INBRIEF | Summarizing the Evidence

# Internet-Based Cognitive Behavioural Therapy for Post-Traumatic Stress Disorder

## Key Messages

- Internet-based cognitive behavioural therapy (iCBT) may have a role in the treatment of adults with post-traumatic stress disorder (PTSD). However at present, relevant evidence is insufficient and of low quality. Therefore, evidence of higher quality will be needed to inform future implementation and policy decisions.
- If iCBT is to be implemented as a treatment for adults with PTSD, the following considerations are recommended:
  - Assess whether iCBT is appropriate for each patient (through diagnosis and referral), with consideration given to patient symptom severity, type of trauma, patient culture and context, and iCBT program safety and accessibility.
  - Choose therapist-guided iCBT.
  - Use iCBT as one component of a stepped-care model or in conjunction with other therapies, as appropriate.
  - Ensure that personal health information is appropriately safeguarded and securely managed in accordance with the privacy regulations in the jurisdiction where the care is being provided.

## Context

Cognitive behavioural therapy (CBT) is one of the most frequently used evidence-based psychotherapies for treating post-traumatic stress disorder (PTSD). CBT for PTSD consists of psychoeducation on common reactions to trauma, anxiety management strategies (e.g., breathing relaxation techniques), controlled exposure to trauma-associated memories, and cognitive restructuring of unhelpful thoughts and perceptions about the traumatic experience.

CBT is traditionally delivered through face-to-face sessions between the individual and a therapist. Internet-based delivery of CBT is increasingly being considered or implemented as a way to improve access to treatment and services for mental health conditions, including PTSD.

## Technology

Internet-delivered CBT (iCBT) involves the delivery of CBT via an online platform and requires the use of a computer, smartphone, or tablet, with an Internet connection. iCBT programs are typically comprised of a series of modules that include readings, activities, and messaging. iCBT can be provided with or without the support of a therapist (or other practitioner). Access options, program structure, level of support, and cost vary between available programs.

## Issue

iCBT may be viewed as an alternative that may help address barriers to accessing psychological treatment for PTSD, including perceived stigma, financial costs, limited geographic availability (e.g., in rural or remote areas), and long wait times. However, several issues related to iCBT, such as limited or no therapist support or the varying quality of existing programs, have led to questions about its use for the treatment of PTSD. In this context, there is broad interest in Canada in understanding the appropriate use of iCBT in the care of patients with PTSD, and a need to systematically evaluate relevant evidence to guide policy and implementation decisions.

## Methods

CADTH conducted a Health Technology Assessment (HTA) that examined the clinical effectiveness and safety, cost-effectiveness, patients' and caregivers' perspectives and experiences, ethical issues, and implementation considerations related to the use of iCBT for the treatment of PTSD. The CADTH Health Technology Expert Review Panel reviewed and discussed the evidence and developed recommendations on the appropriate use of iCBT in the context of caring for patients with PTSD in Canada.

## Results

Overall, the findings of the clinical review suggest that iCBT may be more effective than wait list for improving the severity of PTSD

symptoms, depressive symptoms, anxiety symptoms, and quality of life for adult patients with PTSD. Despite these statistically significant findings, it is uncertain whether the reported improvement in symptoms is clinically meaningful. Evidence on the safety and adverse events related to iCBT was not available in most of the included studies; however, there was evidence that participants treated with iCBT may be at increased risk of dropout compared to those on wait list (low-quality evidence). The clinical effectiveness of iCBT compared with face-to-face psychotherapy is not known (no evidence was identified).

The results of the economic evaluation suggest that iCBT was associated with lower total costs and greater quality-adjusted life years (QALYs) compared with no additional treatment (i.e., wait list, usual care, or delayed treatment control group).The results were primarily driven by the cost of treatment and the extrapolation of the clinical impact of iCBT over a lifetime. Given the previously noted issues with the clinical evidence, the quality of the clinical data informing the economic model was low. The uncertainty with the clinical evidence should be considered when interpreting the economic analysis. Because of a lack of clinical data, it was not possible to conduct analyses of iCBT compared with the current standard of care (including face-to-face CBT). As a result, the cost-effectiveness of iCBT in comparison with other psychotherapy interventions remains uncertain. Similarly, identification of subgroups for which iCBT may be more or less cost-effective, as well as the optimal position of iCBT in the PTSD care pathway, also remain unknown.

A review of evidence describing the perspectives and experiences with psychotherapy for people living with a diagnosis of PTSD, and those of their families and care providers, was completed. This evidence generally focused on the importance of building strong therapeutic relationships, readiness and motivation in preparing for and successfully completing psychotherapies for PTSD, and the freedom to play a collaborative role in one's treatment decisions. Ensuring that iCBT programs address these concepts would likely be beneficial to the treatment. Overall, a one-size-fits-all approach to iCBT for PTSD would be inappropriate and, therefore, it seems less likely that unguided iCBT for PTSD would be considered as useful for patients.

An ethical analysis was conducted to identify and reflect on key ethical issues when considering the use of iCBT for PTSD. In addition to ethical issues that might arise in the context of Internet-delivered mental health therapies (e.g., limits to privacy and confidentiality, challenges to the informed consent process, and an assortment of professional and legal issues related to professional competence and liability), ethical issues specifically relevant to the provision, development, and use of iCBT for PTSD in Canada include:

- the extent to which trauma-informed care (and associated ethical commitments to prioritize client safety and prevent retraumatization) can be offered in the context of iCBT, particularly where iCBT is not therapist-supported
- the consideration and proper balancing of the justice-enhancing (e.g., iCBT may enhance access to mental health services) and justice-diminishing features of iCBT(e.g., increased access may not extend to those less privileged)
- the prospect of establishing a trusting alliance so that iCBT providers can fulfill their ethical obligations.

For jurisdictions interested in implementing iCBT for PTSD, considerations include the likely need for iCBT provision oversight by a regulatory or licensing body, determining whether there is research supporting the use of iCBT to fill the specific gaps iCBT is meant to fill in PTSD care, determining which professionals are appropriate for providing care with iCBT, and how iCBT fits within current mental health funding and provision structures across jurisdictions. Individual patient treatment goals or values are important to consider when deciding on the implementation of particular iCBT programs.



**ABOUT CADTH**

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