

CADTH Reference List

Concurrent Treatment for Substance Use Disorder and Trauma-Related Comorbidities: A 2021 Update

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Key Messages

- Two systematic reviews and 8 randomized controlled trials were identified regarding the clinical effectiveness of concurrent treatment for patients with substance use disorders and comorbid post-traumatic stress disorder, anxiety, or depression.
- One systematic review and 2 non-randomized studies were identified regarding the clinical effectiveness of the treatment of 1 condition for the improvement of all symptoms in patients with substance use disorder and comorbid post-traumatic stress disorder, anxiety, or depression.
- Four evidence-based guidelines were identified regarding the treatment of patients with substance use disorders and comorbid post-traumatic stress disorder, anxiety, or depression.

Research Questions

1. What is clinical effectiveness of concurrent treatment for patients with substance use disorders and comorbid post-traumatic stress disorder, anxiety, or depression?
2. What is the clinical effectiveness of the treatment of 1 condition for the improvement of all symptoms in patients with substance use disorder and comorbid post-traumatic stress disorder, anxiety, or depression?
3. What are the evidence-based guidelines regarding the treatment of patients with substance use disorders and comorbid post-traumatic stress disorder, anxiety, or depression?

Methods

Literature Search Methods

The literature search strategy used in this report is an update of 1 developed for a previous CADTH report.¹⁸ For the current report, a limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the international HTA database, Canadian and major international health technology agencies, as well as a focused internet search. No filters were applied to limit the retrieval by study type. The initial search was limited to English-language documents published between January 1, 2012 and July 17, 2017. For the current report, database searches were rerun on March 23, 2021 to capture any articles published since the initial search date. The search of major health technology agencies was also updated to include documents published since July 2017.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available.

Table 1: Selection Criteria

Criteria	Description
Population	Adults with substance use disorder and trauma-related comorbidities (PTSD, anxiety, or depression) Subgroup of interest: military veterans
Intervention	Q1 and Q3: Concurrent treatment programs for substance use disorder and comorbid PTSD, anxiety, or depression (e.g., Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure [COPE], Seeking Safety) Q2 and Q3: Treatment for 1 type of condition alone (SUD or trauma-related [PTSD, anxiety, and/or depression])
Comparator	Q1: Treatment for the primary condition alone (i.e., treatment for either SUD or PTSD), sequential treatment of comorbidities, treatment as usual, no treatment or wait list Q2: Treatment for the remaining comorbidities alone (trauma-related [PTSD, anxiety, and/or depression] or SUD), treatment as usual, no treatment or wait list Q3: Not applicable
Outcomes	Q1 and Q2: Symptoms, as measured by available scales (e.g., Beck Depression Inventory, Clinician-Administered PTSD Scale, Hamilton Anxiety Scale), duration of substance use or SUD severity, duration of abstinence, relapse prevention, health-related quality of life Q3: Recommendations
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

PTSD = post-traumatic stress disorder; Q = question; SUD = substance use disorder.

Results

Two systematic reviews,^{1,2} 8 randomized controlled trials,³⁻¹⁰ and 2 non-randomized studies^{11,12} were identified regarding the clinical effectiveness of concurrent treatment or the treatment of 1 condition for the improvement of all symptoms in patients with substance use disorder and comorbid post-traumatic stress disorder, anxiety, or depression. Four evidence-based guidelines¹³⁻¹⁶ were identified regarding the treatment of patients with substance use disorders and comorbid post-traumatic stress disorder, anxiety, or depression. No relevant health technology assessments were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in Appendix 1.

References

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Hides L, Quinn C, Stoyanov S, Kavanagh D, Baker A. Psychological interventions for co-occurring depression and substance use disorders. *Cochrane Database Syst Rev*. 2019 11 26;11(11):26. [Medline](#)
2. Hobden B, Bryant J, Carey M, et al. Finding the optimal treatment model: A systematic review of treatment for co-occurring alcohol misuse and depression. *Aust N Z J Psychiatry*. 2018 08;52(8):737-750. [Medline](#)

Randomized Controlled Trials

Concurrent Treatment Programs – Military Veteran Population

3. Brown DG, Flanagan JC, Jarnecke A, Killeen TK, Back SE. Ethnoracial differences in treatment-seeking veterans with substance use disorders and co-occurring PTSD: Presenting characteristics and response to integrated exposure-based treatment. *J Ethn Subst Abuse*. 2020 10 28:1-24. [Medline](#)
4. Lancaster CL, Gros DF, Mullarkey MC, et al. Does trauma-focused exposure therapy exacerbate symptoms among patients with comorbid PTSD and substance use disorders? *Behav Cogn Psychother*. 2020 01;48(1):38-53. [Medline](#)
5. Back SE, Killeen T, Badour CL, et al. Concurrent treatment of substance use disorders and PTSD using prolonged exposure: A randomized clinical trial in military veterans. *Addict Behav*. 2019 03;90:369-377. [Medline](#)

Concurrent Treatment Programs – General Population

6. Stapinski LA, Sannibale C, Subotic M, et al. Randomised controlled trial of integrated cognitive behavioural treatment and motivational enhancement for comorbid social anxiety and alcohol use disorders. *Aust N Z J Psychiatry*. 2021 02;55(2):207-220. [Medline](#)
7. Buckner JD, Zvolensky MJ, Ecker AH, et al. Integrated cognitive behavioral therapy for comorbid cannabis use and anxiety disorders: A pilot randomized controlled trial. *Behav Res Ther*. 2019 04;115:38-45. [Medline](#)
8. Schafer I, Lotzin A, Hiller P, et al. A multisite randomized controlled trial of Seeking Safety vs. Relapse Prevention Training for women with co-occurring posttraumatic stress disorder and substance use disorders. *Eur J Psychotraumatol*. 2019 02 19;10(1):1577092. [Medline](#)
9. Wolitzky-Taylor K, Krull J, Rawson R, Roy-Byrne P, Ries R, Craske MG. Randomized clinical trial evaluating the preliminary effectiveness of an integrated anxiety disorder treatment in substance use disorder specialty clinics. *J Consult Clin Psychol*. 2018 01;86(1):81-88. [Medline](#)
10. Wolitzky-Taylor K, Niles AN, Ries R, et al. Who needs more than standard care? Treatment moderators in a randomized clinical trial comparing addiction treatment alone to addiction treatment plus anxiety disorder treatment for comorbid anxiety and substance use disorders. *Behav Res Ther*. 2018 08;107:1-9. [Medline](#)

Non-Randomized Studies

Treatment for One Condition

11. Morton I, Hurley B, Castillo EG, et al. Outcomes of two quality improvement implementation interventions for depression services in adults with substance use problems. *Am J Drug Alcohol Abuse*. 2020;46(2):251-261. [Medline](#)
12. Bailey KA, Baker AL, McElduff P, Kay-Lambkin F, Kavanagh DJ. Do outcomes of cognitive-behaviour therapy for co-occurring alcohol misuse and depression differ for participants with symptoms of posttraumatic stress? *J Ment Health*. 2019 03 12:1-8. [Medline](#)

Guidelines and Recommendations

13. Mazza D, Brijnath B, Chakraborty SP, Guideline Development Group. *Clinical guideline for the diagnosis and management of work-related mental health conditions in general practice*. Melbourne (Australia): Monash University; 2019: https://www.monash.edu/_data/assets/pdf_file/0004/1696702/Work-Related-Mental-Health-Clinical-Guideline-for-GPs_Digital_Update-2019.09.10.pdf. Accessed 2021 Mar 23.
See: Clinical guideline for the diagnosis and management of work-related mental health conditions in general practice: GP summary - What strategies are effective at managing comorbid mental health conditions and substance misuse and addictive disorders? (p.7)

14. Korownyk C, Perry D, Ton J, et al. PEER Simplified Guideline: Managing Opioid Use Disorder in Primary Care. *Can Fam Physician*. 2019 05;65:321-330. <https://www.cfp.ca/content/cfp/65/5/321.full.pdf>. Accessed 2021 Mar 23. [Medline](#)
See: Box 1. Recommendations summary - Comorbidities (p.322)
15. Guidelines for the management of physical health conditions in adults with severe mental disorders. Geneva (Switzerland): World Health Organization (WHO); 2018: <https://apps.who.int/iris/bitstream/handle/10665/275718/9789241550383-eng.pdf?ua=1>. Accessed 2021 Mar 23.
See: 3.3 Substance Use Disorders (p.24-26)
16. Gimeno C, Dorado ML, Roncero C, et al. Treatment of Comorbid Alcohol Dependence and Anxiety Disorder: Review of the Scientific Evidence and Recommendations for Treatment. *Front Psychiatr*. 2017 09 22;8:173. [Medline](#)

Appendix 1: References of Potential Interest

Previous CADTH Reports

17. Virtual Health Care for Adults with Concurrent Disorders: Clinical Effectiveness and Guidelines. (*CADTH rapid response report: reference list*). Ottawa (ON): CADTH; 2020 09. <https://cadth.ca/virtual-health-care-adults-concurrent-disorders-clinical-effectiveness-and-guidelines>. Accessed 2021 Mar 23.
18. Concurrent treatment for substance use disorder and trauma-related comorbidities: a review of clinical effectiveness and guidelines. (*CADTH rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2017. <https://cadth.ca/sites/default/files/pdf/htis/2017/RC0911-SustanceUseDisorder%20Final.pdf>. Accessed 2021 Mar 23.

Systematic Reviews and Meta-analyses

Unclear Comparator

19. Holmes NA, van Agteren JE, Dorstyn DS. A systematic review of technology-assisted interventions for co-morbid depression and substance use. *J Telemed Telecare*. 2019 04;25(3):131-141. [Medline](#)

Randomized Controlled Trials

Mixed Intervention – Pharmacotherapy and/or Psychosocial Therapy

20. Zang Y, Yu J, Chazin D, Asnaani A, Zandberg LJ, Foa EB. Changes in coping behavior in a randomized controlled trial of concurrent treatment for PTSD and alcohol dependence. *Behav Res Ther*. 2017 03;90:9-15. [Medline](#)

Alternative Comparator – Comparison Between Two Integrated Treatments

21. Capone C, Tripp JC, Trim RS, Davis BC, Haller M, Norman SB. Comparing Exposure- and Coping Skills-Based Treatments on Trauma-Related Guilt in Veterans With Co-Occurring Alcohol Use and Posttraumatic Stress Disorders. *J Trauma Stress*. 2020 08;33(4):603-609. [Medline](#)
22. Tripp JC, Angkaw A, Schnurr PP, et al. Residual Symptoms of Posttraumatic Stress Disorder and Alcohol use disorder Following Integrated Exposure Treatment Versus Coping Skills Treatment. *J Trauma Stress*. 2020 08;33(4):477-487. [Medline](#)
23. Tripp JC, Haller M, Trim RS, et al. Does exposure exacerbate symptoms in veterans with PTSD and alcohol use disorder? *Psychol Trauma*. 2020 07 16. [Medline](#)
24. Norman SB, Trim R, Haller M, et al. Efficacy of Integrated Exposure Therapy vs Integrated Coping Skills Therapy for Comorbid Posttraumatic Stress Disorder and Alcohol use disorder: A Randomized Clinical Trial. *JAMA Psychiatry*. 2019 08 01;76(8):791-799. [Medline](#)

Review Articles

25. Kondev V, Winters N, Patel S. Cannabis use and posttraumatic stress disorder comorbidity: Epidemiology, biology and the potential for novel treatment approaches. *Int Rev Neurobiol*. 2021;157:143-193. [Medline](#)
26. Lees R, Hines LA, D'Souza DC, et al. Psychosocial and pharmacological treatments for cannabis use disorder and mental health comorbidities: a narrative review. *Psychol Med*. 2021 02;51(3):353-364. [Medline](#)
27. Luteijn I, VanDerNagel JEL, van Duijvenbode N, de Haan HA, Poelen EAP, Didden R. Post-traumatic stress disorder and substance use disorder in individuals with mild intellectual disability or borderline intellectual functioning: A review of treatment studies. *Res Dev Disabil*. 2020 10;105:103753. [Medline](#)
28. Bailey K, Trevillion K, Gilchrist G. What works for whom and why: A narrative systematic review of interventions for reducing post-traumatic stress disorder and problematic substance use among women with experiences of interpersonal violence. *J Subst Abuse Treat*. 2019 04;99:88-103. [Medline](#)
29. Iqbal MN, Levin CJ, Levin FR. Treatment for Substance use Disorder With Co-Occurring Mental Illness. *Focus (Am Psychiatr Publ)*. 2019 04;17(2):88-97. [Medline](#)
30. McKee SA, Hilton NZ. Co-Occurring Substance use, PTSD, and IPV Victimization: Implications for Female Offender Services. *Trauma Violence Abuse*. 2019 07;20(3):303-314. [Medline](#)
31. Murthy P, Mahadevan J, Chand PK. Treatment of substance use disorders with co-occurring severe mental health disorders. *Curr Opin Psychiatry*. 2019 07;32(4):293-299. [Medline](#)
32. Flanagan JC, Jones JL, Jarnecke AM, Back SE. Behavioral Treatments for Alcohol use disorder and Post-traumatic stress disorder. *Alcohol Res*. 2018;39(2):181-192. [Medline](#)