

Psychedelic-Assisted Psychotherapy: Research Evidence Summary

Background

Many Numinus clients are interested in reviewing published studies about the use of psychedelics in the treatment of mental health conditions. This document is a brief summary of select research articles on this topic.

Existing Mental Health Treatments

Traditionally, medications that are taken daily (like antidepressants) are used for treating a range of mental health conditions, such as depression and anxiety. Although helpful for some, the efficacy of many antidepressants is debated among scientists, and they may have a number of side effects that can continue even after the treatment has been stopped (1-8). As a result, many individuals stop using these medications before seeing results, and even those who continue taking them often need to keep doing so even after their symptoms improve (6, 9, 10).

Placebos often achieve 50-85% as much of an effect as antidepressants and if an antidepressant is introduced as an "active placebo," its efficacy for treating anxiety can be greatly reduced, which shows that expectations (what we call "set") have a very important role in treatment (11, 12). Antidepressants often do not help those with medical issues and can worsen outcomes for those with addictions (13-15).

Psychedelics

Significant amounts of research were carried out during the mid 1900s on psychedelics for mental health conditions. This research included more than 1,000 scientific publications involving more than 40,000 patients, and many important figures described psychedelics as offering new frontiers for mental health and neuroscience (16). Psychedelics faced a political backlash in the mid-late 1960s, which led to research unfortunately being halted until relatively recently (17).

Researchers believe that psychedelics make users' brains less constrained and allow more intercommunication to occur within them (18). Psychedelic-assisted psychotherapy combines use of a psychedelic medicine with psychotherapy. Clinical results have shown safety and efficacy, even for conditions that are traditionally resistant to treatment (19, 20). Though psychedelic-assisted psychotherapy's history in Western biomedicine only extends back to 1947, Indigenous Peoples have stewarded sacred psychedelic plant medicines in healing ceremonies and cultural practices since time immemorial (21).

Psychedelic-Assisted Psychotherapy

Many conventional psychiatric medications seek to help individuals by treating symptoms and may not address the underlying causes of the mental health condition (19), for example, treating symptoms of anxiety with a benzodiazepine or antidepressant rather than trying to identify and resolve underlying causes of anxiety

symptoms themselves. Psychedelic-assisted psychotherapy aims to identify and resolve root causes of mental health conditions, working by creating a mind-opening effect through the psychedelics that allows access to deeper levels of insight and healing. Although more research is required, existing evidence suggests that combining a psychedelic experience with psychotherapy can lead to lasting changes and benefits (19).

Despite psychedelic-assisted psychotherapy being a short-term intervention, research has shown its positive results to generally persist and to still be present after the completion of research studies (22). Current evidence suggests that psychedelic-assisted psychotherapy brings about neuroplasticity – enabling the brain to change and adapt more easily and potentially opening it to healing and growth (23). This experience is also tied to the “set and setting” of the therapy. “Set” is the mental state when entering the psychedelic experience, while “setting” refers to the physical environment in which the therapy takes place. At Numinus, both set and setting are managed to ensure that you get the most out of your healing experience.

The risk of developing addiction to psychedelics is low as these substances are generally not addictive, even when used outside of a treatment setting. Several forms of psychedelic-assisted psychotherapy are, in fact, useful for treating addictions. Reports of injuries or deaths from psychedelics are rare and associated with recreational use, typically occurring in dangerous and uncontrolled environments where the purity and dose of the substances used may not be unknown (24).

Although psychedelic-assisted psychotherapy shows great promise, it is a unique form of treatment. Certain psychedelic medicines, like psilocybin, have been used by Indigenous Peoples since time immemorial, whereas other promising medicines, like MDMA, have been difficult to research as a result of criminalization and stigma. While no treatment can be guaranteed to benefit every individual, the existing evidence base is large and constantly growing, and shows that this treatment approach may provide benefits where existing treatments like counselling or antidepressants have not done enough. Your care team at Numinus happy to answer any questions should you wish to learn more.

Types of Psychedelic-Assisted Psychotherapy

At Numinus, our care team currently provides ketamine-assisted psychotherapy for the treatment of depression, addictive disorders, post-traumatic stress disorder (PTSD), and anxiety. Of the medicines used at Numinus, ketamine is the only one that can be obtained without special government permission, and is used for most of our clients. We also provide MDMA-assisted psychotherapy for the treatment of PTSD and psilocybin-assisted psychotherapy for the treatment of depression and addictive disorders, as these are mental health conditions most supported by research. Unlike ketamine, MDMA and psilocybin can only be obtained through Health Canada’s Special Access Program. Your Numinus care team will work with you to ensure that you are directed towards a treatment that best suits your current needs and mental health condition.

Ketamine

Ketamine is a dissociative anesthetic with psychedelic properties, meaning it can affect perception and sensations in the body and mind. Ketamine is a legal medication in Canada and has been used for over 50 years and is known to be safe when administered by appropriately trained healthcare practitioners. Over several decades, lower doses of ketamine have been used as an ‘off-label’ medication for mental health treatments. This means that it is used for treating conditions beyond what it has been approved for by Health Canada. In this way, it has been used for treating a range of mental health conditions, including depression, anxiety, post-traumatic stress disorder (PTSD), addictive disorders, and other mental health conditions. One retrospective analysis found that ketamine treatment produced a response in about 50% of participants with depression, while about 30% met criteria for remission, meaning they no longer were diagnosable with depression (25).

Ketamine has been shown to have beneficial effects for a range of mental health conditions on its own (26), though these improvements are often short lived. That being said, research shows that these benefits can be extended and last longer when ketamine is combined with psychotherapy (23). Ketamine can have significant

antidepressant effects that are noticeable within hours of administering the medicine, and it may also diminish the risk of suicide (23, 26). One study, for example, saw 71% of the study population respond to ketamine treatment, with 29% responding so strongly that they met criteria for remission from their treatment-resistant depression (27).

Ketamine has shown to help with addictions by improving cravings and motivation to quit using, as well as improving abstinence rates for many substance use addictions (28). One study, for example, reported 48.2% of cocaine users treated with ketamine and psychotherapy remained abstinent at the end of the trial, while only 10.7% of those receiving psychotherapy with a placebo achieved this same result (29). In this same study, the group given ketamine and psychotherapy was 53% less likely to relapse, and their craving scores were 58.1% lower than the placebo group (29). In looking to alcohol and drinking, another study, for example, found that those in a group given ketamine and psychotherapy were significantly less likely to use alcohol (30).

For PTSD, one study, for example, showed that 67% of participants who received ketamine experienced significant improvements, while only 20% in a group given midazolam saw such results (31).

MDMA

MDMA is especially known for its ability to create emotional openness and interpersonal closeness, increase feelings of compassion for oneself and others, and reduce feelings of fear and anxiety (32). MDMA is not a medicine found in nature, and was only synthesized in the 1900s. Despite its relative novelty, MDMA has been extensively researched.

Research to date has demonstrated the safety, efficacy, and long-lasting positive outcomes of MDMA-assisted psychotherapy, particularly in the treatment of post-traumatic stress disorder (PTSD) (33). One study, for example, showed 82% of participants experienced significant improvement in PTSD symptoms after treatment (34). Another study recorded that 67% of participants no longer met diagnostic criteria for PTSD after MDMA-assisted psychotherapy (34). Research has also displayed that MDMA-assisted psychotherapy is more cost-effective than other existing treatments for chronic, treatment-resistant PTSD (35, 36) and that it is a substantial improvement over existing antidepressant treatment options (32).

Psilocybin

One of the best-known psychedelic compounds, psilocybin has a long history of traditional use. It exists in several species of mushrooms that have long been used by Indigenous healers in parts of the Americas. Psilocybin can produce profound changes in our senses, as well as affecting emotions, thoughts, and sense of self. Similarly, psilocybin is known to increase the ability to have mystical experiences and emotional breakthroughs for many, often with a very personalized experience meeting the spiritual and psychological needs of each individual (37).

Research has shown psilocybin to be effective in treating a range of mental health conditions. One study, for example, reported that the majority of participants attributed lasting positive life changes to their experience with psilocybin-assisted psychotherapy (38). For depression, one study displayed that 71% of participants had a significant response after psilocybin-assisted psychotherapy, with over 50% no longer meeting diagnostic criteria for depression (39). Psilocybin has been shown to have an "extremely significant" antidepressant effect, especially at higher doses (40).

Research has been carried out (and continues) on the use of psilocybin-assisted psychotherapy for treating a range of different forms of substance use conditions, including nicotine, alcohol, methamphetamine, cocaine, and opioids, as well as for depression and psychological components related to severe/terminal illness (41).

Suggested Readings

- [Efficacy of 3,4-methylenedioxymethamphetamine \(MDMA\)-assisted psychotherapy for posttraumatic stress disorder: A systematic review and meta-analysis](#)
- [Integrating psychotherapy and psychopharmacology: psychedelic-assisted psychotherapy and other combined treatments](#)
- [Efficacy of Ketamine in the Treatment of Substance Use Disorders: A Systematic Review](#)
- [Dose effect of psilocybin on primary and secondary depression: a preliminary systematic review and meta-analysis](#)
- [A Meta-Analysis of Placebo-Controlled Trials of Psychedelic-Assisted Therapy](#)
- [Ketamine for the treatment of mental health and substance use disorders: comprehensive systematic review](#)
- [Decreases in Suicidality Following Psychedelic Therapy: A Meta-Analysis of Individual Patient Data Across Clinical Trials](#)

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