

# What is the effectiveness of Cognitive Behavioural Therapy (CBT) for mental illness and substance use problems?

## What you need to know

- Cognitive behavioural therapy (CBT) is an effective form of treatment that challenges unhelpful thinking and behaviour patterns to reduce distress and improve the ability to cope.
- CBT is most effective for the treatment of anxiety and moderate depression, though evidence also supports the use of CBT to treat bulimia nervosa, borderline personality disorder, anger control issues, substance use issues such as nicotine or cannabis dependence, and somatoform disorders (where physical symptoms are inconsistent with or can't be fully explained by an underlying general medical or neurological condition) . CBT may be helpful for bipolar disorder and schizophrenia when added to the usual medical treatments.
- Online delivery of CBT is a promising approach and appears to be as effective as in-person therapy.

## What is the background context?

People experiencing mental health and substance use problems need access to evidence-based treatment options. In Canada, an estimated one in five people, or over 6.7 million, are affected by mental health or substance use problems. By 2041, it is projected that this number will increase to 8.9 million.<sup>1</sup> In 2011, the most prevalent mental health problems in Canada were mood and anxiety disorders, with approximately four million Canadians living with one.<sup>1</sup>

There are a number of possible psychotherapeutic or pharmacologic approaches to treating mental health and substance use problems. One of the most researched is cognitive behavioural therapy (CBT), which is a type of psychotherapy delivered by a trained health professional (e.g. a psychologist, or physician) that challenges unhelpful thinking and behavior patterns in order to reduce distress and improve coping mechanisms.<sup>2</sup> CBT is structured and time-limited, focuses on resolving problems, and teaches the individual to question and examine thoughts, attitudes, and beliefs as they arise in certain situations.<sup>3</sup>

Thinking patterns can include beliefs or schemas about oneself or the world that result in quick, automatic thoughts leading to emotional distress and problematic behaviours.<sup>4</sup> This type of therapy was originally developed for treatment of depression and has since been applied to a wide range of disorders in various settings.<sup>5</sup>

There is strong evidence in favour of using CBT with more than 250 meta-analyses conducted in the last few decades.<sup>6</sup> This evidence brief highlights the latest, relevant research literature on the effectiveness of CBT to address mental health and substance use problems. While the majority of this literature focuses on the general adult population, some evidence is specific to children, adolescents, and the elderly.

## What did we find?

### CBT for anxiety

A wealth of literature supports the efficacy of CBT for the treatment of anxiety.<sup>2,6</sup> CBT is more effective than remaining on a waiting list or receiving no treatment for social anxiety disorder, generalized anxiety disorder, and post-traumatic stress disorder (PTSD).<sup>4</sup> CBT is as effective as other treatments for specific phobias, generalized anxiety, and PTSD. The National Institute for Health and Care Excellence (NICE) in the United Kingdom recommends CBT as the first approach for the treatment of anxiety disorders.<sup>7</sup> The Substance Abuse and Mental Health Services Administration (SAMHSA) suggests CBT as an effective treatment option for anxiety disorders.<sup>8</sup>

### CBT for depression

The evidence is strong for the use of CBT to treat moderate depression, but not as strong for severe depression and bipolar disorder. It performs better for moderate depression compared to remaining on a waiting list or receiving no treatment, and as well as or better than other behavioural or pharmacological therapies.<sup>4</sup> The evidence is mixed for severe depression, but recent studies suggest that CBT is just as effective as medication for severe depression.<sup>6</sup> It may prevent relapses in bipolar disorder, but it may have limited effectiveness on its own and is best when combined with medication.<sup>2,4,6</sup> Both NICE guidelines and SAMHSA recommend CBT in the treatment of depression.<sup>7,8</sup>

### CBT for other mental health or substance use problems

CBT may be effective for treating other disorders, such as somatoform disorders, bulimia nervosa, borderline personality disorder, anger control issues, and substance use issues such as nicotine or cannabis dependence.

# Evidence Brief: CBT

Similar to bipolar disorder, CBT is beneficial for schizophrenia when combined with the usual medical treatments.<sup>4,6</sup>

Although not as much research has been done in the area of substance use, the evidence is mixed on the effectiveness of CBT compared to other treatments. Several studies suggest CBT may not be better than pharmacological treatments for alcohol and opioid dependence.<sup>4,6</sup> Yet a review that combined data from multiple studies found that compared to general drug counselling or treatment-as-usual, CBT was effective for cocaine, opioids, and minimally for poly-substance dependence.<sup>9</sup> More research needs to be done in this area to determine what the most effective combination of treatments might be.

## Specific populations

Some research has examined the use of CBT with children and adolescents. CBT is an effective treatment for anxiety in these age groups, and slightly less effective for depression.<sup>2,4</sup> Research on its use for older individuals with depression shows CBT is better than being on a waiting list and most studies found it was as effective as, and in some cases better than, other therapies.<sup>4</sup>

## Variations in the delivery of CBT

While CBT is effective for a variety of conditions, lack of access is a problem in the real-world as it may only be offered in large cities, and cost can prove to be a barrier. One approach that addresses limited access to CBT is to offer sessions online using video conferencing technology. Evidence from a systematic review of more than 100 clinical trials found that internet-based CBT was effective to treat depression, anxiety, eating disorders, cannabis use, and problem gambling. Of the 12 studies in this review that could draw comparisons between internet-based CBT and in-person CBT, there was no difference in effectiveness, suggesting internet-based approaches could be viable.<sup>10</sup>

## What are the limitations of this evidence brief?

This document is intended to provide a high-level snapshot of the evidence on the effectiveness of CBT and is not a comprehensive review of the literature. It can be challenging to draw conclusions from studies that look at CBT in a research environment. For example, having more than one mental health or substance use problem is common in the real-world, but it may exclude an individual from being accepted into a study.<sup>4</sup> There is also no clear answer yet as to the exact mechanisms behind CBT's effectiveness and precisely how changes in cognition lead to changes in symptoms.<sup>6</sup>

## What are the conclusions?

There is extensive research on the effectiveness of CBT to treat a wide array of mental health and substance use problems. The strongest evidence is for treatment of anxiety and depression (in particular moderate cases), but there is also evidence for its effective use for other disorders and concerns.<sup>2,4,6</sup> Given the high prevalence of mental health and substance use problems in Canada, access to evidence-based treatment is an important step to recovery. Focusing on ways to increase access and tailor treatment to be most effective for each individual are critical areas of future research.

## References

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