

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Virtual Health Care for Adults with Concurrent Disorders: Clinical Effectiveness and Guidelines

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Research Questions

1. What is the clinical effectiveness of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition?
2. What are the evidence-based guidelines regarding the use of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition?

Key Findings

One systematic review and two randomized controlled trials were identified regarding the clinical effectiveness of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition. No relevant evidence-based guidelines were identified regarding the use of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, PsycInfo, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were virtual health care, substance use, and other mental health conditions. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, network meta-analyses, guidelines, randomized controlled trials, or controlled clinical trials. The search was also limited to English language documents published between January 1, 2015 and September 21, 2020. Internet links were provided, where available.

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

Population	Adults diagnosed with substance use disorder and a concurrent mental health condition (i.e., concurrent disorder)
Intervention	Virtual health care modalities (i.e., videoconferencing, digital messaging, online programming, apps, wearable and sensor technologies, artificial intelligence, virtual reality) used for virtual delivery of mental health services (e.g., online therapy, peer support, group treatment and support, online skill building)
Comparator	Q1: In-person delivery of mental health services (e.g., in-person therapy, peer support, group treatment and support, skill building) Q2: Not applicable

Outcomes	<p>Q1: Severity of concurrent disorder (e.g., substance use, symptom severity, level of functioning, quality of life, hospitalization, medication/treatment adherence)</p> <p>Q2: Guidelines and recommendations regarding the use of virtual health care modalities used for virtual delivery of mental health services (e.g., recommended virtual health care interventions)</p>
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, evidence-based guidelines

Results

One systematic review¹ and two randomized controlled trials^{2,3} were identified regarding the clinical effectiveness of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition. No relevant health technology assessments were identified. No relevant evidence-based guidelines were identified regarding the use of virtual health care for adults diagnosed with substance use disorder and a concurrent mental health condition.

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

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-Analyses

Computer-Based Intervention – Unclear Level of Care

1. Dugdale S, Elison-Davies S, Semper H, Ward J, Davies G. Are computer-based treatment programs effective at reducing symptoms of substance misuse and mental health difficulties within adults? A systematic review. *J Dual Diagn*. 2019 Oct-Dec;15(4):291-311.
[PubMed: PM31476983](#)

Randomized Controlled Trials

Web-Based Intervention – Non-Primary Care Setting

2. Tiburcio M, Lara MA, Martinez N, Fernandez M, Aguilar A. Web-based intervention to reduce substance abuse and depression: a three arm randomized trial in Mexico. *Subst Use Misuse*. 2018 Nov 10;53(13):2220-2231.
[PubMed: PM29768070](#)

Telehealth Program – Unclear Level of Care

3. Battaglia C, Peterson J, Whitfield E, et al. Integrating motivational interviewing into a home telehealth program for veterans with posttraumatic stress disorder who smoke: a randomized controlled trial. *J Clin Psychol*. 2016 Mar;72(3):194-206.
[PubMed: PM26783736](#)

Guidelines and Recommendations

No literature identified.

Appendix — Further Information

Previous CADTH Reports

4. Telehealth and mobile services for substance use disorder: clinical effectiveness, cost-effectiveness and guidelines. (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2020: <https://cadth.ca/telehealth-and-mobile-services-substance-use-disorder-clinical-effectiveness-cost-effectiveness-and>. Accessed 2020 Sep 24.
5. e-Therapy interventions for the treatments of substance use disorders and other addictions: a review of clinical effectiveness. (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2018 <https://cadth.ca/e-therapy-interventions-treatments-substance-use-disorders-and-other-addictions-review-clinical>. Accessed 2020 Sep 24.

Systematic Reviews and Meta-Analyses

Mixed Population

Mobile Telephone-Delivered Intervention

6. Getty CA, Morande A, Lynskey M, Weaver T, Metrebian N. Mobile telephone-delivered contingency management interventions promoting behaviour change in individuals with substance use disorders: a meta-analysis. *Addiction*. 2019 Nov;114(11):1915-1925. [PubMed: PM31265747](#)

Population Unclear – Substance Use Disorder Not Specified

Technology-Based Psychological Interventions

7. Tatar O, Bastien G, Abdel-Baki A, Huynh C, Jutras-Aswad D. A systematic review of technology-based psychotherapeutic interventions for decreasing cannabis use in patients with psychosis. *Psychiatry Res*. 2020 Jun;288:112940. [PubMed: PM32344316](#)

Comparator Unclear

Multiple Technological Interventions

8. 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 Apr;25(3):131-141. [PubMed: PM29310532](#)
9. Gilmore AK, Wilson SM, Skopp NA, Osenbach JE, Reger G. A systematic review of technology-based interventions for co-occurring substance use and trauma symptoms. *J Telemed Telecare*. 2017 Sep;23(8):701-709. [PubMed: PM27534823](#)

Randomized Controlled Trials

Mixed Intervention

Telephone Monitoring

10. Timko C, Harris AH, Jannausch M, Ilgen M. Randomized controlled trial of telephone monitoring with psychiatry inpatients with co-occurring substance use and mental health disorders. *Drug Alcohol Depend.* 2019 Jan;194:230-237.
[PubMed: PM30466040](#)

Web-Based Intervention – Primary Care Setting

11. Acosta MC, Possemato K, Maisto SA, et al. Web-delivered CBT reduces heavy drinking in OEF-OIF veterans in primary care with symptomatic substance use and PTSD. *Behav Ther.* 2017 Mar;48(2):262-276.
[PubMed: PM28270335](#)

Alternative Outcome

Web-Based Intervention

12. Hammond AS, Antoine DG, Stitzer ML, Strain EC. A randomized and controlled acceptability trial of an internet-based therapy among inpatients with co-occurring substance use and other psychiatric disorders. *J Dual Diagn.* 2020 Jul 23:1-8.
[PubMed: PM32701419](#)

Guidelines and Recommendations – Concurrent Disorder Not Specified

13. Telemedicine support for addiction services: national rapid guidance. Montreal (QC): Canadian Research Initiative in Substance Misuse (CRISM); 2020: <https://crism.ca/wp-content/uploads/2020/05/CRISM-National-Rapid-Guidance-Telemedicine-V1.pdf>. Accessed 2020 Sep 24.
See: 9.1 Counselling for Patients, page 28

Review Articles

14. Ferreri F, Bourla A, Mouchabac S, Karila L. e-Addictology: an overview of new technologies for assessing and intervening in addictive behaviors. *Front Psychiatr.* 2018;9:51.
[PubMed: PM29545756](#)
15. Sugarman DE, Campbell ANC, Iles BR, Greenfield SF. Technology-based interventions for substance use and comorbid disorders: an examination of the emerging literature. *Harv Rev Psychiatry.* 2017 May/Jun;25(3):123-134.
[PubMed: PM28475504](#)

Additional Reference

16. Evans C, Bullock HL, Wilson MG, Lavis JN. Rapid synthesis: The effectiveness of virtual care for adults with mental health and/or addictions issues. Hamilton (ON): McMaster Health Forum; 2020: <https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/assessing-the-effectiveness-of-virtual-care-for-adults-with-mental-health-and-or-addictions-issues.pdf>. Accessed 2020 Sep 24.