretive phenomenological analysis)	To explore the "lived" experience of trauma-focused therapists working with mental health in-patients with complex trauma histories	2 psychiatric consultants, 1 clinical psychologist, 1 psychologist/clinical manager	NS	NS	Interviews	
Cook (2014), US ¹⁰⁷	NS (NS)	To present VA residential PTSD treatment provider perceptions of dissuading factors to the use of PE and CPT	110 psychologist, 66 social workers, 11 nurses, 5 psychiatrists, 6 "other"	NS	PE and CPT	Semi-structured telephone interviews	
Lawrence (2014), UK ¹⁰⁸	NS (interpretive phenomenological analysis)	To produce an in-depth understanding of the experience of completing a course of compassion-focused therapy for PTSD and the process of	9 patients	People who had completed two CFT groups for PTSD	CFT	Interviews	



First Author (Publication Year), Country	Study Design (Data Analysis)	Study Objectives	Participant Characteristics, Sample Size (n)	Inclusion Criteria	Intervention Type	Data Collection
		developing self- compassion				
Lowe (2014), UK ¹⁰⁹	Phenomenological and idiographic (interpretive phenomenological analysis)	To gain an understanding of the aspects of trauma-focused CBT for PTSD that service users find important in contributing to their improvement	9 patients	NS	Trauma- focused CBT	Interviews
Reeves (2014), Canada ¹¹⁰	Naturalistic paradigm informed by Indigenous inquiry(grounded theory)	Investigate the use of traditional Indigenous healing alongside Western mental health services to address issues related to recovery from sexual trauma at a culture-based multiservice health centre	3 traditional healers/medicine people, 5 traditional counsellors, 1 traditional counsellor/traditional teacher, 1 Elder	NS	NS	Two sets of interviews

CAPS = clinician-administered PTSD scale; CBT = cognitive behavioural therapy; CFT = compassion-focused therapy; CMC = chronic medical conditions; CPT = cognitive processing therapy; DSM = Diagnostic and Statistical Manual of Mental Disorders; EBP = evidence-based psychotherapies; EBT = evidence-based therapies; FEP = first-episode psychosis; NS = not specified; PE = prolonged exposure; PTSD = post-traumatic stress disorder; VA = Department of Veterans Affairs (US).



Appendix 14: Critical Appraisal of Included Publications — Perspectives and Experiences Review

			Qualitativ	e Studies Asse	ssed Using CA	SP Qualitative	Checklist ²²⁸			
First Author (Year), Country	Clear statement of the aims of the research?	Qualitative methodology appropriate?	Research design appropriate to address the aims of the research?	Recruitment strategy appropriate to the aims of the research?	Data collected in a way that addressed the research issue?	Relationship between researcher and participants been adequately considered?	Ethical issues been taken into consideration?	Data analysis sufficiently rigorous?	Clear statement of findings?	Relevant to the current review?
Hundt (2018), US ⁹⁹	+	+	+	+	+	_	+	+	+	_
Cook (2017), US ¹⁰⁰	+	+	+	+	+	-	+	+	+	-
Hundt (2017), US ¹⁰¹	+	+	+	+	+	_	+	+	+	-
Stige (2017), Norway ¹⁰²	+	+	+	+	+	+	+	+	+	-
Tong (2017) ¹⁰³	+	+	+	+	+	+	+	_	+	-
Whealin (2016) ¹¹¹	+	+	+	+	+	+	+	_	+	-
Hamblen (2015), US ¹⁰⁴	+	+	+	+	+	-	-	-	+	-

			Qualitativ	ve Studies Asse	essed Using CA	SP Qualitative	Checklist ²²⁸			
First Author (Year), Country	Clear statement of the aims of the research?	Qualitative methodology appropriate?	Research design appropriate to address the aims of the research?	Recruitment strategy appropriate to the aims of the research?	Data collected in a way that addressed the research issue?	Relationship between researcher and participants been adequately considered?	Ethical issues been taken into consideration?	Data analysis sufficiently rigorous?	Clear statement of findings?	Relevant to the current review?
Hundt (2015), US ¹⁰⁵	+	+	+	+	+	_	+	+	+	-
McCormack (2015) ¹⁰⁶	+	+	+	+	+	+	+	+	+	_
Cook (2014), US ¹⁰⁷	+	+	+	+	+	_	-	+	+	-
Lawrence (2014) ¹⁰⁸	+	+	+	+	+	+	+	+	+	_
Lowe (2014), UK ¹⁰⁹	+	+	+	+	+	_	+	+	+	-
Reeves (2014), Canada ¹¹⁰	+	+	+	+	+	+	+	+	+	-

^{+ =} yes; - = no; CASP = Critical Appraisal Skills Programme.