

**Psychedelic-Assisted Therapy: An Introduction to Clinical Practice & Theoretical
Concepts**

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Abstract

Psychedelic-assisted therapy is an emerging therapeutic modality within the healthcare system. The use of psychedelics for therapeutic purposes, spiritual exploration, and personal growth has garnered increased attention in the past few decades. The evidence-based research through clinical trials conducted by reputable clinicians and healthcare institutions has demonstrated the legitimacy of psychedelics for treating mental health conditions, and for being healing tools to increase an individual's quality of life. As a result, there has been a significant rise in curiosity from the general public regarding psychedelic-assisted therapy as a treatment modality. This has led to a demand for clinicians to be thoroughly and competently educated as to how psychedelics can be utilized within clinical, therapeutic environments for healing purposes. Drawing from the research and literature reviews, this paper intends to provide an in-depth guide for clinicians who are interested in learning about this therapeutic modality. It will also discuss the core foundational therapeutic philosophies, three theoretical frameworks and interventions which are utilized in clinical research and practice, a summary of psychedelics in Western culture and healthcare, and key ethical considerations within this healing modality.

Key Terms: LSD, MDMA, psychedelic-assisted therapy, psychedelics psilocybin

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Dedication

This capstone is dedicated to my late mother, Suman Kashyap. So much of the person I am today, the life path I traverse personally and professionally, and the values I hold close to my heart is influenced by you. You are with me in spirit every moment of every day, and for that I am thankful.

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Chapter 1: Psychedelic-Assisted Therapy

In the past few decades, there has been a growing amount of global interest in the emerging field of psychedelic-assisted therapy, a healing modality which notably involves the administration of consciousness-altering substances to achieve therapeutic goals. The US Food and Drug Administration (FDA) recognized the potential of psychedelic-assisted therapy as in the past decade they granted breakthrough therapy status for Psilocybin for Treatment-Resistant Depression (TRD), and for MDMA (3,4-methylenedioxymethamphetamine) in the treatment of Post-Traumatic Stress Disorder (PTSD) (Heal et al., 2023). By utilizing the transformative effects of consciousness-altering substances in a clinical, therapeutic environment, psychedelic-assisted therapy has the potential to revolutionize mental health treatment by providing novel avenues for healing and addressing mental health conditions. There has been a global “rise to a reconsideration of the therapeutic potential of these compounds in recent years” through the comprehensive process of clinical trials and evidence-based research that has been approved by government, medical, and federal institutions (Yehuda & Lehrner, 2023, para. 1). The purpose of this paper is to not only demonstrate the literature evidence of the validity of this emerging therapeutic modality for mental health treatment, but also provide an introductory guide for healthcare practitioners (nurses, physicians, counsellors) who are interested in this emerging field. Through this project, I ultimately hope to reduce the stigma surrounding psychedelics for those who perceive them as harmful, dangerous, addictive, and/or holding no therapeutic or medical value, and contribute to a body of literature that supports the widespread legalization and regulation of psychedelic-assisted therapy for mental health treatment.

Context of the Topic

Over the past two decades, there has been a widespread consensus that the world is

currently in “the midst of a Psychedelic Renaissance” wherein psychedelics have been demonstrated through evidence-based research and clinical trials to be an effective treatment modality for a wide range of mental health ailments or conditions (Sessa, 2018, p. 551). Psychedelic-assisted therapy has gained interest within the global healthcare system and culture at large as “renewed investigations are taking place on the use of psychedelic substances for treating illnesses such as addiction, depression, anxiety and post-traumatic stress disorder (PTSD)” (Tupper et al., 2015, p. 1). In 2021, a non-profit organization MAPS (Multi-Interdisciplinary Association for Psychedelic Research) released the results from their Phase 3 Trial of MDMA-Assisted Therapy for PTSD and found that “67% of participants in the MDMA-assisted therapy group no longer had PTSD after 3 sessions” (MAPS, 2015, para. 4). A recent research study published in 2022 by Johns Hopkins University found that Psilocybin-Assisted treatment for major depressive disorder “produced large decreases in depression, and that depression severity remained low one, three, six and 12 months after treatment” (Johns Hopkins Medicine Newsroom, 2022, para. 7). In a randomized trial, Zarate et al. (2006) demonstrated that a single intravenous dose of ketamine could produce rapid and significant reductions in depressive symptoms in individuals with treatment-resistant major depression, and these effects occurred within hours and lasted for up to a week. Currently, the practice of Ketamine-Assisted Therapy is legal and offered in a regulated manner in Canada, The United States of America, the UK, and numerous other countries and regions. Through a process called the Special Access Program (SAP) within Canada, terminally ill and treatment-resistant patients can request access to and, if approved by the health minister, receive MDMA or Psilocybin-Assisted Therapy which would be prescribed by a licensed physician and administered by a trained psychedelic therapist within a regulated, clinical healthcare setting (Mocanu et al., 2022). Overall, there has been

significant shifts culturally, medically, and politically regarding psychedelics as mainstream media, government institutions, and modern science have all become increasingly interested in the healing potential of psychedelics in the context of therapy and mental health treatment. Therefore, before our system can begin offering this treatment modality in a competent, ethical, and effective manner, our healthcare practitioners, clinics, and institutions must be well-versed as to what this therapeutic modality is within clinical practice and research. This suggests the need for in-depth education, resources, literature, and training opportunities about what psychedelic-assisted therapy is and looks like within the context of mental health treatment.

A second relevant context of this topic is that we are currently in the midst of a mental health crisis where many ailments exist in the realms of mental and psychological health. According to the World Health Organization (2022), in 2019 it was estimated that on a global scale, 970 million people experienced a mental illness or mental health condition, mainly in the ailments of anxiety and depressive disorders. The World Health Organization (2023) also provided an approximation of how many individuals experience depression on a global scale which was 3.8% of the total population and estimated that each year 703,000 individuals engage in suicide which is the act of ending one's own life. Mental illness and mental health ailments are also prevalent in the United States as it is estimated that "more than one in five U.S. adults live with a mental illness (57.8 million in 2021)" (National Institute of Mental Health, 2023, para. 1). Within Canada it is estimated by the Canadian Mental Health Association (2021) that 1 in 5 people within Canada will directly experience a mental health condition, highlighting that mental illness does not discriminate in the sense where it can impact anyone regardless of age, gender, cultural background, socio-economic status, and education status.

The COVID-19 pandemic harmed not only physical health, but also operated to the

detriment of mental, emotional, and psychological health (Dawood, Tomita, & Ramlall, 2022). For example, one systematic review and meta-analysis uncovered a relationship between the COVID-19 pandemic and an increase in mental health ailments across the globe as “based on only six studies with longitudinal data, an increase between 9% and 31% in the prevalence rates before and after the pandemic were found for anxiety, depression, stress, and sleep problems” (Dragioti et al., 2022, p. 1943). For some individuals already struggling with mental health ailments before the COVID-19 pandemic, the isolation and fear of the pandemic exacerbated these symptoms and conditions. One study found that individuals who were suffering from mental health ailments and were diagnosed with pre-existing mental health conditions “experienced a perceived worsening of symptoms throughout the COVID-19 pandemic, as well as feelings of loneliness and anxieties related to pandemic stress” (Miller et al., 2021, p. 726).

A third relevant context of this topic is the lack of efficacy in the traditional mental health treatments offered by our healthcare system. For example, criticisms can be found in the medication model, one of the main conventional approaches for treating mental health ailments in Western medicine. The medication model is rooted in the idea that mental and psychological distress stems mainly from biological imbalances, thus the main mechanisms of change within pharmacological treatment are rooted in targeting “neurotransmitter receptor families, ion channels, and enzymes” to evoke positive change (Paul & Zotter, 2024, p. 3). This perspective of the medication models fails to take into account how other indicators of well-being, such as emotional, psychological, and spiritual health, contribute to the emergence of mental illness and disease.

Secondly, pharmacological treatments like antipsychotics and antidepressants are “taken chronically daily to relieve symptoms and normalize mood” (Smith, 2025, para. 5). The criticism

of this form of mental health treatment is that while medications can be effective for managing or alleviating the symptoms associated with conditions such as anxiety, schizophrenia, and depression, they can fail to address the deeper-rooted issues which are causing the emergence of these mental health conditions. Additionally, while the application of pharmacological treatments can provide relief of symptoms, they can create adverse side effects which can increase psychological or mental distress. For example, one study found that “all antipsychotic medications are associated with an increased likelihood of sedation, sexual dysfunction, postural hypotension, cardiac arrhythmia, and sudden cardiac death” (Muench & Hamer, 2010, para. 1). Another study reported that adverse side effects of antidepressant medication “included dry mouth, weight gain, drowsiness, blurred vision, increased appetite, problems with sexual function, palpitations, sweating, lightheadedness, and disorientation” (Shahi et al., 2023, p. 223).

The mental health crisis, the exacerbation of this crisis due to the COVID-19 pandemic, and the lack of efficacy regarding traditional mental health treatments all demonstrate that our healthcare system today needs innovative treatments that are evidence-based, cost-effective, and integrative in the sense that they tend to the mind, body, heart, and spirit regarding healing, all of which aligns with the practice of psychedelic-assisted therapy. This treatment can not only be utilized to assist clients on their journey of healing, but also can be used to take care of the people who are of service to others through their work (healthcare workers, doctors, counsellors, therapists, nurses, physicians).

Purpose of Paper

The purpose of this paper is to provide an introductory guide to psychedelic-assisted therapy in clinical practice for treating a wide range of mental health ailments that are prevalent in today’s world. The aim is to demonstrate the efficacy and legitimacy of this emerging form of

therapy, with the hopes of contributing to a field of literature that will not only support the widespread legalization and regulation of psychedelic-assisted therapy, but also reduce the stigma by demonstrating the validity of this form of healing for healthcare practitioners who believe psychedelics are harmful, bad, dangerous, addictive, or destructive, and hold no medical or therapeutic value. This goal is to be accomplished by reviewing the literature regarding psychedelic-assisted therapy regarding what substances are being used for specific mental health ailments, highlighting its socio-cultural history within Western healthcare and culture, discussing the foundational components of this therapeutic modality, outlining ethics, and overall providing a comprehensive guide on the use of psychedelics within clinical, therapeutic containers. I hope one day to see psychedelic-assisted therapy become an accessible form of healing for people all over the world, and to see our medical system embrace this therapeutic modality by supporting the work of clinicians, clinics, and healthcare practitioners who are immersed in this emerging field of therapy.

Theoretical Framework

Psychedelic-assisted therapy is an emerging therapeutic modality within Western healthcare and medicine. At this point, psychedelic-assisted therapy adheres to a multi-interdisciplinary approach, wherein practitioners and facilitators can integrate a wide variety of therapeutic methods, techniques, and approaches within this form of therapy.

One theoretical framework that I will use is neurological systems, which is an approach to therapy which primarily focuses on how the health of one's brain impacts mental and psychological health, behaviour, emotional regulation, and an individual's sense of well-being. Within this paper, the interventions connected to this theoretical framework that will be discussed are neuroplasticity and somatic experiencing.

A second theoretical framework that is often utilized within the practice of psychedelic-assisted therapy is holistic health which is an approach to well-being that states “each person’s body comprises multiple parts” (Knight, 2022, para. 10). The holistic perspective acknowledges the importance of the body, mind, heart, and spirit connection in relation to healing and wellness, positing that the health of each part is equally as important as the next part. The interventions connected to this theoretical framework that will be discussed are inner healing intelligence and healing underlying wounds.

A third theoretical framework that will be discussed is transpersonal psychology which is an approach to understanding human consciousness that primarily focuses on “the range of altered states of consciousness and their implications to ego or personal self, transcendence, and the spiritual” (Grob & Bossis, 2017, p. 316). Transpersonal psychology adheres to the philosophy that directly experiencing altered states of consciousness can result in alterations in self-perception and existential understanding, resulting in improvements in well-being, positive behavioural change, and increasing one’s sense of purpose.

Significance of this Capstone

This capstone is important to write because in recent years the curiosity for using psychedelics for therapeutic purposes has grown tremendously within both the healthcare system and the general public. The increasing amount of interest and coverage from popular media outlets regarding books, TV shows, films, and interviews that discuss the use of psychedelics for healing and therapy has been a medium through which psychedelic-assisted therapy has garnered attention within mainstream culture. Furthermore, through the emerging research in the past few decades from reputable institutions demonstrating the promising potential and efficacy of this therapeutic modality for treating a wide range of mental health conditions, psychedelics have

nestled their way into our healthcare system. As a result of these cultural, political, and medical shifts, it is vital that the healthcare system and the workers within it, namely counsellors, therapists, nurses, and physicians, are educated regarding what this therapeutic modality is, its history within culture and healthcare, and how psychedelics can be utilized for healing, therapeutic purposes. This is to ensure that our healthcare system is ready to provide competent, ethical, and responsible care for the citizens who are seeking to receive this therapeutic modality.

Personal Positioning of Author

I am an Indo-Canadian second-generation immigrant, a person of color, male, a counsellor in training, a music therapy practitioner, and mental health advocate. I reside in the unceded, ancestral, traditional homelands of Səlilwətaʔ (Tsleil-Waututh), Xwməθkwəy̓ əm (Musqueam), & ʼSk̓ w̓x̓ wú7mesh (Squamish) peoples in Vancouver, BC, Canada. My interest in the field of psychedelic-assisted therapy is of professional curiosity regarding how these medicines can help human beings heal regarding body, heart, mind, and spirit. I have been following the research within Western healthcare and medicine over the years, and it has been quite remarkable to notice the shifts happening within science, culture, medicine, and politics regarding the emergence of psychedelics for the use of healing.

Definition of Terms

Dosing Session

The dosing sessions refer to when the client directly undergoes a consciousness-altering experience with the chosen psychedelic under the supervision of a team of healthcare professionals (Palitsky et al., 2024).

Integration Sessions

The integration sessions are “recognized as a substantial part of psychedelic-assisted

therapy (PAT), following preparation to and facilitation of the psychedelic experience” (Gren et al., 2024, p.1). It is often deemed to be the most important part of psychedelic-assisted therapy regarding making sure that the therapeutic goals have the best chance of succeeding.

LSD

LSD, also known as “lysergic acid diethylamide,” is a psychedelic substance that is not naturally occurring, and instead is created through synthetization (Dowbiggin, 2018, para. 3). It was created by Swiss chemist Albert Hoffman in 1938 and it is often referred to as “acid” within mainstream media and culture. LSD involves changes in visual, auditory, and sensory perception, including shifts in one’s perception of self, reality, and time.

MDMA

MDMA stands for 3,4-methylenedioxy-methamphetamine and it is “structurally similar to amphetamine-like stimulants and mescaline-like hallucinogens” (Pitts et al., 2018, p. 377). It is a synthetic drug that alters mood and perception, commonly known as ecstasy or molly in mainstream culture. MDMA is classified as a stimulant and a hallucinogen, producing feelings of pleasure, emotional warmth, and distorted sensory and time perception. It is often used recreationally in social settings and has been studied for potential therapeutic applications, particularly in the treatment of PTSD.

Preparatory Sessions

Preparatory sessions refer to a process where the healthcare team gathers information about the client that is pertinent to the therapeutic process, focusing on whether or not the client is a suitable fit to receive this form of therapy by exploring topics such as contraindications, mental health history, significant life events, personal beliefs, and interpersonal relationships in the world (Thal et al., 2022).

Psilocybin

Psilocybin is a naturally occurring psychedelic compound found within the “psychoactive psilocybe genus of mushrooms” (Bruna et al., 2021, para. 2). It is commonly known as magic mushrooms and as a healing agent it has been “used for centuries as sacraments within indigenous cultures” (Johnson & Griffiths, 2017, p. 1). In recent years it has gained attention in modern research for its therapeutic and healing effects, particularly in the treatment of depression, anxiety, and end-of-life anxiety. It is classified as a hallucinogen and is considered a Schedule I controlled substance in many countries.

Psychedelic-Assisted Therapy

Psychedelic-assisted therapy is a therapeutic modality within Western medicine and healthcare which notably includes the administration of consciousness-altering substances in conjunction with traditional and/or progressive psychotherapy practices (Peacock et al., 2024). The current practice of psychedelic-assisted therapy is a model that has been developed and refined over time by researchers, therapists, and consciousness explorers, and is a model that is continuously evolving and expanding as novel research emerges.

Psychedelics

The term psychedelic refers to the concept of mind manifesting and was originally coined by “British psychiatrist Sir Humphrey Osmond,” a pioneer in the field of psychedelic-assisted therapy, most recognized for his work exploring the therapeutic potential of LSD and Mescaline with clients in healthcare settings during the 1950’s in Saskatchewan (Lieberman, 2021, p. 1460). Within Western culture, medicine, and healthcare, the substances that typically fall under the umbrella term psychedelics include MDMA, LSD, ketamine, psilocybin mushrooms,

and Ayahuasca. It is important to note that some psychedelic substances such as psilocybin mushrooms, ayahuasca, and ibogaine are naturally occurring, while others like MDMA, ketamine, and LSD are synthesized chemically inside a laboratory.

Psychedelic Therapist/Counsellor

The psychedelic therapist or counsellor is the individual who is tasked to facilitate the preparatory, dosing, and integration session and is responsible for ensuring the client's physical, emotional, and psychological safety throughout the entirety of the therapeutic process (Phelps, 2017).

Chapter Summary

In this chapter I discussed the context of psychedelic-assisted therapy, the overall purpose of this paper, introduced three theoretical frameworks, provided definitions of important terms, and discussed the significance of this capstone. In the next chapter, I will discuss the interventions utilized within the theoretical frameworks of psychedelic-assisted therapy, outline a brief history of psychedelics in Western healthcare and culture, examine the current structure of this therapeutic modality within Western clinical practice and research, and explore ethical considerations.

Chapter 2: Psychedelic-Assisted Therapy

The purpose of this chapter is to provide a literature review on psychedelic-assisted therapy which will include outlining the history of the recreational and therapeutic use of psychedelics within Western culture and healthcare, and the current practice of psychedelic-assisted therapy regarding its core foundational components. I will discuss the three theoretical frameworks mentioned in Chapter 1 and how they could be integrated into this healing modality. I will also mention the ethical considerations of psychedelic-assisted therapy, as well as the role of the counsellor or therapist within this therapeutic modality.

Brief History of Psychedelics within Western Healthcare and Culture

Psychedelics and Western Culture

One of the most influential figures whose story contributed greatly to psychedelics finding their way into Western culture was Gordon Wasson. Gordon Wasson worked as an “investment banker at J. P. Morgan” who, alongside his wife Valentina Pavlovna Guercken, had a personal fascination with the study of mushrooms both psychoactive and non-psychoactive (Ceraso, 2008, p. 233). In 1955, Gordon and his wife participated in an ancient Mazatec mushroom ceremony where they ingested psilocybin mushrooms and had a direct consciousness-altering experience with the psychedelic. Upon returning to America, Gordon was able to publish a written essay “in Life Magazine describing his experiences at a Mexican mushroom ceremony” (Ceraso, 2008, p. 217). This had a monumental impact on the existing culture at the time as Life Magazine was one of America’s most popular magazines. As a result of this publication, the idea of hallucinogenic psilocybin mushrooms made its way into the minds of many readers throughout North America, sparking an interest into the nature of psychedelic experiences.

A second influential figure whose story also contributed greatly to psychedelics finding their way into Western culture was Timothy Leary. Timothy Leary received a Ph.D. in psychology from Berkeley University, and in the 1960's he was invited to teach and lecture at Harvard University. Alongside colleagues and fellow researchers, such as Richard Alpert, Leary created the Harvard Psychedelic Club. In this club experiments took place exploring the therapeutic potential of psychedelics for treating mental health conditions, exploring one's creativity, and inducing spiritual or mystical experiences. It is important to note there existed a great amount of controversy within Harvard University about both the ethical nature of these experiments and the legitimacy of the research that was being conducted. Regarding the controversy about the legitimacy of the research, Leary and Alpert were known to consistently resist "conforming to the trial methodology that was taking hold in the rest of the life sciences world" (Moreno, 2016, p. 113). For example, at times during the experiments Leary and Alpert would also ingest psychedelics alongside the participants they were monitoring, which would greatly hinder their ability to obtain objective insights or observations from the sessions. In addition, the potential consequences and dangers of the psychedelics being used were not fully assessed or understood. Ultimately, Harvard University fired Richard Alpert and Timothy Leary (Hall, n.d. para. 8). By then the work made a significant impact on the emerging counterculture movement because of their pioneering research and outspoken advocacy for psychedelic substances. Both became prominent cultural figures in the field of spirituality and psychedelics and thus contributed greatly to the counterculture movement in the 1960s and 70s. Richard Alpert went on to study Eastern philosophies in India, subsequently returning to America while adopting the name Ram Dass and becoming an influential figure in the realms of spirituality and philosophy. Timothy Leary went on to famously coin the phrase turn on, tune in, and drop out

which encouraged the youth and members of the counterculture “to take drugs, discover their true selves, and abandon convention” (Nichols, 2016, p. 276).

The core central values of this emerging counterculture movement revolved around the antiwar revolution, personal liberation, spiritual exploration, defying the authority of the government, and challenging existing societal norms. First and foremost, these core values were “perceived by the mainstream culture to be a consequence of drug use” which heavily influenced the public perception of psychedelics in a negative way (Nichols, 2016, p. 276). Secondly, the widespread recreational use of psychedelic substances, particularly LSD, was perceived in the eyes of governing institutions to be a catalyst for the emergence of this counterculture movement as a whole, a movement that the authority structures assessed was a serious threat to the status quo of civilized society within western society politically, culturally, and economically. Furthermore, at this time within the media stories about “drug-induced insanity, chromosomal damage,” suicides, and accidental death associated with the use of psychedelics began to surface; whether they were based on real research or not, the reports had a significant negative impact on the public’s perception of psychedelics (Nichols, 2016, p. 276). For example, one story in the media reported that in Australia, “Anne Hamilton-Burns founded a ‘Family’ cult that she ran from 1963 to 1987 in which she used LSD to convince her followers that she was the reincarnation of Jesus Christ” (Hall, 2002, p. 27).

It is also important to note that there were also legitimate concerns around how the unregulated, recreational use of psychedelics within society could cause serious physical, psychological, and mental harm to civilians as the consciousness-altering effects of these substances were deemed to be quite substantial and impactful. As a result of all of these factors in 1973 psychedelics were officially classified as Schedule 1 drugs under the Controlled

Substances Act. This decision was part of Richard Nixon's War on Drugs movement, where the United States government emphasized that they were protecting the public from dangerous substances that have both a high potential for abuse and no accepted medical use. While this process removed access to psychedelics as a form of recreation, it also consequently "blocked mainstream research on these compounds for decades" (Marks & Cohen, 2021, p. 1669). The studies that were being conducted were forced to shut down promptly and the process of receiving both approval or grants for researching on psychedelics for therapeutic applications was arduous and lengthy.

Humphrey Osmond and Canadian Research

The term psychedelic was originally coined by "British psychiatrist Sir Humphrey Osmond," a pioneer in the field of psychedelic-assisted therapy, most recognized for his work exploring the therapeutic potential of psychedelics with clients in clinical, healthcare settings during the 1950s in Canada (Lieberman, 2021, p. 1460). Humphrey Osmond, a psychiatrist who accepted the position as Director of Research at Weyburn Mental Health Hospital in Saskatchewan, Canada in 1951, "had good research funding from the Canadian government and the Rockefeller Foundation" which provided him with a unique opportunity to freely explore his research interests about the intersectionality between psychiatry, psychedelics, and mental health (Osmond, 2004, p. 713). Osmond viewed "LSD as an active psychotherapeutic agent that could generate insight, among both staff and patients, into what it felt like to be schizophrenic, and therefore what was needed for the proper management of the disease itself—either in hospital wards or in the community" (Dyck & Farrell, 2018, p. 243). Osmond argued that the therapeutic value of having healthcare workers and practitioners under a direct consciousness-altering experience with LSD would create an increased sense of empathy and understanding for the

patients they are working with who were diagnosed with schizophrenia or psychotic disorders. He was hoping that healthcare providers' own lived experience with LSD would enable them to obtain "meaningful insights into behavior that otherwise appeared irrational or bizarre" (Dyck & Farrell, 2018, p. 244). Secondly, it is important to note that Osmond was also exploring the therapeutic applications of LSD as a potential treatment for alcoholism, theorizing that the treatment of alcoholism through the therapeutic applications of LSD would "scientifically prove that the condition was a disease and not the result of a weak or immoral character" (Dyck, 2006, p. 313).

Other applications of Psychedelics within Therapy and Clinical Research

In the 1950s and 60s, Lysergic Acid Diethylamide or LSD was an emerging topic of interest amongst healthcare intuitions, clinicians, and researchers who were interested in progressive, novel methods for treating a wide range of mental health conditions. LSD was synthesized by chemist Albert Hoffman in 1938 who at the time was working for Sandoz Pharmaceuticals. The discovery of this psychedelic intrigued both Albert and Sandoz regarding how LSD can be used in conjunction with psychotherapy practices for therapeutic purposes. In the 1950 Sandoz Pharmaceuticals began the process of shipping out LSD to intuitions, clinicians, psychologists, therapists, and researchers who expressed interest in integrating this psychedelic into their current practice with patients or clients. As a result of this process, which allowed pharmaceutical-grade LSD to be distributed worldwide, "by the mid-1960s, LSD had been prescribed to approximately 40,000 patients in the United States and spawned over 1000 scientific papers, dozens of books, and cover stories in Time and LIFE magazine" (Lieberman, 2021, p. 1460). For example, in the late 1950s and early 1960s a Canadian Clinical Psychologist, Gary Fisher, was exploring the therapeutic applications of LSD in conjunction with

psychotherapy to treat children “the ages of four to thirteen who suffered from autism and schizophrenia” and to treat patients who were dying (Purdue University, n.d.). Another notable research study that occurred during the early 1960s was the Marsh Chapel Experiment which was run by Walter Pahnke who received supervision from Timothy Leary and Richard Alpert, professors working at Harvard University at the time. The underlying intention of this study was rooted in Walter Pahnke’s hypothesis that psychedelics had the potential of generating a visceral and direct experience with the mystical for volunteers who digested the psychedelic in a religious setting, elaborating that “such experiences would result in persisting positive changes in attitudes and behaviour” (Doblin, 1991, p. 2) Unfortunately, a great deal of this work was abandoned due to the emerging War on Drugs movements in the 1970s, and thus the research process in many of these situations was interrupted, delayed, and in some cases shut down entirely.

Psychedelic-Assisted Therapy

Psychedelic-assisted therapy as it exists today within clinical practice and academic-based research is a therapeutic modality that has “demonstrated promise in the treatment of depression, anxiety, and substance use disorders” (Danas & Appel, 2023, p. 1). This therapeutic modality notably utilizes consciousness-altering substances in conjunction with psychotherapy practices to improve one’s quality of life, and help individuals achieve healing within their body, heart, mind, and spirit. This section of the paper will focus on identifying and discussing the core foundational components present within clinical research and practice.

Foundational Components

The foundational components of psychedelic-assisted therapy include the preparatory, dosing, and integration sessions, all of which are currently implemented within legal, regulated psychedelic-assisted therapy in both practice and research.

Preparatory Sessions.

The initial step within psychedelic-assisted therapy is the preparatory sessions which occur after a client has already expressed interest in receiving this form of therapy. Within these sessions, one of the first steps the healthcare team conducts are assessments to gather information about the client that is pertinent to the therapeutic process. At first, there is a specific focus within this process on assessing whether or not the client is suitable to receive this form of therapy by reviewing previous mental health history and contradictions. Once the client is deemed fit to receive this form of therapy, the preparatory sessions focus on building a therapeutic rapport between the client and the healthcare team that will be supporting them throughout their process, introducing the client to the concept of set and setting, navigating consent with touch during the dosing session, choosing the psychedelic that will be utilized, providing psychoeducation “about events that may occur during the medicine session,” booking in the dosing and subsequent integration sessions, and making space to address any additional questions or concerns the client may have (Brennan & Belser, 2022, p. 4).

Assessment.

As aforementioned, one of the first steps the healthcare team conducts with a client is the assessment process, a process which is intended to gather information about the client that is pertinent to the therapeutic process. The assessment process can differ throughout healthcare organizations, clinics, and institutions depending on their model of care, scope of practice, and what psychedelic is being used in conjunction with therapy. It typically involves a series of questions about the client’s health history regarding physical, emotional, mental, and psychological wellness. This information is important especially if the healthcare team uncovers any contraindications which would deem the client unfit for receiving psychedelic-assisted

therapy as a form of treatment. In terms of physiological health, the present-day literature suggests that contraindications include pregnancy, a history of epilepsy, or a history of severe cardiovascular diseases (MacCallum, Pistawka, & Deol, 2022). In terms of mental health contraindications, the present-day literature suggests that individuals who have a genetic predisposition for psychotic illnesses are deemed unsafe to engage in psychedelic-assisted therapy (Zannese, 2022). This would include a diagnosis of schizophrenia or schizoaffective disorder, extending as well to a diagnosis of borderline personality disorder and bipolar disorder. The healthcare team would also be looking for any possible contraindications in terms of medication that could adversely interact with the psychedelic substance being used. This is important because “the concurrent use of psychotropic medications, especially antidepressants and antipsychotics, may introduce risks (safety concerns) or alter benefits (efficacy concerns)” (MacCallum, Pistawka, & Deol, 2022, p. 5). The assessment process also includes inquiring into the client’s previous history with psychedelic substances. If the answer is yes, the healthcare would inquire into the nature of these experiences in terms of what substance was digested, how the experience was overall, and how the client felt in the days, weeks, and/or months following the experience. The healthcare team would also aim to identify whether these psychedelic substances were consumed in either a therapeutic or recreational manner. The assessment phase additionally “provides an important opportunity for the therapists to address the participant’s questions and concerns” (MAPS, 2015, p. 17).

Set.

Once the assessment process is complete and the healthcare team deems the client safe to receive psychedelic-assisted therapy, the concept of set is introduced. Set is a foundational component of the practice of psychedelic-assisted therapy and is a vital step in the preparatory

sessions as this component plays a pivotal role in ensuring that the therapeutic goals have the best chance of being achieved. The concept of set was originally established by Timothy Leary in the 1960s and he defined it as one's "psychological factors of personality, preparation, expectation and intention" within the practice of psychedelic-assisted therapy (Hartogsohn, 2016, p. 1261). Expanding upon this, set can also be understood as "factors related to the person, idiosyncratic personality dynamics, mood and expectations that influence individual experience" (Winkelman, 2021, p. 2). The theme of expectations refers to addressing any pertinent cultural, spiritual, or religious beliefs they may have about the psychedelic experience or unpacking any pre-conceived assumptions about the nature of the experience and its potential effects on one's life. The theme of personality refers to the counsellor or therapist gaining a deeper understanding of the client regarding their life history, personality traits, how their emotional responses shape their perception of the world, and mannerisms regarding communication styles or preferences.

The theme of intention is a crucial factor in differentiating the recreational use of psychedelics from psychedelic-assisted therapy as it refers to assisting the client in forming "meaningful goals or hopes before the" dosing session (Campo & Yali, 2024, p. 2). This process is commonly known as intention setting within clinical research and practice. The core of this concept is identifying the client's internal mental state in terms of their reason for requesting treatment. In other words, intention setting "represents the purpose for seeking out the experience" regarding why a client is interested in psychedelics as a healing modality (Campo & Yali, 2024, p. 2). Within the therapeutic alliance between counsellor or therapist and client, this means helping clients identify therapeutic material they would like to unpack during the dosing session and reflect on their intentions regarding how they relate to the therapeutic goals.

According to Haden (2023), set also refers to the client's present state of mind during the actual dosing session.

Therapeutic Alliance.

Another important phase of the preparatory sessions is “establishing an effective therapeutic alliance” between the counsellor or therapist and client (MAPS, 2015, p. 17). The therapeutic alliance “is recognised to be of fundamental importance across different psychotherapeutic models or approaches” (Murphy et al., 2022, p. 3). The quality of the therapeutic alliance has been demonstrated through research to be connected to the success of “psychotherapeutic treatment across a broad spectrum of types of patients, treatment modalities used, presenting problems, contexts, and measurements” (Stubbe, 2018, p. 1). Within psychedelic-assisted therapy, the counsellor or therapist provides consistent support throughout the entirety of the process, helping clients feel supported within the preparatory, dosing, and integration sessions. A thoughtfully considered therapeutic alliance rooted in safety, trust, authenticity, and transparency helps the client “feel assured that her/his wellbeing will be attended to with utmost care, including ensuring physical and psychological safety” (MAPS, 2015, p. 19). A core aspect of creating a therapeutic alliance with psychedelic-assisted therapy is relational safety, which is a concept that emphasizes “the importance of establishing a trusting, supportive therapeutic container” (Argento et al., 2024, p. 7). Relational safety is deemed important within the therapeutic alliance because it can increase a client's willingness to embody vulnerability, which as a result can help them “feel more secure and better able to confront and integrate challenging or painful memories and emotions” (Argento et al., 2024, p. 7).

Dosing Session.

Once the preparatory sessions are complete, the client undergoes a dosing session

wherein they undergo a psychedelic experience within a clinical, therapeutic container. Psychedelics have been demonstrated to evoke swift and powerful effects on one's consciousness which includes changes to perception, cognition, awareness, and emotions (Yehuda & Lehrner, 2023). Furthermore, the research posits that the psychedelic experience within the dosing session can provide a client with an opportunity to achieve increased insight into the nature of their psyche and wounds as they are better able to "grapple with their memories, address their traumas, and actively participate in the work that healing requires" (Beswerchij & Sisti, 2022, p. 4). The timeline of the psychedelic experience regarding the onset of initial effects, the peak or climax where the effects are fully felt, and the subsiding of the effects depends on what type of psychedelic is being used, and the method of digestion. That being said generally a client's consciousness can experience "heightened awareness of one's internal states and feelings of connectedness that last for several hours" (Yehuda & Lehrner, 2023, p. 813). The dosing session component of this therapeutic modality is a unique one as it differentiates this practice of healing from other practices. Within the dosing session, the client has a chance to directly experience the profound consciousness-altering effects of a psychedelic within a clinical, therapeutic container, guided by their intentions to heal, develop, and grow.

Dose.

It is important to note that differences in dosing protocols exist within the field of psychedelic-assisted therapy amongst various organizations, clinics, and healthcare institutions that are active in clinical research and therapeutic practice. This is relevant as different doses produce varying emotional, physical, and psychological effects. For example, the non-profit organization MAPS (Multidisciplinary Association for Psychedelic Studies) stated in their

protocol for a Phase 3 study exploring MDMA-Assisted Psychotherapy as a treatment for PTSD that 80 mg or 120 mg would be the initial dose for the three sessions (MAPS Public Benefit Corporation, 2021). In a randomized, double-blind, cross-over trial which explored the impacts of psilocybin-assisted therapy for the treatment of anxiety and depression, the doses of psilocybin utilized was 1 or 3 mg/70kg (low dose, placebo) and 22 or 33 mg/70 kg (high dose) (Griffiths et al., 2016). For a randomized, double-blind, placebo-controlled trial exploring Ketamine-assisted therapy for depression, the single IV dose of ketamine infusion that was administered was 0.5 mg/kg (Yavi et al., 2022).

Setting.

In the practice of psychedelic-assisted therapy, setting generally refers to the immediate physical surroundings during the dosing session itself, highlighting the sentiment that a carefully considered environment is pertinent to ensuring psychological, physical, mental, and emotional safety for the client while they are under the influence of a psychedelic (Noorani, 2021). First and foremost, the physical environment should “be designed keeping in mind the perceptual changes and disorientation that can occur under the influence of” psychedelic substances (Johnson, Richards, & Griffiths, 2008, p. 12). According to Johnson, Richards, & Griffiths (2008), this means ensuring any dangerous objects which could potentially cause serious harm should be removed such as sharp objects, breakable objects, furniture with sharp edges, glass items, or hazardous materials. Secondly, according to Haden (2023), within the practice of psychedelic-assisted therapy inside clinical, therapeutic settings, the physical environment should be a combination of professional and relaxing. A key consideration here is that “an aesthetically pleasing environment may decrease the probability of acute psychological distress” (Johnson, Richards, & Griffiths, 2008, p. 12). This is important because the “degree of comfort/

safety likely affects the ability to express one's authentic self during a psychedelic experience and can have a pronounced effect on outcomes" (Campo & Yali, 2024, p. 3). Haden (2023) suggests that the physical environment should include essential items such as a comfortable couch or bed, blankets, pillows, eye shades, plants or flowers, a lighting system that allows for variability, and a soundproof door and walls to ensure confidentiality. Additional considerations, which can vary depending on the client's preferences and the therapeutic goals for the session, can include pictures of loved ones (friends, family, partners), the presence of religious or spiritual elements that the client finds meaningful or personally significant, or any other personal items that evoke a sense of comfort or safety.

Role of the Counsellor or Therapist

Within the dosing session in psychedelic-assisted therapy, the role of the counsellor or therapist undergoes a significant paradigm shift from a directive role, something that is typically embodied within the preparatory and integration sessions, to a more supportive, client-centred role. According to Phelps (2017), the six core competencies of psychedelic counsellors or therapists include empathetic abiding presence, trust enhancement, spiritual intelligence, knowledge of the physical and psychological effects of psychedelics, counsellor or therapist self-awareness and ethical integrity, and proficiency in complementary techniques. For empathetic abiding presence, amid the dosing session the counsellor or therapist is tasked to embody "presence, curiosity, and openness to the client's subjective narrative of their medicine journey and whatever meanings they might derive from that experience" (Wolfson, 2023, p.199). In empathetic abiding presence, the counsellor or therapist is also called upon to be flexible within each psychedelic session which includes consistently embodying "equanimity and natural comfort in listening deeply and moving gracefully" alongside the client as they are immersive in

their psychedelic experience (Phelps, 2017, p. 462). By being emotionally attuned to the client's dynamic psychedelic experience, the counsellor or therapist can create a steady and supportive environment that helps the client explore their consciousness with a sense of safety. For trust enhancement, Haden (2023) argues that trust should manifest itself in three primary ways within a client: the client should perceive the counsellor or therapist as honest and reliable; the client should have trust in their inner healing intelligence; the client should fundamentally understand that the psychedelic experience can involve unanticipated and overwhelming moments and that this is all a normal part of the healing process. When trust is effectively established during psychedelic-assisted therapy, it "contributes to the participant's felt sense of a stable and safe set and setting" (Phelps, 2017, p. 464). Trust is especially important within psychedelic-assisted therapy given that the client is undergoing a direct, visceral consciousness-altering experience wherein there can exist profound shifts in perception, senses, and orientation to time a space. According to Haden (2023), a counsellor or therapist working in psychedelic-assisted therapy who embodies the competency of spiritual intelligence possesses a fundamental understanding of our connection to the divine or transcendent, to nature and the earth, to each other, and all of existence. In this way, a counsellor or therapist can learn to be with, navigate, and honour the wide range of spiritual and mystical states of being that can be induced by clients undergoing psychedelic-assisted therapy. For knowledge, a counsellor or therapist working in psychedelic-assisted therapy should be well-versed in the "anatomy, physiology, neurobiology, pharmacology, drug disposition and interactions, and neuropharmacology of psychedelic drugs" (Haden, 2023, p. 29). A counsellor or therapist should also be educated regarding "risk assessment and mitigation for acute, difficult effects, such as the potential overwhelming distress of dysphoric somatic, emotional, and existential experiences in a session" (Phelps, 2017, p. 467).

By demonstrating proficiency in these areas, a counsellor or therapist can demonstrate to the client that they are learned, educated, and informed within the practice of psychedelic-assisted therapy. This builds the client's confidence in the counsellor's or therapist's competence and ability to handle complex, adverse, and adverse experiences that can arise. This confidence is essential for fostering a therapeutic relationship wherein the client feels secure and supported throughout their journey. For self-awareness and ethical integrity, this competency includes “self-awareness of personal motives for this work; integrity in protecting boundaries with the volunteers; well-developed capacities for building therapeutic alliances; skills in attachment theories, and transference-countertransference analysis; and personal self-care” (Haden, 2023, p. 30). Countertransference refers to the “internal and external reactions in which unresolved conflicts of the therapist, usually but not always unconscious, are implicated” (Hayes et al., 2018, p. 497) and Phelps (2017) argues a counsellor or therapist must have a sufficient amount of self-awareness regarding the countertransference dynamics within their therapeutic alliance with the client. This is the case within psychedelic therapy because, due to the consciousness-altering effects of psychedelics, a client can experience heightened states of vulnerability wherein unresolved issues, emotional wounds, and unhealed patterns can rise to the surface in an intense, visceral manner. This means the counsellor or therapist must be present, grounded, regulated, and able to be with the client as these heightened states are unfolding. For proficiency in complementary techniques, this competency “are skills and knowledge that form a toolbox of complementary therapeutic methods to use in various phases of the therapy and research” (Phelps, 2017, p. 472). According to Haden (2023), the therapeutic methods that can be utilized within psychedelic-assisted therapy include mindfulness meditation, somatic experiencing

techniques, Holotropic breathwork, any practice that promotes nervous-system regulation, and expressive arts therapy.

Integration Sessions

The last component within the practice of psychedelic-assisted therapy is integration sessions wherein the role of the counsellor or therapist is to help clients “weave all aspects of the therapeutic experience into a new relationship with self, with others, and with their traumatic history” (Mithoefer, 2015, p. 44). The integration process is perceived to be more important than the actual dosing session experience itself in terms of making sure the therapeutic goals are achieved. This is the reason because any moment of insight gained or lesson learned from the dosing session becomes ultimately ineffective if the client fails to implement tangible, measurable change within their daily life. Gorman et al. (2021) suggests that effective integration merges the therapeutic, psychedelic experience into the client’s daily life in a way where their quality of life increases and their sense of suffering decreases. Expanding upon this, a core underlying purpose or goal of “integration is to help participants process the medicine session and translate that experience into meaningful life changes” (Stein et al., 2022, p. 380). Within integration, counsellors or therapists are tasked to “provide compassionate support and recognition of any psychological insights or changes” that have occurred within the client as a result of undergoing the psychedelic experience (Murphy et al., 2022, p. 7). Here clients may “touch on tender places and deep wounds that may have been re-visited in the session,” providing them with an opportunity to heal past traumatic experiences that are unhealed and in need of mending (Gandy et al., 2020, p. 9). Another role for the counsellor or therapist in integration is providing practices that the client can take into their own life to support them as they deconstruct their dosing session, helping ensure that the client remains cognizant of their

original intention as they focus on what they learned about themselves from the experience, or how the experience brought forth any information about their presenting problem that they were not previously aware of. According to Stein et al. (2022), the integration session can include active listening, providing validation, normalizing experiences, offering feedback, and facilitating healing, therapeutic practices such as writing, drawing, and mindfulness meditation practices. Additional integration activities a client can implement into their lives include “journaling, meditation, artistic expression, and any other activity that aids in moving the awareness gained through psychedelic experience from an intellectual framework to a holistic framework that incorporates the body” (Gorman et al., 2021, p. 11). Overall, counsellors or therapists are tasked to provide a therapeutic container wherein the client can reflect on, process, and ultimately make sense of the psychedelic experience that occurred during the dosing session, focusing on extracting meaning, insights, and lessons from the experience that can be implemented into one’s life to evoke healing and increase of well-being.

Ethics

Due to the fact that psychedelic-assisted therapy is a therapeutic modality that has recently emerged within Western healthcare, research is limited regarding ethics within the field of psychedelic-assisted therapy. However, there are established healthcare institutions, clinics, authors, and researchers that have been actively working in this field within the past two decades, compiling a collection of anecdotal and evidence-based research in an attempt to regulate psychedelic-assisted therapy within the healthcare system so that professional ethics and standards of practice are clearly defined.

Power Imbalance

In the clinical practice of therapy and counselling, “the relationship between a therapist

and a client is inherently unbalanced in terms of power” as the client is seeking guidance and support from the healthcare practitioner, one who is deemed to be educated, competent, and learned regarding their scope of practice (Boyd, 1996, p. 1). This power imbalance is especially pertinent to psychedelic-assisted therapy as the research posits that compounds such as MDMA, Ketamine, and Psilocybin can profoundly alter one’s consciousness which includes changes in perception of self, other, time, and space, impairments in cognitive functioning, emotional euphoric states where qualities such as openness and safety are increased, and states of being where ego-dissolution and a loss of self can occur (Meikle et al., 2024). As a result of these changes, the research demonstrates that psychedelic experiences have the power to increase a client’s suggestibility, which refers to how readily one can be influenced by external factors such as statements or questions made by others, or cues in the social or physical environment (Carhart-Harris et al., 2015). The counsellor or therapist’s tone of voice, choice of words used for making statements or asking questions, physical presence and posture of their body, and facial affect all have the power to influence a client’s state of being during a psychedelic experience. Healthcare practitioners who have an interest in psychedelic-assisted therapy must actively cultivate awareness around this power imbalance dynamic, and commit to seeking guidance, supervision, and support from their peers or colleagues to mitigate potential risks and harms for clients. This is important because to provide ethical and effective therapy or counselling, it is a healthcare practitioner’s responsibility to be aware of power imbalances and how they may reveal themselves within the therapeutic relationship, fundamentally understanding how much influence their words and actions have over their client (Boyd, 1996).

Informed Consent

According to Jacobs (2023), informed consent in psychedelic-assisted therapy refers to a

process wherein a client is given a transparent outline of the treatment which includes discussing what the evidence-based research deems is the potential short and long-term benefits of psychedelics, the physical, emotional, mental, and psychological effects of the psychedelic during the dosing session, and the risks or harms of psychedelic use. According to Smith & Sisti (2020), the process of informed consent is particularly important within psychedelic-assisted therapy due to the powerful and profound changes in consciousness that can occur with psychedelic experiences. Therefore, healthcare workers must “discuss with patients the potential changes to aspects of their personality, preferences, and beliefs that may result from psychedelic use” (Barber & Dike, 2023, p. 841). Due to the nature of consciousness-altering experiences, “the ethical standard of informed consent should be rigorously followed” (Bradberry, Gukasyan, & Raison, 2022, p. 3). When a client is both informed and provided a comprehensive outline of the treatment of psychedelic-assisted therapy, they are in a place to make an autonomous decision about whether or not they would like to move forward with treatment.

The Therapeutic Use of Touch Within Psychedelic-Assisted Therapy

The therapeutic use of touch within psychedelic-assisted therapy is a topic of interest that demands a great deal of consideration because within the dosing session, “boundary violations are a risk when patients are in an altered state” (McGuire et al., 2024, p. 4). According to the literature and research, the non-profit organization MAPS (Multidisciplinary Association for Psychedelic Studies) declared within their code of ethics for the practice of psychedelic-assisted psychotherapy that counsellors or therapists who want to implement touch in their practice should only implement it for therapeutic, healing purposes (MAPS, 2021). A key idea in this statement is that counsellors and therapists must cultivate self-awareness and exercise appropriate, discerning clinical judgment to effectively evaluate and assess their “own

motivation when considering if touching a participant is appropriate” (MAPS, 2021, p. 4). This is important because if any part of the motivation for utilizing therapeutic touch originates from an attempt to address the counsellor’s and therapist’s own needs or desires, it would be unethical, inappropriate, and counter-therapeutic for the client.

A topic of interest regarding the use of therapeutic touch within the field of psychedelic-assisted therapy that is pertinent to ethics arises in the situation where a client does not consent to touch during a preparatory session, but requests touch from the counsellor or therapist amid a psychedelic experience during the dosing session. The literature and research are clear wherein the nature of a psychedelic experience can involve profound changes to one’s consciousness. For example, one psychedelic referred to as psilocybin has been shown to “cause mild to profound changes in sensory perception, including synesthesia, euphoria, sensory illusions, and auditory and visual hallucination” (Reiff et al., 2020, p. 393). Research has also deemed that individuals can experience “levels of changes along a perception-hallucination continuum of increasing arousal and ego-dissolution” (Preller & Vollenweider, 2018, p. 1). Furthermore, the research posits that the “subjective effects of psychedelics include visual hallucinations, euphoria, loss of sense of self, and some spiritual experiences” (Jaster & Gonzalez-Maeso, 2020, p. 1). What this literature and research conveys is that an individual who is undergoing a psychedelic can experience changes in consciousness that can significantly alter their perception of self and others, orientation to time and space, decision-making abilities, and overall cognition. As a result, the ethical predicament arises as to the proper course of action from the counsellor or therapist if a client requests touch amid a psychedelic experience, but in the preparatory session wherein the client was in a non-altered state of consciousness adhered to the agreement that no therapeutic touch would be present during therapy.

Within one view of the literature and research, MAPS declares that the counsellor or therapist must obtain consent for therapeutic touch before the participant ingests a psychedelic substance (MAPS, 2021). Supporting this view of the literature and research, Penn et al. (2024) declares that “consent for holding a hand or touching the arm of the patient in a moment of emotional distress is obtained before the drug is administered and can be withdrawn at any time during the session” (Penn et al., 2024, p. 609). What this view of the literature and research deems is that consent for therapeutic touch must be established before the dosing session when the client is in a non-altered state of mind, and that consent can be withdrawn but never added to within a dosing session.

A second view of the literature and research declares that the psychedelic experience can activate an inner healing intelligence, something which resides inside the client’s body, mind, and heart. This inner healing intelligence is perceived to be one of the primary mechanisms of change within psychedelic-assisted therapy, stating that the body possesses a mechanism that knows how to heal itself; therefore, it would be important to honour this intelligence when it makes itself known during a dosing session (MAPS, 2015). In the context of honouring the inner healing intelligence, this view believes it is important for the counsellor or therapist to respect the client’s autonomy wherein they are primarily responsible for choosing their own goals, advocating for their needs, and choosing a therapeutic course of action (Gorman et al., 2021). What this view of the literature and research deems is that it could indeed be counter-therapeutic for the counsellor or therapist to deny a client’s request for touch in the dosing session. This would be the case because the counsellor or therapist would hinder a client’s emerging inner healing intelligence.

A third view of the literature and research deems that counsellors or therapists should

strive to avoid using therapeutic touch altogether, suggesting that while the use of this intervention can provide benefits, the unknown short and long-term harms must be first adequately studied, researched, and reflected upon, something which has not happened within present-day research (Devenot et al., 2022). Additionally, Smith & Sisti (2020) argue that psychedelic experiences have the potential to compromise a client's decision-making ability and therefore any decision being made within a dosing session would be impaired.

One way to mitigate harm in this situation is to openly discuss this particular ethical scenario in the preparatory sessions. Here the counsellor or therapist and client can communicate with each other regarding how consent for therapeutic touch may change throughout the treatment process. This would allow all parties involved to establish agreed-upon boundaries which can bring forth clarity unto nuanced situations such as when the client initially declines therapeutic touch, but amid the dosing session requests therapeutic touch from the counsellor or therapist. The counsellor or therapist's duty would be to actively engage in a conversation with the client regarding therapeutic touch and informed consent and inquire into how the client's perception of boundaries is susceptible to change within the dosing session as their consciousness can be significantly altered by a psychedelic substance. Therefore, the client's perception of what constitutes a safe boundary within the therapist-client relationship during a dosing session may differ from that of the perception of safety within the preparatory sessions. A second way to mitigate harm would be to make the counsellor or therapist aware of alternative approaches they can implement within these scenarios during the training process for being certified in providing ethical psychedelic-assisted therapy. For example, alternative strategies that could be utilized in this situation would be implementing a self-soothing exercise where the client hugs themselves which can modelled by the counsellor or therapist, or providing the client

with a pillow or blanket to interact with for physical touch and comfort.

It is important to acknowledge that within the clinical practice and research of psychedelic-assisted therapy, clients have experienced inappropriate touch from the counsellor or therapist during the dosing session which has resulted in adverse, counter-therapeutic, and traumatizing experiences for the clients. As a result, there have been significant shifts in the literature and research within psychedelic-assisted therapy regarding the ethics of therapeutic touch. For example, in present-day clinical practice and research, “current protocols require therapists to work in pairs—ensuring the presence of a consultant and witness” (Smith & Sisti, 2021, pg. 810). This co-facilitator model is usually one male and female, and it is implemented to increase safety for the client. This is the case because having two facilitators can help mitigate any potential instances of taking advantage of someone who is amid a consciousness-altering experience.

Neurological Systems Theory

Neurological Systems Theory is a theoretical framework which explores the relationship that exists between our physiological body and emotional, psychological, and mental processes (Cammisuli & Castelnuovo, 2023). This theory examines how neural processes in our brain and body’s nervous system impact one’s overall health and sense of well-being. A core element of this theory is the branching of the autonomic nervous system into two main categories, the sympathetic and parasympathetic nervous systems. The sympathetic nervous system (SNS) controls the fight or flight response within the body. According to McCorry (2007), this response prepares the body to react to perceived threats in one’s environment and it results in physiological changes such as an increased heart rate, a redirection of blood flow to contracting muscles, and pupil dilation to let more light into the retina for improved vision. Within this

response, the body enters hyperarousal functioning which means it prepares itself to fight for self-defence or escape the situation by fleeing, both of which are self-protective measures. Beutler et al. (2022) suggests that when this state of hyperarousal is activated, it can result in an individual experiencing symptoms of post-traumatic stress disorder (PTSD) such as dissociation, derealization, and emotional or physical numbing. Conversely, Siciliano, Anderson, and Compas (2022) highlight how the parasympathetic nervous system (PNS) activates the rest and digest state. According to Beutler et al. (2022), this state is conducive to restoration and healing within the body as it slows the heart rate, enhances digestion processes, reduces blood pressure, and overall returns the body to a state of homeostasis. According to Tindle and Tadi (2022), the rest and digest state also activates the neurotransmitter acetylcholine which promotes feelings of calm and relaxation within the body. Overall, this state signals to the body that there is no perceived threat within one's environment and therefore one is safe, making it conducive for healing trauma within the therapeutic process as it helps provide a container for emotional processing and exploration. A second core element of this theory is the vagus nerve which is "the tenth cranial nerve, extending from its origin in the brainstem through the neck and the thorax down to the abdomen" (Breit et al., 2018, p. 2). What this means is that the vagus nerve connects the digestive system and organs to the brain through a network of signals. According to Breit et al. (2020), the vagus nerve is important to maintaining homeostasis because it can activate the parasympathetic state which promotes relaxation, calm, and restoration within the body, counteract the fight or flight response of the sympathetic nervous system, and overall help maintain a healthy balance between the SNS and PNS.

Traumatic Experiences & Brain Development

According to the literature and research, traumatic experiences in one's life can

have long-term adverse impacts on a human being's physiological body in the category of brain development. For example, traumatic experiences have been shown to not only impede executive functioning, a process associated with the prefrontal cortex that is responsible for "mental agility and cognitive control," but also reduce activity in the prefrontal cortex "which is involved in decision-making and impulse control" (Theodoratou et al., 2023, p. 3). According to Theodoratou et al. (2023), these changes in the brain contribute to suffering because they can impair memory, hinder one's ability to regulate emotions, and increase impulsivity. Secondly, Traumatic experiences can also adversely impact the HPA axis (hypothalamic-pituitary-adrenal), a core part of the brain and the body's stress response system. The HPA axis is part of the endogenous stress response system, and it regulates the release of glucocorticoids which subsequently helps provide the body with the energy required to manage stress (Cascino & Monteleone, 2024). Traumatic experiences can result in the HPA axis excessively releasing corticosteroids due to chronic or severe stress after a traumatic experience has occurred, resulting in dysregulation and impairment (Dye, 2018). This is important because the "release of cortisol activates sympathetic nervous pathways" which subsequently makes individuals more susceptible to experiencing the "fight or flight" response associated with sympathetic nervous system activation, leading to chronic, perpetual states of stress (Sherin & Nemeroff, 2022, p. 266). As a result of this impact on the HPA axis, traumatic experiences can impact an individual's "ability to modulate behavioural and cognitive responses to subsequent stress" (Dye, 2018, p. 383). What this means is that after an individual has experienced a traumatic event, "the brain structures responsible for regulating intense emotions are deactivated" (Dye, 2018, p. 383). For example, research studies have demonstrated that for individuals diagnosed with PTSD, there exist "structural and functional abnormalities in frontolimbic circuitry supporting threat

processing and emotion regulation” (Herrington, 2017, p. 2). As a result of these changes in the brain, a traumatized individual can consistently struggle to healthily manage the stressors of daily life. What this can look like is a heightened vulnerability to experiencing challenges with “regulating emotions such as anger, anxiety, sadness, and shame” (Center for Substance Abuse Treatment (US), 2014, p. 61). This research demonstrates that traumatic experiences can weaken and compromise the brain and body’s ability to activate the “rest and digest” state brought forth by the parasympathetic nervous system and vagus nerve, a response which according to Breit et al. (2020) reduces stress, promotes states of relaxation, reduces heart rate, and regulates mood. These adverse physiological impacts of trauma highlight a burden faced by traumatized individuals in that they are attempting to heal using a brain and body that is inherently wounded, ruptured, and weakened. An appropriate metaphor would be the futility of attempting to repair a broken machine using tools that are themselves fractured and damaged. The core sentiment being expressed here is that the very systems one is using to engage in the therapeutic process require healing and repair to function effectively, making an already tumultuous process even more adverse and distressing.

Post-Traumatic Stress Disorder (PTSD)

One of the neurological conditions related to sympathetic nervous system activation is Post-Traumatic Stress Disorder (PTSD). PTSD is a mental health diagnosis or condition that adversely impacts an individual’s quality of life in terms of physical, emotional, mental, and psychological well-being. According to the Canadian Mental Health Association (CMHA), PTSD affects approximately eight percent of the population in Canada. PTSD can be classified as “a mental disorder that may develop after exposure to exceptionally threatening or horrifying events” (Bisson et al., 2015, p. 1). According to the Diagnostic and Statistical Manual of Mental

Disorders V (2013), common signs and symptoms of PTSD include, but are not limited to, consistently avoiding aspects of events that remind the individual of the trauma they experienced (physical environments, objects, memories, people, social situations); intrusive memories, thoughts, feelings, or dreams all related to the traumatic event, overwhelming feelings of panic, distress, or anxiety; negative changes within one's mood; alterations in arousal and reactivity which includes frequent states of agitation, anger, and distress; a significant reduction in one's engagement within their daily life which includes withdrawing from work, social activities, and community events.

Neuroplasticity & Psychedelic-Assisted Psychotherapy

The evidence-based research posits that psychedelic-assisted therapy can evoke a process known as neuroplasticity which is a concept that “refers to the ability of the brain and CNS to adapt to environmental change, respond to injury and acquire novel information by modifying neural connectivity and function” (Knaepen et al., 2010, p. 766). It is a process that occurs within the brain and body, a process that can also be defined “as changes to the structure, function or connections of the nervous system in response to individual experience” (Axelrod et al., 2023, p. 1). In terms of a human being's life, neuroplasticity is an essential process that helps us grow, learn, evolve, develop, and change through time. In the context of healing the brain after a traumatic experience, neuroplasticity can help dawn the process of rewiring damaged neural pathways and creating new synaptic connections, restoring function to parts within the brain that were impaired due to traumatic experiences. Regarding psychedelics and neural plasticity, one research article and study found that psychedelic experiences “directly stimulated neurogenesis and increased BDNF mRNA levels up to a month after treatment” (de Vos et al., 2021, p. 1). Neurogenesis “is the process through which neural stem cells (NSCs), or more generally neural

progenitor cells (NPCs), generate new neurons” (Yao et al., 2016, p. 537). Research has posited that neurogenesis within adults occurs in the hippocampus and is associated with “learning and memory, anxiety regulation and feedback of the stress response” (Schoenfeld & Gould, 2012, p. 1). Brain-derived neurotrophic factor (BDNF) is a protein within human beings that is “very important in several physiological processes, such as neuronal development, synaptic plasticity, neurogenesis, neuroprotection, learning, memory, and mood regulation” (Correia, Cardoso, & Vale, 2023, p. 1). Research has deemed that “BDNF acts in the brainstem to enhance parasympathetic activity and reduce resting heart rate” (Wan et al., 2014, p.2). When neurogenesis and BDNF are activated within the brain and body, they increase one’s ability to be resilient in response to stress, increase emotional stability, promote anxiety and mood regulation, and improve one’s cognition regarding learning and memory. Additionally, psychedelics have been shown to promote neuroplasticity by activating a process known as synaptogenesis in the brain where new synaptic connections between neurons are formed, resulting in the “formation of new dendrites” (Sumner & Lukasiewicz, 2023, p. 2). This growth and re-growth of dendrites are relevant to brain development because “brain function relies on precise patterns of synaptic connections between neurons,” and dendrites themselves are branched extensions of a neuron (Kurmangaliyev et al., 2019, p. 1). This growth of dendrites is “crucial for the proper functioning of the central nervous system” and improves one’s ability to regulate mood, enhances cognitive functioning, reduces stress levels, and increases emotional resilience (Hamad et al., 2023, p. 1). Through the presence of neuroplasticity which can rewire damaged neural pathways and create new synaptic connections by increasing BDNF development, stimulating neurogenesis, and initiating the growth of dendrites, an individual would be addressing their wounds from a traumatic experience using a brain and body that is actively undergoing repair and healing.

Neuroplasticity is therefore important to healing trauma because, in the context of therapy, it can increase one's ability to learn new skills and coping mechanisms, healthily regulate emotions, and respond to stress with more resilience and strength, effects of which are akin to the rest and digest state associated with parasympathetic response and the functioning of the vagus nerve.

Coming back to the metaphor presented earlier, through the presence of neuroplasticity evoked by the psychedelic experience, a client would be attempting to address their trauma using a vessel, one's own physical body and brain, that is actively healing and in the process of repair.

Somatic Experiencing (SE) & Bottom-Up Processing

Somatic Experiencing (SE) was developed by Peter Levine, an American biophysicist, and it "is a body-oriented therapeutic approach that focuses on the psychophysiological consequences of the traumatic event" (Kuhfuß et al., 2021, p. 2). Andersen et al. (2020) suggests that a core therapeutic philosophy within SE is to bring awareness to the imprints that traumatic experiences leave on one's physiological body. This is done by helping individuals stay connected to the present moment while exploring pleasant and unpleasant sensations in their bodies associated with the imprints of past traumatic events. In the theoretical framework of Somatic Experiencing, a traumatic event is "not defined by any specific event in life, but it is considered an embodied response that reflects the subject's inability to discharge survival energy (e.g., the subject remains in a freeze response as a state of immobilization or a feeling to be tapped) within a variety of situations in life" (Vagnini et al., 2023, p. 3). According to Briggs, Hayes, & Changaris (2018), SE posits that trauma is stored within one's physiological body and nervous system as a result of an individual experiencing a traumatic life event or experience, and it is theorized that this survival energy stored within the physiological body results in dysfunctions, points of suffering, and mental health ailments or conditions. Therefore, Somatic

Experiencing approaches to healing are designed to help traumatized individuals process and ultimately release the “repressed energy” stored within the physiological body due to a traumatic experience (Vagnini et al., 2023, p. 3).

Within a bottom-up approach in the intervention of Somatic Experiencing, counsellors or therapists are tasked to primarily “help guide the client to increased contact with their bodily sensations” (Winblad, Changaris, & Stein, 2018, p. 3). According to Kuhfuß (2021), within bottom-up processing counsellors or therapists focus on helping the clients cultivate a deeper relationship with their body which includes bringing awareness to sensations, emotions, and feelings. In contrast, the top-down approach includes “mental processing at the level of the cerebral cortex” wherein the counsellor or therapist primarily guides clients to become aware of the cognitive structures within their mind such as thoughts, beliefs, perceptions, and ideas (Taylor et al., 2010, p. 4). In bottom-up processing, a counsellor or therapist encourages clients to bring awareness to “internal sensations, both visceral (interoception) and musculo-skeletal (proprioception and kinesthesia), rather than primarily cognitive or emotional experience” (Payne, Levine, & Crane-Godreau, 2015, p. 1). It is important to note that for clients to effectively engage in bottom-up processing, SE emphasizes the importance that their nervous system is attuned to the parasympathetic response which produces the “rest and digest” state. This is important because it allows clients to process traumatic experiences without being overwhelmed, distressed, or having a hyperarousal response activated. The rationale behind utilizing this bottom-up approach for healing trauma is that SE posits that core aspects of trauma are stored “in systems which emerge from brain structures deep below the cortex” (Winblad, Changaris, & Stein, 2018, p. 3). The reason why this is important is that “trauma can be deeply etched and persistently lodged in the body, compromising emotion regulation and potentially

leading to serious mental conditions” (Grabbe, 2017, p. 77). While it is important for a client to possess a cognitive understanding within their mind as to the nature of their trauma and how it operates to the detriment of their overall health, SE posits that this cognitive understanding may not effectively address the deeply engrained emotional wounds stored in the body’s memory. Therefore, the bottom-up approach is beneficial for individuals with PTSD because it can effectively target the “deep-seated and long-term physiological responses to threats, cues, and triggers” that are stored within the physiological body and nervous system (Grabbe, 2017, p. 83).

MDMA-Assisted Psychotherapy for PTSD (Post-Traumatic Stress Disorder)

The research and literature demonstrate that MDMA-assisted psychotherapy can be integrated with bottom-up processing within SE to be an effective healing modality for helping individuals overcome PTSD. There exist multiple mechanisms of action within MDMA that make it useful when used in conjunction with bottom-up processing in Somatic Experiencing to help heal PTSD. Firstly, when psychedelics are consumed in a controlled, clinical, therapeutic environment, structural changes can occur within the brain which results in the client experiencing forms of consciousness which are primarily rooted in somatic or body awareness (Winkelman, 2017). These consciousness-altering effects of psychedelics within the brain assist a client’s ability to become more connected to and aware of the felt sensations within their body, a core therapeutic component of bottom-up processing within SE. Secondly, MDMA supports bottom-up processing within SE as it can produce effects akin to that of the vagus nerve and parasympathetic nervous system’s rest and digest state, shifting the body into a state of restoration and therefore enhancing one’s ability to regulate physiological sensations, a process which is important in healing PTSD. For example, when MDMA is utilized in a therapeutic,

clinical setting, research has shown it can reduce activity within the regions of the brain associated with “fear-and anxiety-related behaviors, namely the amygdala and insula” (Feduccia & Mithoefer, 2018, p. 1). Within a therapeutic context, these effects of MDMA promote the enhancement of fear memory extinction and helps modulate fear memory reconsolidation (Mitchell et al., 2021). As a result of these processes, one is able to feel safe within their own body, the therapeutic relationship with the counsellor or therapist, and the present physical surroundings, making it more accessible to process emotions and sensations related to traumatic memories. In other words, within a therapeutic context, MDMA can “attenuate the fear response and decrease defensiveness without blocking access to memories or preventing a deep and genuine experience of emotion” (MAPS, 2015, p. 4). This helps individuals confront and process traumatic memories within their body and mind by reducing the intensity of unpleasant, negative sensations evoked by the traumatic memory as it is being recalled. Thirdly, MDMA has been demonstrated to create regional blood flow “decreases in limbic, paralimbic, central frontal and temporal areas and increases in the prefrontal, inferior temporal and cerebellar cortex in human” (Gamma et al., 2000, p. 393). As a result of these physiological changes within the brain, a client can experience “mood enhancement, increased extroversion, slight anxious ego dissolution, and a mild intensification of sensory perception” (Gamma et al., 2000, p. 393). Additionally, MDMA has been shown to activate and stimulate the release of the neurotransmitter known as oxytocin which is associated with emotional bonding with others, heightened feelings of pleasure, and emotional regulation (Wagner et al., 2017). As a result of this release of Oxytocin, according to Kirkpatrick et al. (2014) one can experience an increase in feelings of trust, generosity, and positive emotional states. These two processes directly support bottom-up processing within SE because they can reduce hyperarousal while simultaneously increasing a client’s sense of safety,

enhancing their mood and well-being, and improving their willingness to connect with others and embody vulnerability. As a result, a traumatized individual has a heightened capacity to bring conscious awareness unto adverse or overwhelming sensations, emotions, memories, or feelings within their body while “staying present during these challenging experiences rather than attempting to avoid or escape from them” (MAPS, 2015, p. 15). What this means is that MDMA can help clients become more connected to and aware of sensations, emotions, and feelings within their physical body, traverse their inner psyche, navigate the physical sensations associated with their unresolved trauma, explore “trauma-related events and their effects on relationships,” and unpack traumatic memories without being triggered into a fight or flight response associated with the sympathetic nervous system (MAPS, 2015, p. 33). Lastly, according to Mithoefer (2013), as a consequence of MDMA’s effects on the brain and body, within a clinical, therapeutic environment one can experience an elevation in their mood, enhanced feelings of pleasure, a reduction in pain, a heightened capacity to experience empathy for themselves and others, feelings of safety within oneself and about the therapist or counsellor, and an increase in emotional clarity regarding how their unresolved trauma adversely impacts their life.

Holistic Health Theory

Holistic Health theory is a theoretical framework that is utilized within the practice of psychedelic-assisted therapy. As a theoretical framework, it can be understood and defined as a perspective that “recognizes a person as a whole and acknowledges the interdependence among one's biological, social, psychological, and spiritual aspects” (Zamanzadeh et al., 2015, p. 214). Inner healing intelligence and healing underlying wounds are interventions within the theoretical framework of Holistic Health, and they are both integrated within the practice of psychedelic--

assisted therapy as core foundational components.

Inner Healing Intelligence

Inner healing intelligence can be defined as “a principle of directed living systems to perpetually re-establish equilibrium, to restore and recover towards wholeness and wellbeing” (Vaid & Walker, 2022, p. 2). What this means is that within psychedelic-assisted therapy, a counsellor or therapist who adheres to the inner healing intelligence philosophy utilizes this intervention to help participants “connect with their innate ability to heal and grow, and to empower them to be responsible for their own healing” (Haden, 2023, p. 17). For example, within the practice of MDMA-assisted psychotherapy, a primary mechanism of change is that “the healing process is guided by mechanisms from within the participant’s own psyche and body” (MAPS, 2015, p. 15). The inner healing intelligence intervention believes it is important for the therapist or counsellor to encourage “the patient to look into their inner experience for insight and solutions” and ultimately seek guidance from within rather than from an external source (Gorman et al., 2021, pg. 4). What this looks like in psychedelic-assisted therapy is that within the therapeutic alliance, the counsellor or therapist aims to continuously encourage, foster, and promote self-agency within the client, embodying empathetic presence as they empower the client to become an autonomous agent of positive change. Overall, the inner healing intelligence philosophy believes each client innately possesses wisdom, an ability to change, and power within that knows how to guide one’s body, mind, heart, and spirit toward self-healing, repair, and wholeness.

Healing Underlying Wounds with Psychedelic-Assisted Theory

As a therapeutic modality psychedelic-assisted therapy aims to “address the cause of symptoms rather than merely suppressing them” which is the concept of healing underlying

wounds (Yehuda & Lehrner, 2023, para. 8). This is important because it provides clients with an opportunity to heal the root cause a wound, problem, or mental health condition, rather than spending time and energy unto managing the symptoms, something which is temporary and does not lead to lasting positive change. One primary way psychedelics allow individuals to heal underlying wounds is that the experience itself creates profound consciousness-altering effects within multiple aspects of a human being. According to the holistic health framework, addressing these interconnected aspects of self is crucial for achieving comprehensive healing as it provides clients with a direct opportunity to explore multiple aspects of their psyche, something which can help them more effectively access the root cause of a wound, problem, or mental health condition. In terms of the physical body, according to Carhart-Harris et al. (2012), psychedelic substances can decrease activity in a part of the brain known as the default mode network (DMN). The DMN has been demonstrated to be a region within the brain that is responsible for “self-related cognitive functions like rumination, introspection, self-reflective thoughts, and autobiographical memory” (Soares et al., 2023, p. 1). According to Daws et al. (2022), this reduction in the DMN due to the administration of psychedelic substances is effective for healing because the DMN has been demonstrated to be hyperactive within individuals suffering from depression. This is important to the therapeutic process because the “inhibition of the DMN by psychedelics allows the 'stuck', pathologically self-referential brain to break free and to establish new associations to other brain areas that are more environmentally related” (Schipper et al., 2022, p. 3). Furthermore, psychedelics have been demonstrated to disrupt boundaries within brain regions due to a mechanism of action known as global increase in brain network integration, a process which research has demonstrated “accompanies the antidepressant efficacy of psilocybin therapy” (Daws et al., 2022, p. 848). The underlying

therapeutic mechanism of this process is that psychedelic experiences interrupt the “abnormally rigid patterns of functioning that are often observed in depression” (Psilocybin increases brain network integration in patients with depression, 2023, p. 647). As a result of these processes occurring within the brain, a client can view problems or issues from a newfound perspective, become more aware of negative patterns of rumination, and effectively problem-solve as a result of increased cognitive flexibility. In terms of emotional healing, within the practice of MDMA-assisted psychotherapy for PTSD, research has demonstrated that the therapeutic application of this substance reduces “the fear response to anxiety-provoking stimuli, including previous trauma and traumatic memories” (Krediet et al., 2020, p. 386). What this means is that MDMA allows the client to feel, experience, and process the emotions, thoughts, memories, and sensations associated with past traumatic memories without getting “marred by the presence of old memories, the drive to be right or heard, or distress, pulling the person out of the moment” (Wagner, 2021, p. 3). This altered emotional state can facilitate a therapeutic environment where clients can reframe and integrate past traumatic memories more effectively, allowing clients to connect to deep-seated emotional wounds with heightened clarity and insight. In terms of the spiritual self, according to a double-blind study done in 2011 which examined the impacts of psilocybin, “83% of participants rated the experience as the single most or among the 5 most spiritually significant experiences of their life” (Griffiths et al., 2011, p. 13). Furthermore, according to Griffiths et al. (2018), psilocybin-occasioned mystical-type experiences in combination with meditation and other spiritual practices resulted in beneficial, long-term changes within one’s quality of life and sense of well-being based on several longitudinal measures. For example, this study found that psilocybin in conjunction with spiritual practices produced positive effects “on a wide range of longitudinal measures at 6 months including

interpersonal closeness, gratitude, life meaning/purpose, forgiveness, death transcendence” and daily spiritual encounters (Griffiths et al., 2018, p. 67). This research and literature demonstrate that psychedelics in clinical, therapeutic environments can facilitate healing within multiple aspects of a human being. This is important because within the holistic health framework, tending to the multiple interconnected aspects of oneself is crucial for restoration, healing, and wellness.

Transpersonal Psychology Theory

Transpersonal Psychology theory as a theoretical framework can be understood as a field of psychology that explores how altered states of being, which encompass levels of consciousness that can be defined as spiritual, mystical, or transcendent, impact a human being’s development, sense of self and ego, and overall quality of life or well-being (Kaspro, 1999). It is particularly relevant when discussing end-of-life distress.

For individuals who are in hospice or palliative care, or are diagnosed with life-threatening illnesses, the idea of death and mortality are imminent and impending realities that are likely to unfold soon. As a result, end-of-life distress is a common occurrence within these demographics. An individual would be eligible to enter hospice or palliative care when they are near “the end of life, and when the health care focus is on comfort” rather than on recovery or rehabilitation (Schuyler & Coker, 2014, p. 1). These patients “are often unwell, fatigued, emotionally and psychologically fragile and have multiple co-morbidities” (White & Hardy, 2010, p. 905). Examples of life-threatening illnesses can include, but are not limited to, cancer, heart disease, stroke, or neurological diseases. The points of suffering related to end-of-life distress for patients diagnosed with life-threatening illnesses include the development of “chronic, clinically significant symptoms of depression and anxiety,” discomfort within the

physical body, and feelings of despair, meaninglessness, or hopelessness (Griffiths et al., 2016, p. 1181). End-of-life distress can also lead to demoralization syndrome, where an individual feels a “subjective sense of incompetence - feelings of greater dependency on others or the perception of being a burden” (Kissane et al., 2001, p. 1). This syndrome arises because, as a person's body and mind weaken during the death and dying process, their sense of agency, autonomy, and self-sufficiency can be significantly diminished. This loss can lead to a decrease in self-esteem, worth, and confidence. The “presence of discouragement, despondency, helplessness, loss of meaning in life and failure” is associated with this diagnosis and can thus further end-of-life distress (Rudilla et al., 2016, p. 1).

Psilocybin-Assisted Therapy for End-of-Life Distress

The research has deemed that psilocybin-assisted therapy can help relieve end-of-life distress for those in hospice or palliative care or those with life-threatening illnesses. Psilocybin-assisted therapy is an approach to healing and therapy which notably includes the administration of a consciousness-altering substance, that is psilocybin, within a controlled, clinical, therapeutic environment to help individuals achieve their therapeutic goals. The psychedelic experience induced by psilocybin is a primary mechanism of change or intervention within psilocybin-assisted therapy that can lead to intended and identified therapeutic outcomes for clients suffering from end-of-life distress. For example, the experience of psilocybin within a clinical, therapeutic container has the potential to induce a psychedelic experience that can cause “dramatic changes to one’s perception of time, space, sense of self” and sense of others (Whinkin et al., 2023, p. 51). Within this phenomenon of inducing profound changes in consciousness, the literature states that mystical experiences can occur within patients, which often feature elements such “ego dissolution and universal interconnectedness” (Ko et al., 2022,

p. 1). According to Ko et al. (2022), this phenomenon of a mystical experience involves a temporary loss of the usual boundaries of the self, leading to a sense of merging with the surrounding environment or the cosmos. Regarding therapeutic outcomes for end-of-life distress, psilocybin can allow an individual to experience states of consciousness that are drastically different from their usual mode of functioning, providing one with an opportunity to perceive their existence, sense of self, and suffering from a broader, more encompassing perspective. According to Whinkin et al. (2023), the experience of universal interconnectedness evoked by psilocybin can help reduce feelings of loneliness and existential despair, replacing them with profound feelings of connection and belonging. These changes in consciousness can lead to a significant reduction in end-of-life distress, providing individuals with a newfound sense of purpose and peace as they approach death and dying.

One research study found that psilocybin produced “immediate, substantial, and sustained improvements in anxiety and depression and led to decreases in cancer-related demoralization and hopelessness, improved spiritual wellbeing, and increased quality of life” for patients with life-threatening cancer (Ross et al., 2016, p. 1165). A second study conducted in 2016 found that a single experience induced by psilocybin resulted in significant decreases in anxiety and depression, along with “increases in quality of life and decreases in death anxiety in patients with a life-threatening cancer diagnosis” for at least 6 months post the dosing session (Griffiths et al., 2016, p. 1195). A third study from a phase II clinical trial found that the experience induced by psilocybin improved the quality of life within cancer patients, with half of the participants in the study showing “full remission of depressive symptoms after one week, which was sustained for eight weeks” post the dosing session (Psychedelic psilocybin-assisted therapy, 2024, p. 214). According to de la Salle et al. (2024), a fourth study examining the experiences of individuals

with distress associated with life-threatening illness found that psilocybin-assisted psychotherapy produced significant reductions in anxiety, depression, and existential distress, as well as improvements in life satisfaction and spiritual well-being. From this research study, two “participants found their experience to be the single most spiritually significant experience of their lives, and one found it to be the single most psychologically insightful experience of their life” (de la Salle et al., 2024, p. 9).

Chapter Summary

In this chapter, I discussed how the three primary theoretical frameworks of Neurological Systems Theory, Transpersonal Psychology, and Holistic Health are integrated into the practice of psychedelic-assisted therapy. I introduced the therapeutic concepts of neural plasticity, bottom-up processing as it relates to somatic experiencing, healing underlying wounds, and inner healing intelligence. I provided a brief outline of the history of psychedelics in Western culture and healthcare, outlined the current framework of psychedelic-assisted therapy as it exists in present-day clinical research and practice, and highlighted key ethical considerations in informed consent, power imbalance, and therapeutic touch. In the next chapter, I will present recommendations, limitations of this capstone, provide an overall discussion, and conclude the paper.

Chapter 3: Discussion, Recommendations, and Conclusions

Discussion

Psychedelic-assisted therapy has gained interest within the global healthcare system and culture at large in recent years. The global mental health crisis, the exacerbation of this crisis from the COVID-19 pandemic, and the disparity in the efficacy of traditional methods used to treat mental health issues highlight the need for effective and novel treatments. Research and clinical trials have demonstrated the efficacy and legitimacy of psychedelic-assisted therapy for healing mental health conditions such as depression, end-of-life anxiety, and PTSD (Tupper et al., 2015).

This paper identified three theoretical frameworks within psychedelic-assisted therapy, Neurological Systems, Holistic Health Theory, and Transpersonal Psychology, demonstrating the importance of integrating these psychotherapy practices alongside the administration of consciousness-altering substances to achieve therapeutic goals. Each theoretical framework consisted of interventions which the research deems effective for helping individuals suffering from PTSD, end-of-life anxiety, and abnormalities in brain development due to traumatic experiences. Regarding neurological systems, Knaepen (2020) demonstrated that psychedelics evoke a process known as neuroplasticity, which is the brain's ability to adapt to novel experiences, recover from injuries, and develop by forming new neural connections within the brain. Furthermore, Winkelman (2017) demonstrated how psychedelics can assist bottom-up processing in SE by inducing states of being where individuals can connect to a more primal state of consciousness, which heightens somatic awareness. Regarding holistic health theory, Yehuda and Lehrner (2023) demonstrated the application of holistic health theory in their study, which described how psychedelics can assist in healing underlying wounds, an approach which

focuses on tending to the root cause of issues rather than tending to symptoms. With transpersonal psychology, according to Griffiths et al. (2016), psilocybin was found to be effective in reducing end-of-life anxiety by evoking mystical experiences.

A brief history of psychedelics within Western healthcare and culture was also mentioned. This section provided a cultural, political, social, and medical context of where our world is today in the perception of psychedelics for recreational and therapeutic use. This section highlighted the early research that was undertaken as far back as the 1950s utilizing psychedelics for therapeutic purposes, and discussed the prominent cultural figures and events that took place leading up to the widespread criminalization of psychedelics in 1973. According to Marks and Cohen (2021), this process of criminalization ended up restricting research on the use of psychedelics for healing and contributed to the rise in stigma as psychedelics were declared by the government to be substances holding no medical value.

The current structure in terms of foundational components, which are being implemented into modern-day research and clinical practice, was also defined. The preparatory, dosing, and integration sessions were all discussed, and this paper emphasized that the presence of these components is necessary if the therapeutic goals have the best chance of being achieved.

The topic of ethics was also elaborated upon in the realms of utilizing therapeutic touch, the power imbalance between the healthcare practitioner and client, and informed consent. The importance of ethics in the field of psychedelic-assisted therapy was emphasized because of the changes in consciousness that can occur while under the influence of a psychedelic, such as profound shifts in perception of self, other, time, and space, visual hallucinations, and loss of ego, a client's vulnerability and fragility is increased (Jaster & Gonzalez-Maeso, 2020).

Recommendations

As I have reviewed the literature and research regarding psychedelic-assisted therapy in clinical practice and research, the next section will focus on recommendations for this therapeutic modality moving forward.

One recommendation would be for healthcare institutions to increase the number of longitudinal research studies when exploring the efficacy of psychedelic-assisted therapy. This would benefit psychedelic-assisted treatment in a variety of ways. Longitudinal studies can bring clarity to the long-term effects of psychedelics for the treatment of mental health conditions. It can also help researchers become more aware of the risks and benefits of psychedelics-assisted therapy, something which is essential for establishing ethical guidelines and regulations around the clinical, therapeutic use of psychedelics. Additionally, longitudinal studies can highlight how external factors such as cultural and social environments impact the integration phase of psychedelic-assisted therapy for clients. Furthermore, longitudinal studies would help researchers understand the duration of the therapeutic effects and how long they last post-treatment. This understanding can then help healthcare practitioners and institutions devise evidence-based treatment protocols for clients.

A second recommendation would be for healthcare institutions to provide accessible and informative education-based seminars or webinars for clinicians who are interested in this field of therapeutic practice. The rationale here would be to offer a platform which focuses on evidence-based research about the clinical, therapeutic use of psychedelics for healing, growth, and transformation. These gatherings would aim to help reduce the stigma surrounding psychedelic use. This is important because over the years misinformation about psychedelics has been ingrained into our existing cultural, social, and political systems, resulting in skewed or

tainted views about the nature of these consciousness-altering substances. Evidence-based research can help clarify questions, provide accurate information based on clinical trials, and demonstrate the efficacy of psychedelic-assisted therapy for healthcare practitioners. Furthermore, these webinars or seminars can be a platform to differentiate the recreational versus therapeutic use of psychedelics, bringing more insight into the healing potential of consciousness-altering substances. As part of this recommendation, I have created a presentation to summarize the findings within the capstone research paper. This presentation is specifically designed for healthcare professionals who are interested in learning more about the evidence-based research regarding psychedelic-assisted therapy. To see the slides, please see Appendix A.

Limitation of Capstone

One important limitation of this capstone is acknowledging that most of the research and literature in the field of psychedelic-assisted therapy is novel and recent. Due to the criminalization of psychedelics from government institutions, the research demonstrates the application of these substances for treating mental health conditions has emerged in clinical trials and evidence-based research mainly within the past two decades. What this means is that while early studies demonstrate promising results, there is a limited body of empirical evidence to support the application of psychedelics for therapeutic, healing purposes in clinical research and practice. This relates to important information regarding the long-term efficacy and overall safety profile of psychedelics; therefore, because present-day literature lacks extensive longitudinal data, it makes it challenging to discern whether the therapeutic effects are sustained through time, or if they may lead to unforeseen complications in the future.

A second limitation of this capstone can be found in the existing cultural, social, and political stigma surrounding the use of psychedelics. Due to the criminalization of psychedelics

by government institutions, there has been a widespread belief in our societies today that these compounds are addictive, harmful, dangerous, and thus hold no therapeutic value. This has greatly hindered researcher's ability to access psychedelics for purposes of academic research due to how highly controlled they are within government institutions.

A third limitation of this capstone is that opportunities for healthcare practitioners to undergo an experiential dosing session within psychedelic-assisted therapy training programs are limited due to the criminalization of psychedelics. The importance of this is providing a direct conscious-altering experience for the practitioners who will be offering this treatment modality to clients. This is to ensure that practitioners have a lived memory of the psychedelic experience, an experience they can refer to for insight, wisdom, and guidance when supporting clients.

Conclusion

Psychedelic-assisted therapy is an emerging therapeutic modality within the healthcare system. Based on the research and literature within clinical trials, psychedelics have the potential to offer a novel, effective, evidence-based approach to healing for mental health conditions. The practice of psychedelic-assisted therapy includes core foundational components and theoretical frameworks that must be present if the therapeutic goals have the best chance of being achieved. This includes preparatory, dosing, and integration sessions, along with ensuring that the administration of psychedelics occurs in conjunction with existing psychotherapy practices or interventions. Furthermore, it is the integration of these foundational components and theoretical approaches that distinguish the therapeutic use of psychedelics from recreational use. Overall, while early research is promising and demonstrates efficacy with this therapeutic modality, there does exist a need for there to be more longitudinal studies. Hopefully, with more research, the stigma surrounding psychedelics in our medical, social, political, and cultural systems can shift,

and these substances can be offered in an ethical, responsible, and competent manner to help ease human suffering.

References

- Andersen, T. E., Ellegaard, H., Schiøttz-Christensen, B., Mejldal, A., & Manniche, C. (2020). Somatic Experiencing® for patients with low back pain and comorbid posttraumatic stress symptoms - a randomised controlled trial. *European journal of psychotraumatology*, 11(1), 1797306. <https://doi.org/10.1080/20008198.2020.1797306>
- Argento, E., Petker, T., Vig, J., Robertson, C., Jaeger, A., Neczyk, C., Thielking, P., & Walsh, Z. (2024). "This is you teaching you:" Exploring providers' perspectives on experiential learning and enhancing patient safety and outcomes in ketamine-assisted therapy. *PloS one*, 19(8), e0306381. <https://doi.org/10.1371/journal.pone.0306381>
- Axelrod, C. J., Gordon, S. P., & Carlson, B. A. (2023). Integrating neuroplasticity and evolution. *Current biology : CB*, 33(8), R288–R293. <https://doi.org/10.1016/j.cub.2023.03.002>
- Barber, G. S., & Dike, C. C. (2023). Ethical and Practical Considerations for the Use of Psychedelics in Psychiatry. *Psychiatric services (Washington, D.C.)*, 74(8), 838–846. <https://doi.org/10.1176/appi.ps.20220525>
- Beswerchij, A., Sisti, D. (2022) From Underground to Mainstream: Establishing a Medical Lexicon for Psychedelic Therapy. *Frontiers in Psychiatry*, 13, 870507. <https://doi.org/10.3389/fpsy.2022.870507>
- Beutler, S., Mertens, Y. L., Ladner, L., Schellong, J., Croy, I., & Daniels, J. K. (2022). Trauma-related dissociation and the autonomic nervous system: a systematic literature review of psychophysiological correlates of dissociative experiencing in PTSD patients. *European journal of psychotraumatology*, 13(2), 2132599. <https://doi.org/10.1080/20008066.2022.2132599>
- Bisson, J. I., Cosgrove, S., Lewis, C., & Robert, N. P. (2015). Post-traumatic stress disorder.

- BMJ (Clinical research ed.), 351, h6161. <https://doi.org/10.1136/bmj.h6161>
- Bradberry, M. M., Gukasyan, N., & Raison, C. L. (2022). Toward Risk-Benefit Assessments in Psychedelic- and MDMA-Assisted Therapies. *JAMA psychiatry*, 79(6), 525–527. <https://doi.org/10.1001/jamapsychiatry.2022.0665>
- Breit, S., Kupferberg, A., Rogler, G., & Hasler, G. (2018). Vagus Nerve as Modulator of the Brain-Gut Axis in Psychiatric and Inflammatory Disorders. *Frontiers in psychiatry*, 9, 44. <https://doi.org/10.3389/fpsy.2018.00044>
- Brennan, W., & Belser, A. B. (2022). Models of Psychedelic-Assisted Psychotherapy: A Contemporary Assessment and an Introduction to EMBARK, a Transdiagnostic, Trans-Drug Model. *Frontiers in psychology*, 13, 866018. <https://doi.org/10.3389/fpsyg.2022.86601>
- Briggs, P. C., Hayes, S., & Changaris, M. (2018). Somatic Experiencing® Informed Therapeutic Group for the Care and Treatment of Biopsychosocial Effects upon a Gender Diverse Identity. *Frontiers in psychiatry*, 9, 53. <https://doi.org/10.3389/fpsy.2018.0005>
- Bruna, G., Watts, R., Baker-Jones, M., Murphy-Beiner Ashleigh, Murphy, R., Jonny, M., Allan, B., Erritzoe, D., & Nutt, D. J. (2021). Trial of Psilocybin versus Escitalopram for Depression. *The New England Journal of Medicine*, 384(15), 1402-1411. <https://doi.org/10.1056/NEJMoa2032994>
- Boyd K. K. (1996). Power imbalances and therapy. *Focus (San Francisco, Calif.)*, 11(9), 1–4.
- Canadian Mental Health Association. (June 26, 2024). Post-Traumatic Stress Disorder (PTSD). CHMA. (https://cmha.ca/brochure/post-traumatic-stress-disorder-ptsd/#_edn1)
- Canadian Mental Health Association. (n.d.). Fast facts about mental illness. Canadian Mental Health Association. Retrieved August 7, 2024, from <https://cmha.ca/brochure/fast-facts->

about-mental-illness/

Cammissuli, D. M., & Castelnuovo, G. (2023). Neuroscience-based psychotherapy: A position paper. *Frontiers in psychology*, 14, 1101044. <https://doi.org/10.3389/fpsyg.2023.1101044>

Campo, W. M., & Yali, A. M. (2024). Psychedelic use and psychological flexibility: The role of meaningful intention and decentering. *Journal of Psychedelic Studies* (published online ahead of print 2024). <https://doi.org/10.1556/2054.2024.00350>

Carhart-Harris, R. L., Erritzoe, D., Williams, T., Stone, J. M., Reed, L. J., Colasanti, A., Tyacke, R. J., Leech, R., Malizia, A. L., Murphy, K., Hobden, P., Evans, J., Feilding, A., Wise, R. G., & Nutt, D. J. (2012). Neural correlates of the psychedelic state as determined by fMRI studies with psilocybin. *Proceedings of the National Academy of Sciences of the United States of America*, 109(6), 2138–2143. <https://doi.org/10.1073/pnas.1119598109>

Carhart-Harris, R. L., Kaelen, M., Whalley, M. G., Bolstridge, M., Feilding, A., & Nutt, D. J. (2015). LSD enhances suggestibility in healthy volunteers. *Psychopharmacology*, 232(4), 785-794. <https://doi.org/10.1007/s00213-014-3714-z>

Cascino, G., & Monteleone, A. M. (2024). Early traumatic experiences and the hypothalamus-pituitary-adrenal axis in people with eating disorders: A narrative review.

Psychoneuroendocrinology, 159, 106665.

<https://doi.org/10.1016/j.psyneuen.2023.106665>

Center for Substance Abuse Treatment (US). Trauma-Informed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US). (2014). Understanding the Impact of Trauma. <https://www.ncbi.nlm.nih.gov/books/NBK207191/>

- Ceraso, A. (2008). Entheogens and the Public Mystery: The Rhetoric of R. Gordon Wasson. *Configurations, Suppl.Special Issue: Psychedelic Science*, 16(2), 215-243,297.
<https://www.proquest.com/scholarly-journals/entheogens-public-mystery-rhetoric-r-gordon/docview/217789380/se-2>
- Correia, A. S., Cardoso, A., & Vale, N. (2023). BDNF Unveiled: Exploring Its Role in Major Depression Disorder Serotonergic Imbalance and Associated Stress Conditions. *Pharmaceutics*, 15(8), 2081. <https://doi.org/10.3390/pharmaceutics15082081>
- de Vos, C. M. H., Mason, N. L., & Kuypers, K. P. C. (2021). Psychedelics and Neuroplasticity: A Systematic Review Unraveling the Biological Underpinnings of Psychedelics. *Frontiers in psychiatry*, 12, 724606. <https://doi.org/10.3389/fpsy.2021.724606>
- Danias, G., & Appel, J. (2023). Public Interest in Psilocybin and Psychedelic Therapy in the Context of the COVID-19 Pandemic: Google Trends Analysis. *JMIR formative research*, 7, e43850. <https://doi.org/10.2196/43850>
- Daws, R.E., Timmermann, C., Giribaldi, B. et al. (2022). Increased global integration in the brain after psilocybin therapy for depression. *Nat Med* 28, 844–851
<https://doi.org/10.1038/s41591-022-01744-z>
- Dawood, B., Tomita, A., & Ramlall, S. (2022). 'unheard,' 'uncared for' and 'unsupported': The mental health impact of covid -19 on healthcare workers in KwaZulu-natal province, south africa. *PloS One*, 17(5), e0266008-e0266008.
<https://doi.org/10.1371/journal.pone.0266008>
- de la Salle, S., Kettner, H., Thibault Lévesque, J. et al. (2024). Longitudinal experiences of Canadians receiving compassionate access to psilocybin-assisted psychotherapy. *Sci Rep* 14, 16524. <https://doi.org/10.1038/s41598-024-66817-0>

- Doblin, R. (1991). Pahnke's "Good Friday experiment": A long-term follow-up and methodological critique. *Journal of Transpersonal Psychology*, 23(1), 1–28.
- Dowbiggin, I. (2018). *Managing Madness: Weyburn Mental Hospital and the Transformation of Psychiatric Care in Canada* by Erika Dyck, Alex Deighton (review). *Bulletin of the History of Medicine*, 92(4), 716-717. <https://doi.org/10.1353/bhm.2018.0088>
- Dragioti, E., Li, H., Tsitsas, G., Lee, K. H., Choi, J., Kim, J., Choi, Y. J., Tsamakidis, K., Estradé, A., Agorastos, A., Vancampfort, D., Tsiptsios, D., Thompson, T., Mosina, A., Vakadaris, G., Fusar-Poli, P., Carvalho, A. F., Correll, C. U., Han, Y. J., Park, S., ... Solmi, M. (2022). A large-scale meta-analytic atlas of mental health problems prevalence during the COVID-19 early pandemic. *Journal of medical virology*, 94(5), 1935–1949. <https://doi.org/10.1002/jmv.27549>
- Dyck, E., & Farrell, P. (2018). Psychedelics and psychotherapy in Canada: Humphry Osmond and Aldous Huxley. *History of Psychology*, 21(3), 240-253. <https://doi.org/10.1037/hop0000088>
- Dyck, E. (2006). 'Hitting Highs at Rock Bottom': LSD Treatment for Alcoholism, 1950–1970. *Social History of Medicine*, 19, 313-329.
- Dye, H. (2018). The impact and long-term effects of childhood trauma. *Journal of Human Behavior in the Social Environment*, 28(3), 381–392. <https://doi.org/10.1080/10911359.2018.1435328>
- Feduccia, A. A., & Mithoefer, M. C. (2018). MDMA-assisted psychotherapy for PTSD: Are memory reconsolidation and fear extinction underlying mechanisms?. *Progress in neuro- & biological psychiatry*, 84(Pt A), 221–228. <https://doi.org/10.1016/j.pnpbp.2018.03.003>
- Gamma, A., Buck, A., Berthold, T., Hell, D., & Vollenweider, F. X. (2000). 3,4-

- methylenedioxymethamphetamine (MDMA) modulates cortical and limbic brain activity as measured by [H215O]-PET in healthy humans. *Neuropsychopharmacology*, 23(4), 388-395. [https://doi.org/10.1016/S0893-133X\(00\)00130-5](https://doi.org/10.1016/S0893-133X(00)00130-5)
- Gandy, S., Forstmann, M., Carhart-Harris, R. L., Timmermann, C., Luke, D., & Watts, R. (2020). The potential synergistic effects between psychedelic administration and nature contact for the improvement of mental health. SAGE Publications. <https://doi.org/10.1177/2055102920978123>
- Gorman, I., Nielson, E. M., Molinar, A., Cassidy, K., Sabbagh, J. (2021). Psychedelic Harm Reduction and Integration: A Transtheoretical Model for Clinical Practice. *Frontiers in Psychology* (12). <https://doi.org/10.3389/fpsyg.2021.645246>
- Grabbe, L., Miller-Karas, E. (2017). The Trauma Resiliency Model: A “Bottom-Up” Intervention for Trauma Psychotherapy. *Journal of the American Psychiatric Nurses Association*, 24 (1). <https://doi.org/10.1177/1078390317745133>
- Gren, J., Gorman, I., Ruban, A., Tylš, F., Bhatt, S., & Aixalà, M. (2024). Call for evidence-based psychedelic integration. *Experimental and Clinical Psychopharmacology*, 32(2), 129-135. <https://doi.org/10.1037/pha0000684>
- Griffiths, R. R., Johnson, M. W., Carducci, M. A., Umbricht, A., Richards, W. A., Richards, B. D., Cosimano, M. P., & Klinedinst, M. A. (2016). Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer: A randomized double-blind trial. *Journal of psychopharmacology (Oxford, England)*, 30(12), 1181–1197. <https://doi.org/10.1177/0269881116675513>
- Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., Jesse, R., MacLean, K. A., Barrett, F. S., Cosimano, M. P., & Klinedinst, M. A. (2018). Psilocybin-occasioned

- mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors. *Journal of psychopharmacology* (Oxford, England), 32(1), 49–69. <https://doi.org/10.1177/0269881117731279>
- Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., McCann, U., & Jesse, R. (2011). Psilocybin occasioned mystical-type experiences: immediate and persisting dose-related effects. *Psychopharmacology*, 218(4), 649–665. <https://doi.org/10.1007/s00213-011-2358-5>
- Grob, C. S., Danforth, A. L., Chopra, G. S., Hagerty, M., McKay, C. R., Halberstadt, A. L., & Greer, G. R. (2011). Pilot study of psilocybin treatment for anxiety in patients with advanced-stage cancer. *Archives of general psychiatry*, 68(1), 71–78. <https://doi.org/10.1001/archgenpsychiatry.2010.116>
- Grob, C. S., & Bossis, A. (2017). Humanistic psychology, psychedelics, and the transpersonal vision. *The Journal of Humanistic Psychology*, 57(4), 315-318. <https://doi.org/10.1177/0022167817715960>
- Haden, M. (2023). *Manuel for Psychedelic Guides*. <https://www.amazon.ca/Manual-Psychedelic-Guides-Mark-Haden/dp/B0C8QRM49V>
- Hall, W, J. (n.d.). Timothy Leary. Department of Psychology. <https://psychology.fas.harvard.edu/people/timothy-leary>
- Hall, W. (2022). Why was early therapeutic research on psychedelic drugs abandoned? *Psychological Medicine*, 52(1), 26-31. <https://doi.org/10.1017/S0033291721004207>
- Hamad, M. I. K., Emerald, B. S., Kumar, K. K., Ibrahim, M. F., Ali, B. R., & Bataineh, M. F.

- (2023). Extracellular molecular signals shaping dendrite architecture during brain development. *Frontiers in cell and developmental biology*, 11, 1254589.
<https://doi.org/10.3389/fcell.2023.1254589>
- Hayes, J. A., Gelso, C. J., Goldberg, S., & Kivlighan, D. M. (2018). Countertransference management and effective psychotherapy: Meta-analytic findings. *Psychotherapy*, 55(4), 496-507. <https://doi.org/10.1037/pst0000189>
- Hartogsohn, I. (2016). *Set and setting, psychedelics and the placebo response: An extra-pharmacological perspective on psychopharmacology*. SAGE Publications.
<https://doi.org/10.1177/0269881116677852>
- Heal, D. J., Smith, S. L., Belouin, S. J., & Henningfield, J. E. (2023). Psychedelics: Threshold of a Therapeutic Revolution. *Neuropharmacology*, 236, 109610.
<https://doi.org/10.1016/j.neuropharm.2023.109610>
- Herringa, Ryan, J. (2017). Trauma, PTSD, and the Developing Brain. *Current Psychiatry Reports*, 19(10) <https://doi.org/10.1007/s11920-017-0825-3>
- Humphry Osmond. (2004). *BMJ : British Medical Journal*, 328(7441), 713.
<https://doi.org/10.1136/bmj.328.7441.713>
- Jacobs E. (2023). Transformative experience and informed consent to psychedelic-assisted psychotherapy. *Frontiers in Psychology*, 14, 1108333.
<https://doi.org/10.3389/fpsyg.2023.1108333>
- Jaster, A. M., & González-Maeso, J. (2023). Mechanisms and molecular targets surrounding the potential therapeutic effects of psychedelics. *Molecular Psychiatry*, 28(9), 3595-3612.
<https://doi.org/10.1038/s41380-023-02274-x>
- Johns Hopkins Medicine. (2022, February 15). Psilocybin Treatment for Major Depression

Effective for Up to a Year for Most Patients, Study Shows. Newsroom.

<https://www.hopkinsmedicine.org/news/newsroom/news-releases/psilocybin-treatment->

[for-major-depression-effective-for-up-to-a-year-for-most-patients-study-shows](https://www.hopkinsmedicine.org/news/newsroom/news-releases/psilocybin-treatment-for-major-depression-effective-for-up-to-a-year-for-most-patients-study-shows)

Johnson, M. W., & Griffiths, R. R. (2017). Potential Therapeutic Effects of Psilocybin.

Neurotherapeutics : the journal of the American Society for Experimental

NeuroTherapeutics, 14(3), 734–740. <https://doi.org/10.1007/s13311-017-0542-y>

Johnson, M., Richards, W., & Griffiths, R. (2008). Human hallucinogen research: guidelines for safety. *Journal of psychopharmacology (Oxford, England)*, 22(6), 603–620.

<https://doi.org/10.1177/0269881108093587>

Kaspro, M. C., & Scotton, B. W. (1999). A review of transpersonal theory and its application to the practice of psychotherapy. *The Journal of psychotherapy practice and research*,

8(1), 12–23.

Kirkpatrick, M. G., Lee, R., Wardle, M. C., Jacob, S., & de Wit, H. (2014). Effects of MDMA and Intranasal oxytocin on social and emotional processing. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 39(7), 1654–

1663. <https://doi.org/10.1038/npp.2014.12>

Kissane, D. W., Clarke, D. M., & Street, A. F. (2001). Demoralization syndrome--a relevant psychiatric diagnosis for palliative care. *Journal of Palliative Care*, 17(1), 12-21.

[https://www.proquest.com/scholarly-journals/demoralization-syndrome-relevant-](https://www.proquest.com/scholarly-journals/demoralization-syndrome-relevant-psychiatric/docview/214202878/se-2)

[psychiatric/docview/214202878/se-2](https://www.proquest.com/scholarly-journals/demoralization-syndrome-relevant-psychiatric/docview/214202878/se-2)

Knaepen, K., Goekint, M., Heyman, E. M., & Meeusen, R. (2010). Neuroplasticity - Exercise-Induced Response of Peripheral Brain-Derived Neurotrophic Factor: A Systematic

- Review of Experimental Studies in Human Subjects. *Sports Medicine*, 40(9), 765-801.
<https://doi.org/10.2165/11534530-000000000-00000>
- Knight, S. M. (2022). Holistic care. *Psychiatric Services (Washington, D.C.)*, 73(11), 1302-1303.
<https://doi.org/10.1176/appi.ps.20220164>
- Ko, K., Knight, G., Rucker, J. J., & Cleare, A. J. (2022). Psychedelics, Mystical Experience, and Therapeutic Efficacy: A Systematic Review. *Frontiers in psychiatry*, 13, 917199.
<https://doi.org/10.3389/fpsy.2022.917199>
- Krediet, E., Bostoen, T., Brecksema, J., van Schagen, A., Passie, T., & Vermetten, E. (2020). Reviewing the Potential of Psychedelics for the Treatment of PTSD. *The international journal of neuropsychopharmacology*, 23(6), 385–400.
<https://doi.org/10.1093/ijnp/pyaa018>
- Kuhfuß, M., Maldei, T., Hetmanek, A., & Baumann, N. (2021). Somatic experiencing — effectiveness and key factors of a body-oriented trauma therapy: a scoping literature review. *European journal of psychotraumatology*, 12(1), 1929023.
<https://doi.org/10.1080/20008198.2021.1929023>
- Kurmangaliyev, Y. Z., Yoo, J., LoCascio, S. A., & Zipursky, S. L. (2019). Modular transcriptional programs separately define axon and dendrite connectivity. *eLife*, 8, e50822. <https://doi.org/10.7554/eLife.50822>
- Lieberman, J.A. (2021). Back to the Future — The Therapeutic Potential of Psychedelic Drugs. *The New England journal of medicine*, 384(15), 1460–1461.
<https://doi.org/10.1056/NEJMe2102835>
- MAPS. (2015). A Manual for MDMA-Assisted Psychotherapy in the Treatment of Posttraumatic Stress Disorder. <https://maps.org/research-archive/mdma/MDMA-Assisted->

Psychotherapy-Treatment-Manual-Version7-19Aug15-FINAL.pdf

MAPS. (2021). MAPS Code of Ethics for Psychedelic Psychotherapy. https://maps.org/wp-content/uploads/2021/10/MAPS_Psychedelic_Assisted_Psychotherapy_Code_of_Ethics_V4_7_January_2021_Final.pdf

MAPS Public Benefit Corporation. (2021). A Randomized, Double-Blind, Placebo-Controlled, Multi-Site Phase 3 Study of the Efficacy and Safety of Manualized MDMA-Assisted Psychotherapy for the Treatment of Posttraumatic Stress Disorder of Moderate or Greater Severity. https://maps.org/wp-content/uploads/2022/05/MAPP2-Protocol-A4V1-FINAL_REDACTED_23MAR2021.pdf

Marks, M., Cohen, I.G. (2021). Psychedelic therapy: a roadmap for wider acceptance and utilization. *Nature Med*, (27), 1669–1671. <https://doi.org/10.1038/s41591-021-01530-3>

MacCallum, C. A., Lo, L. A., Pistawka, C. A., & Deol, J. K. (2022). Therapeutic use of psilocybin: Practical considerations for dosing and administration. *Frontiers in psychiatry*, 13, 1040217. <https://doi.org/10.3389/fpsyt.2022.1040217>

McCorry L. K. (2007). Physiology of the autonomic nervous system. *American journal of pharmaceutical education*, 71(4), 78. <https://doi.org/10.5688/aj710478>

Mithoefer M. (2013) A Manual for MDMA-Assisted Psychotherapy in the Treatment of Posttraumatic Stress Disorder; Version 6. Available at: http://www.maps.org/research-____archive/mdma/MDMA-Assisted-Psychotherapy-Treatment-Manual-Version7-19Aug15-FINAL.pdf (accessed 25 May 2017). [PMC free article] [PubMed]

Meikle, S., Carter, O., & Bedi, G. (2024). Psychedelic-assisted psychotherapy, patient vulnerability and abuses of power. *The Australian and New Zealand journal of psychiatry*, 58(2), 104–106. <https://doi.org/10.1177/00048674231200164>

- McGuire, A. L., Cohen, I. G., Sisti, D., Baggott, M., Celidwen, Y., Devenot, N., Gracias, S., Grob, C., Harvey, I., Kiou, B., Marks, M., Mithoefer, M., Nielson, E., Öngür, D., Pallas, A., Peterson, A., Schenberg, E. E., Summergrad, P., Waters, B., . . . Yaden, D. B. (2024). Developing an ethics and policy framework for psychedelic clinical care: A consensus statement. *JAMA Network Open*, 7(6), e2414650-e2414650. <https://doi.org/10.1001/jamanetworkopen.2024.14650>
- Miller, A. E., Mehak, A., Trolio, V., & Racine, S. E. (2022). Impact of the COVID-19 pandemic on the psychological health of individuals with mental health conditions: A mixed methods study. *Journal of clinical psychology*, 78(4), 710–728. <https://doi.org/10.1002/jclp.23250>
- Mitchell, J. M., Bogenschutz, M., Lilienstein, A., Harrison, C., Kleiman, S., Parker-Guilbert, K., Ot'alora G, M., Garas, W., Paleos, C., Gorman, I., Nicholas, C., Mithoefer, M., Carlin, S., Poulter, B., Mithoefer, A., Quevedo, S., Wells, G., Klaire, S. S., van der Kolk, B., Tzarfaty, K., . . . Doblin, R. (2021). MDMA-assisted therapy for severe PTSD: a randomized, double-blind, placebo-controlled phase 3 study. *Nature medicine*, 27(6), 1025–1033. <https://doi.org/10.1038/s41591-021-01336-3>
- Mocanu, V., Mackay, L., Christie, D., & Argento, E. (2022). Safety considerations in the evolving legal landscape of psychedelic-assisted psychotherapy. *Substance abuse treatment, prevention, and policy*, 17(1), 37. <https://doi.org/10.1186/s13011-022-00468-0>
- Muench, J., & Hamer, A. M. (2010). Adverse effects of antipsychotic medications. *American family physician*, 81(5), 617–622.
- Murphy, R., Kettner, H., Zeifman, R., Giribaldi, B., Kartner, L., Martell, J., Read, T., Murphy-Beiner, A., Baker-Jones, M., Nutt, D., Erritzoe, D., Watts, R., & Carhart-Harris, R.

- (2022). Therapeutic Alliance and Rapport Modulate Responses to Psilocybin Assisted Therapy for Depression. *Frontiers in pharmacology*, 12, 788155.
<https://doi.org/10.3389/fphar.2021.788155>
- Montero-Marin, J., Zubiaga, F., Cereceda, M., Piva Demarzo, M. M., Trenc, P., & Garcia-Campayo, J. (2016). Burnout subtypes and absence of self-compassion in primary healthcare professionals: A cross-sectional study. *PloS One*, 11(6), e0157499-e0157499.
<https://doi.org/10.1371/journal.pone.0157499>
- Moreno, J. D. (2016). ACID BROTHERS: Henry Beecher, Timothy Leary, and the psychedelic of the century. *Perspectives in Biology and Medicine*, 59(1), 107-121.
<https://www.proquest.com/scholarly-journals/acid-brothers-henry-beecher-timothy-leary/docview/1812276335/se-2>
- Murphy, R., Kettner, H., Zeifman, R., Giribaldi, B., Kartner, L., Martell, J., Read, T., Murphy-Beiner, A., Baker-Jones, M., Nutt, D., Erritzoe, D., Watts, R., & Carhart-Harris, R. (2022). Therapeutic Alliance and Rapport Modulate Responses to Psilocybin Assisted Therapy for Depression. *Frontiers in pharmacology*, 12, 788155.
<https://doi.org/10.3389/fphar.2021.788155>
- National Institute of Mental Health. (2023, March). Mental Illness.
<https://www.nimh.nih.gov/health/statistics/mental-illness#:~:text=Mental%20illnesses%20are%20common%20in,mild%20to%20moderate%20to%20severe.>
- Nichols, D. E. (2016). Psychedelics. *The American Society for Pharmacology and Experimental Therapeutics*. DOI: <https://doi.org/10.1124/pr.115.011478>
- Noorani, T. (2021). Containment Matters: Set and Setting in Contemporary Psychedelic

Psychiatry. Philosophy, Psychiatry & Psychology : PPP, 28(3), 201-216.

<https://www.proquest.com/scholarly-journals/containment-matters-set-setting-contemporary/docview/2578187763/se-2>

Palitsky, R., Kaplan, D. M., Perna, J., Bosshardt, Z., Maples-Keller, J. L., Levin-Aspenson, H. F., Zarrabi, A. J., Peacock, C., Mletzko, T., Rothbaum, B. O., Raison, C. L., Grant, G. H., & Dunlop, B. W. (2024). A framework for assessment of adverse events occurring in psychedelic-assisted therapies. *Journal of Psychopharmacology (Oxford)*, 38(8), 690-700.

<https://doi.org/10.1177/02698811241265756>

Paul, S, M. Zotter, W, Z. (2024). Finding new and better treatments for psychiatric disorders.

Neuropsychopharmacology. <https://doi.org/10.1038/s41386-023-01690-5>

Payne, P., Levine, P. A., & Crane-Godreau, M. A. (2015). Somatic experiencing: using interoception and proprioception as core elements of trauma therapy. *Frontiers in psychology*, 6, 93. <https://doi.org/10.3389/fpsyg.2015.00093>

Peacock, C., Mascaro, J. S., Brauer, E., Zarrabi, A. J., Dunlop, B. W., Maples-Keller, J. L., Grant, G. H., Raison, C. L., Rab, F., & Palitsky, R. (2024). Spiritual health practitioners' contributions to psychedelic assisted therapy: A qualitative analysis. *PloS one*, 19(1), e0296071. <https://doi.org/10.1371/journal.pone.0296071>

Phelps, J. (2017). Developing guidelines and competencies for the training of psychedelic therapists. *The Journal of Humanistic Psychology*, 57(5), 450-487.

<https://doi.org/10.1177/0022167817711304>

Pitts, E. G., Curry, D. W., Hampshire, K. N., Young, M. B., & Howell, L. L. (2018). (±)-MDMA and its enantiomers: Potential therapeutic advantages of R(-)-MDMA.

Psychopharmacology, 235(2), 377-392. <https://doi.org/10.1007/s00213-017-4812-5>

- Preller, K. H., Vollenweider, F. X. (2018). Phenomenology, Structure, and Dynamic of 'Psychedelic States. *Current topics in behavioral neurosciences*, 36, 221–256.
https://doi.org/10.1007/7854_2016_459
- Psilocybin increases brain network integration in patients with depression. (2022). *Nature medicine*, 28(4), 647–648. <https://doi.org/10.1038/s41591-022-01769-4>
- Psychedelic psilocybin-assisted therapy reduces depressive symptoms in adults with cancer and depression. (2024). *Saudi medical journal*, 45(2), 214–215.
- Purdue University. (n.d.). Fisher, Gary, 1931-2021.
- Reiff, C. M., Richman, E. E., Nemeroff, C. B., Carpenter, L. L., Widge, A. S., Rodriguez, C. I., Kalin, N. H., McDonald, W. M., and the Work Group on Biomarkers and Novel Treatments, a Division of the American Psychiatric Association Council of Research. (2020). Psychedelics and Psychedelic-Assisted Psychotherapy. *The American Journal of Psychiatry*, 77 (5), 391–410. <https://doi.org/10.1176/appi.ajp.2019.19010035>
- Ross, S., Bossis, A., Guss, J., Agin-Liebes, G., Malone, T., Cohen, B., Mennenga, S. E., Belser, A., Kalliontzi, K., Babb, J., Su, Z., Corby, P., & Schmidt, B. L. (2016). Rapid and sustained symptom reduction following psilocybin treatment for anxiety and depression in patients with life-threatening cancer: A randomized controlled trial. *Journal of Psychopharmacology*, 30(12), 1165-1180. <https://doi.org/10.1177/0269881116675512>
- Rudilla, D., Barreto, P., Oliver, A., & Galiana, L. (2016). Demoralization syndrome as an alternative diagnostic to depressed mood in palliative patients. *Psicooncologia*, 12(2-3), 315-334. https://doi.org/10.5209/rev_PSIC.2015.v12.n2-3.51012
- Schipper, S., Nigam, K., Piechotta, V., Ljuslin, M., Beaussant, Y., Schwarzer, G., & Boehlke, C. (2022). Psychedelic/entactogen-assisted therapy for treatment of anxiety, depression and

- distress in adult palliative care. *Cochrane Database of Systematic Reviews*, 2022 (11).
<https://doi.org/10.1002/14651858.CD015383>
- Schoenfeld, T. J., & Gould, E. (2012). Stress, stress hormones, and adult neurogenesis. *Experimental neurology*, 233(1), 12–21. <https://doi.org/10.1016/j.expneurol.2011.01.00>
- Schuyler, D., & Coker, W. (2014). Hospice. *Primary Care Companion for CNS Disorders*, 16(4). <https://doi.org/10.4088/PCC.14f01688>
- Sessa, B. (2018). The 21st century psychedelic renaissance: heroic steps forward on the back of an elephant. *Psychopharmacology*, 235(2), 551-560. <https://doi.org/10.1007/s00213-017-4713-7>
- Shahi, U. B., Acharya, A., Timalina, S., Gautam, A., Swain, K. C., & Panthi, S. (2023). Study of adverse drug reaction of anti-depressants in adult patients: A nepalese perspective. *Psychiatry International*, 4(3), 220-234. <https://doi.org/10.3390/psychiatryint4030022>
- Sherin, J. E., & Nemeroff, C. B. (2011). Post-traumatic stress disorder: the neurobiological impact of psychological trauma. *Dialogues in clinical neuroscience*, 13(3), 263–278.
<https://doi.org/10.31887/DCNS.2011.13.2/jshein>
- Siciliano, R. E., Anderson, A. S., & Compas, B. E. (2022). Autonomic nervous system correlates of posttraumatic stress symptoms in youth: Meta-analysis and qualitative review. *Clinical psychology review*, 92, 102125. <https://doi.org/10.1016/j.cpr.2022.102125>
- Smith, W. R., Sisti, D. (2021). Ethics and ego dissolution: the case of psilocybin. *Journal of Medical Ethics*, 47(12), 807-814. <https://jme.bmj.com/content/47/12/807>
- Smith, C. (2025). Psychedelics, psychedelic-assisted therapy and employees' wellbeing. *Journal of Management Inquiry*, 34(1), 121-125. <https://doi.org/10.1177/10564926241267208>
- Soares, C., Gonzalo, G., Castelhana, J., & Castelo-Branco, M. (2023). The relationship between

- the default mode network and the theory of mind network as revealed by psychedelics – A meta-analysis. *Neuroscience and biobehavioral reviews*, 152, 105325.
<https://doi.org/10.1016/j.neubiorev.2023.105325>
- Stein, C. A., Penn, A., Van Hope, S., Dorsen, C. G., & Mangini, M. (2022). The Pharmacology and Clinical Applications of Psychedelic Medicines Within Midwifery Practice. *Journal of midwifery & women's health*, 67(3), 373–383. <https://doi.org/10.1111/jmwh.13371>
- Stubbe D. E. (2018). The Therapeutic Alliance: The Fundamental Element of Psychotherapy. *Focus (American Psychiatric Publishing)*, 16(4), 402–403.
<https://doi.org/10.1176/appi.focus.20180022>
- Sumner, R., & Lukasiewicz, K. (2023). Psychedelics and neural plasticity. *BMC neuroscience*, 24(1), 35. <https://doi.org/10.1186/s12868-023-00809-0>
- Taylor, A. G., Goehler, L. E., Galper, D. I., Innes, K. E., & Bourguignon, C. (2010). Top-down and bottom-up mechanisms in mind-body medicine: development of an integrative framework for psychophysiological research. *Explore (New York, N.Y.)*, 6(1), 29–41.
<https://doi.org/10.1016/j.explore.2009.10.004>
- Tindle, J., & Tadi, P. (2022). Neuroanatomy, Parasympathetic Nervous System. In StatPearls. StatPearls Publishing.
- Thal, S. B., Wieberneit, M., Sharbanee, J. M., Skeffington, P. M., Baker, P., Bruno, R., Wenge, T., & Bright, S. J. (2022). Therapeutic (Sub)stance: Current practice and therapeutic conduct in preparatory sessions in substance-assisted psychotherapy-A systematized review. *Journal of Psychopharmacology (Oxford, England)*, 36(11), 1191–1207. <https://doi.org/10.1177/02698811221127954>
- Theodoratou, M., Kougioumtzis, G. A., Yotsidi, V., Sofologi, M., Katsarou, D., & Megari, K.

- (2023). Neuropsychological Consequences of Massive Trauma: Implications and Clinical Interventions. *Medicina (Kaunas, Lithuania)*, 59(12), 2128.
<https://doi.org/10.3390/medicina59122128>
- Vaid, G., & Walker, B. (2022). Psychedelic Psychotherapy: Building Wholeness Through Connection. *Global advances in health and medicine*, 11, 2164957X221081113.
<https://doi.org/10.1177/2164957X221081113>
- Vagnini, D., Grassi, M. M., & Saita, E. (2023). Evaluating Somatic Experiencing® to Heal Cancer Trauma: First Evidence with Breast Cancer Survivors. *International journal of environmental research and public health*, 20(14), 6412.
<https://doi.org/10.3390/ijerph20146412>
- Wan, R., Weigand, L. A., Bateman, R., Griffioen, K., Mendelowitz, D., & Mattson, M. P. (2014). Evidence that BDNF regulates heart rate by a mechanism involving increased brainstem parasympathetic neuron excitability. *Journal of neurochemistry*, 129(4), 573–580. <https://doi.org/10.1111/jnc.12656>
- Wagner A. C. (2021). Couple Therapy With MDMA-Proposed Pathways of Action. *Frontiers in psychology*, 12, 733456. <https://doi.org/10.3389/fpsyg.2021.733456>
- Wagner, M. T., Mithoefer, M. C., Mithoefer, A. T., MacAulay, R. K., Jerome, L., Yazar-Klosinski, B., & Doblin, R. (2017). Therapeutic effect of increased openness: Investigating mechanism of action in MDMA-assisted psychotherapy. *Journal of psychopharmacology (Oxford, England)*, 31(8), 967–974.
<https://doi.org/10.1177/0269881117711712>
- Winblad, N. E., Changaris, M., & Stein, P. K. (2018). Effect of Somatic Experiencing

- Resiliency-Based Trauma Treatment Training on Quality of Life and Psychological Health as Potential Markers of Resilience in Treating Professionals. *Frontiers in neuroscience*, 12, 70. <https://doi.org/10.3389/fnins.2018.00070>
- Winkelman M. J. (2017). The Mechanisms of Psychedelic Visionary Experiences: Hypotheses from Evolutionary Psychology. *Frontiers in neuroscience*, 11, 539. <https://doi.org/10.3389/fnins.2017.00539>
- Winkelman M. J. (2021). The Evolved Psychology of Psychedelic Set and Setting: Inferences Regarding the Roles of Shamanism and Entheogenic Ecopsychology. *Frontiers in pharmacology*, 12, 619890. <https://doi.org/10.3389/fphar.2021.619890>
- Whinkin, E., Opalka, M., Watters, C., Jaffe, A., & Aggarwal, S. (2023). Psilocybin in Palliative Care: An Update. *Current geriatrics reports*, 12(2), 50–59. <https://doi.org/10.1007/s13670-023-00383-7>
- White, C., & Hardy, J. (2010). What do palliative care patients and their relatives think about research in palliative care?--a systematic review. *Supportive Care in Cancer*, 18(8), 905-11. <https://doi.org/10.1007/s00520-009-0724-1>
- Wolfson, E. (2023). Psychedelic-supportive psychotherapy: A psychotherapeutic model for, before and beyond the medicine experience. *Journal of Psychedelic Studies*, 6(3), 191-202. <https://doi.org/10.1556/2054.2022.00192>
- World Health Organization (WHO). (2022, June 8). Mental disorders. <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>.
- World Health Organization (WHO). (2023, March 23). Depressive disorder (depression). <https://www.who.int/news-room/fact-sheets/detail/depression>.
- World Health Organization (WHO). (2023, August 28). Suicide. <https://www.who.int/news->

room/fact-sheets/detail/suicide.

Yao, B., Christian, K. M., He, C., Jin, P., Ming, G., & Song, H. (2016). Epigenetic mechanisms in neurogenesis. *Nature Reviews. Neuroscience*, 17(9), 537-549.

Yavi, M., Lee, H., Henter, I. D., Park, L. T., & Zarate, C. A., Jr (2022). Ketamine treatment for depression: a review. *Discover mental health*, 2(1), 9. <https://doi.org/10.1007/s44192-022-00012-3>

Yehuda R, Lehrner A. Psychedelic Therapy—A New Paradigm of Care for Mental Health. *JAMA*. 2023;330(9):813–814. doi:10.1001/jama.2023.12900

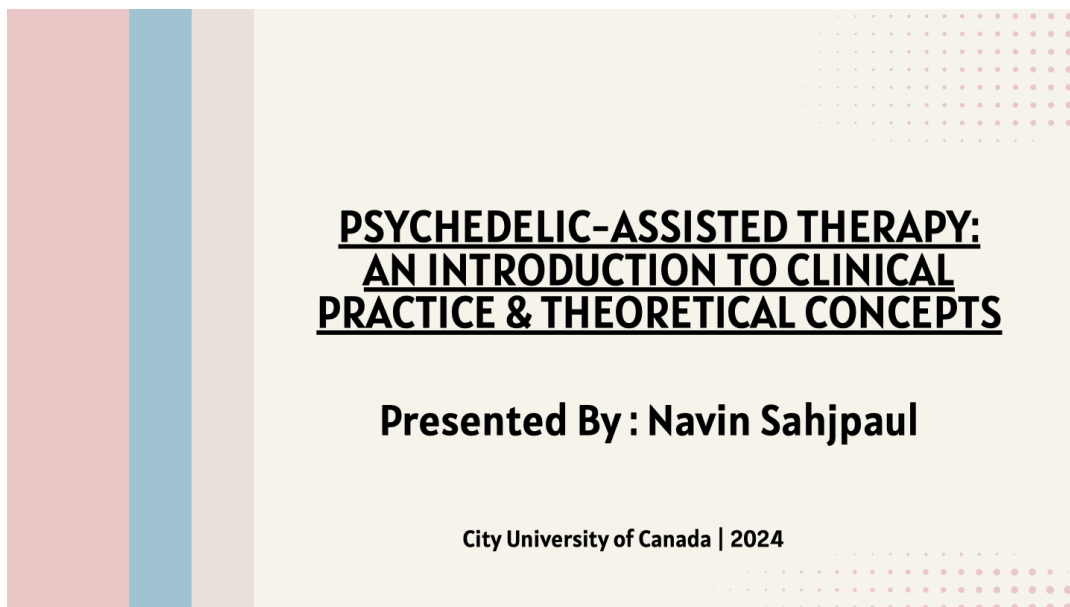
Zamanzadeh, V., Jasemi, M., Valizadeh, L., Keogh, B., & Taleghani, F. (2015). Effective factors in providing holistic care: a qualitative study. *Indian journal of palliative care*, 21(2), 214–224. <https://doi.org/10.4103/0973-1075.156506>

Zannese, K. (2022). High time? Psychedelics on cannabis-like fast track to legalization. *Canadian Medical Association Journal*, 194(49) E1695-E1696. DOI:10.1503/cmaj.1096029

Zarate, C. A., Jr, Singh, J. B., Carlson, P. J., Brutsche, N. E., Ameli, R., Luckenbaugh, D. A., Charney, D. S., & Manji, H. K. (2006). A randomized trial of an N-methyl-D-aspartate antagonist in treatment-resistant major depression. *Archives of general psychiatry*, 63(8), 856–864. <https://doi.org/10.1001/archpsyc.63.8.856>

Appendix A

This appendix includes a series of presentation slides that summarize the main concepts and findings of this capstone paper, *Psychedelic-Assisted Therapy: An Introduction to Clinical Practice & Theoretical Concepts*. Each slide represents a different section of the paper. The slides are accompanied by commentary by the presenter, elaborating upon the research, literature and analysis covered within this capstone.



CONTEXT OF TOPIC

1

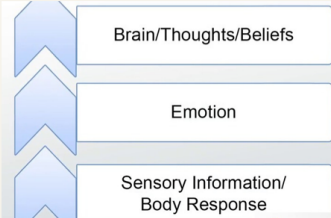
- The Emerging Psychedelic Renaissance
- Global Mental Health Crisis
- COVID-19 Pandemic Aftermath
- Lack of Efficacy with Existing Treatments

Purpose of paper

- Provide an introductory guide to PAT for clinicians
 - Core Foundational Therapeutic Components
 - Ethical Considerations
 - Theoretical Frameworks & Interventions
- Reduce stigma surrounding psychedelics

MDMA-Assisted Psychotherapy for PTSD

2

- PTSD Definition & Prevalence
- Somatic Experiencing & Bottom Up Processing
 
- MDMA-Assisted Therapy for PTSD
 - Physiological and Emotional effects conducive for healing

NEUROPLASTICITY & PSYCHEDELICS

3

- **Trauma's impact on Brain Development**
 - **Effect on HPA-Axis**
 - **Adverse effects on Quality of Life**
- **Neuroplasticity and healing**
 - **Definition**
 - **Forms to neural connections**
 - **Repairs damaged neurons**



NEUROPLASTICITY & PSYCHEDELICS

4

**Brain before
neuroplasticity**



**Mechanism of
Action/Change**



**Agency/Autonomy to
choose a new path**



HOLISTIC HEALTH THEORY

5



- Inner Healing Intelligence
 - Agency and autonomy
- Healing Underlying Wounds
 - Tending to the root, rather than managing symptoms

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TRANSPERSONAL PSYCHOLOGY

6

End of life Distress



Mystical Experiences and Psychedelics



Research and Literature of Psilocybin for EOL Distress

- Ross et al., 2016 - Psilocybin for Anxiety/Depression in Cancer Patients
- Griffiths et al., 2016 - Psilocybin for Anxiety/Depression in Cancer Patients
- de la Salle et al., 2014 - Psilocybin for Patients with Life Threatening Illness

HISTORY OF PSYCHEDELICS

7

- Gordon Wasson
- Timothy Leary and the 1960's Counter Culture
- Genuine concern over well-being of citizens
- Criminalization in 1973



PROCESS

8

● Preparatory

- Assessment
- Set
- Intention

● Integration

- Resourcing
- Following up
- Meaning-making

● Dosing

- Setting
- Dose
- Role of Counsellor or Therapist



ETHICAL CONSIDERATION

9

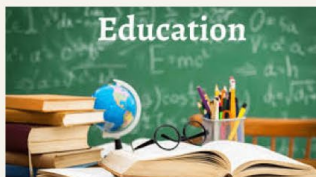
- **Power Imbalance**
 - **Therapeutic alliance**
- **Informed Consent**
 - **Consciousness Altering Effects**
- **Use of Therapeutic Touch**

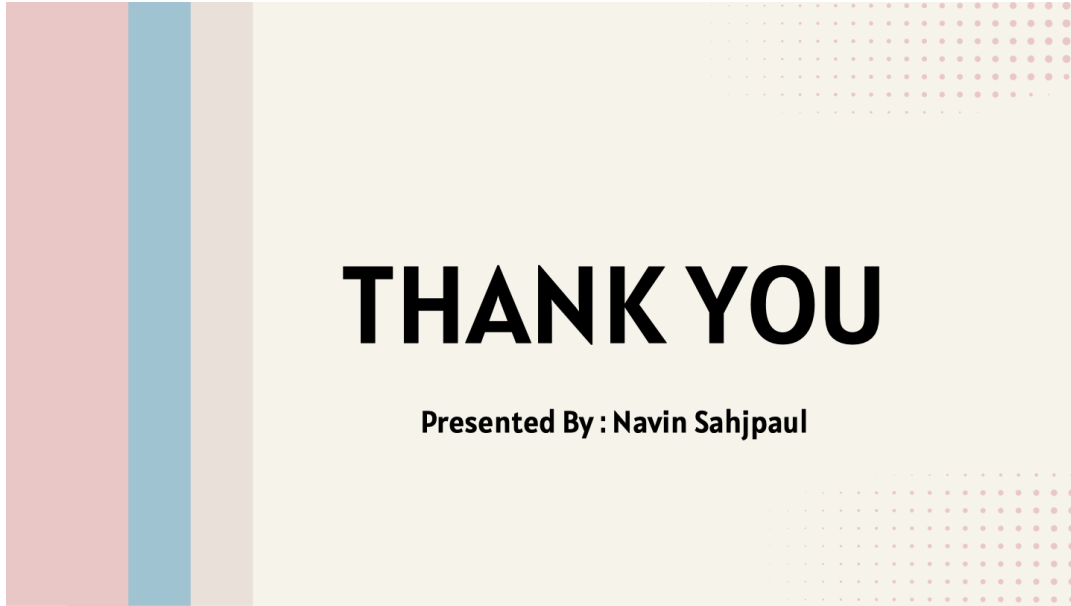


DISCUSSION, RECOMMENDATIONS, LIMITATIONS, AND CONCLUSIONS

10

Longitudinal Studies





THANK YOU

Presented By : Navin Sahjpaul