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Can We Learn to Heal Ourselves? The Promise, Perils, and Insights Behind Medicalizing Psychedelics

Brielle Seidel
Syracuse University

Can We Learn to Heal Ourselves?
The Promise, Perils, and Insights Behind Medicalizing Psychedelics

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Brielle Seidel

Candidate for Bachelor of Science in Public Health
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Thesis Advisor: _____
Dessa Bergen-Cico, Ph.D., Professor
of Public Health, Coordinator of
Addiction Studies Program

Thesis Reader: _____
Dr. Max Malikow, Professor

Honors Director: _____
Dr. Danielle Smith, Director

Abstract

Before they were criminalized, psychedelics were once used in mental health research. Today, they are making a resurgence in the medical field following a long hiatus. Current clinical trials for psychedelic-assisted therapy reveal their potential to treat a variety of mental health conditions. While this novel treatment provides promise, there are many implications to consider regarding its integration into the Western medical model. This paper includes a literature review of the past and current use of psychedelics for healing purposes and mental health research. The literature review provides background for understanding the resurgence of psychedelics within a larger context. Additionally, an analysis of the promise and perils of medicalizing psychedelics was conducted, which determined that psychedelic-assisted therapy will likely be inaccessible for several years. With the United States currently in a mental health crisis, this paper combines psychological, neuroscientific, psychedelic, and contemplative research to understand how psychedelics function to improve mental health. It also provides evidence-based alternatives to psychedelic-assisted therapy that the general population can benefit from. It appears that psychedelics help form new neural connections and expedite the process of deep introspection; however, other practices can achieve similar results. This paper seeks to provide context for the emerging field of psychedelic medicine and demonstrate its potential applicability to various methods of healing.

Executive Summary

The aims of this paper are to explore the potential of psychedelic drugs in therapeutic environments to promote psychological and spiritual growth through the processes of intrapersonal insight and neuroplasticity. Both psychological theory and neuroscience converge in recognizing the promise of psychedelic drugs in improving mental health and quality of life. In this paper, I will present a.) a historical overview of psychedelic usage and research; b.) legal changes from the 1960s to the present day; c.) the landscape of the current psychedelic renaissance; d.) the promise and perils of medicalizing psychedelics in our modern capitalist society; and e.) psychological and neuroscientific theories that suggest accessible ways individuals and society may benefit from psychedelic research and use. I will address each one of these items in turn.

For millennia, psychedelics have had a rich history of use in indigenous populations for cultural and spiritual purposes. However, it was only in the middle of the 20th century that lysergic acid diethylamide (LSD) was synthesized, and psilocybin-containing mushrooms were discovered by Westerners. Upon these discoveries, the academic field began to conduct research on the therapeutic benefits of psychedelics. Funded by the government, extensive research and psychedelic-assisted psychotherapy sessions were conducted.

However, psychedelic use for recreational purposes infiltrated mainstream society and became associated with the counterculture movement. When the “War on Drugs” policies were enacted, psychedelics, including psilocybin, LSD, MDMA, and marijuana, were classified as Schedule 1 drugs. With this classification, funding for research projects dried up, and psychedelic therapy and recreational use went virtually ‘underground’.

After a 50-year hiatus, psychedelic research is resurging, with dozens of completed clinical trials and more ongoing, demonstrating the promise of its therapeutic use. Currently, MDMA and psilocybin are expected to gain FDA approval for psychedelic-assisted therapy for PTSD and depression, respectively, within the next 24 months. Additionally, states like Colorado and Oregon have already passed laws legalizing guided psilocybin use, with 11 other states introducing psychedelic-reform policies on their legislative agendas for 2023. While this psychedelic renaissance is exciting to many, the implications of integrating psychedelics into the United States' medical model may make treatment inaccessible.

Inaccessibility to psychedelic-assisted therapy threatens to be the biggest peril regarding its integration into the Western medical model. The lengthy duration of psychedelic sessions, the cost of employing trained professionals, as well as the cost of the drug itself—with pharmaceutical companies interested in making a profit—drive up the cost of treatment. Insurance coverage regarding this treatment remains unknown, but without coverage, financial barriers remain. Additionally, this approach to mental health treatment requires a new field of trained practitioners. With the United States in both a mental health crisis and a shortage of mental health care practitioners, it is unlikely that there will be enough trained professionals to meet the demand for treatment in the coming years. Further, implications regarding the lengthy FDA approval process and lack of generalizability in psychedelic clinical trials contribute to the conclusion that psychedelic-assisted therapy will be inaccessible for most of the population who may benefit for several years.

While psychedelic-assisted therapy may be inaccessible in the short term, psychological and neuroscientific research indicates there are ways the population can begin to experience the benefits of this treatment in the meantime. Transpersonal psychology, a psychological theory

borne out of psychedelic research, suggests that the psychedelic experience allows people to have profound experiences of themselves under psychedelic influence. This theory proposes that psychedelics provide a way to know oneself (intrapersonal insight) and reveal the innate capacity of humans to heal themselves. Similarly, neuroscientific research reveals the brain's ability to strengthen and form new neural connections in response to learning (neuroplasticity) under both psychedelics and contemplative practices such as meditation and mindfulness. Research also indicates the area of the brain most active when thinking about the 'self' is quieted in both practices. Both theory and research suggest the journey to knowing oneself, which may be done through many means, including meditation, breathwork, intentional plant usage, and other introspection and compassion-enhancing practices, may bring about the same benefits noted in psychedelic clinical trials.

To complete this paper, I conducted a literature review on past and current psychedelic research and compared the promise and perils of psychedelic treatment as they exist in the literature. Additionally, because psychedelic-assisted therapy will likely be inaccessible for several years, by bridging conclusions between psychological theory and neuroscientific and psychedelic research, I will address gaps in the literature by proposing evidence-based alternative options to psychedelic-assisted therapy. This work will positively contribute to the existing literature by bridging disciplines, increasing awareness of psychedelic therapy and its alternatives, and hopefully prompting thought-provoking questions about how the space can improve.

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Preface

The purpose of this work is to recontextualize psychedelics as they gain popularity within our modern society. While many see the exciting headlines indicating the promise of this breakthrough therapy, most are not aware of the deep and persistent struggle it took to get to this place. It has long been known, even within the United States, that psychedelics have the profound power to heal. However, its perception-altering powers questioned and threatened the accepted way of life and political agenda of the 1960s/70s. Instead of addressing root-problem issues facing society such as racial inequality and growing opposition to the Vietnam War, the government used psychedelics as a scapegoat, employing inaccurate scare tactics to position drugs as the nation's public enemy, crush opposition, and erase the value of these substances from the mind of the nation. People have suffered unnecessarily for long enough. Particularly today, exposure to intense turmoil, polarization, tension, existentialism, climate crises, injustices, and pain is constant and chronic. The mental health crisis reflects the collective suffering of our modern society. It is time to let the medicine do its work. By allowing us to reconnect to ourselves, each other, and our world, perhaps we can conceptualize a better future for us all.

This work is the culmination of my academic, personal, and spiritual growth throughout my four years at Syracuse University. I entered as a student on autopilot, pursuing a degree because of societal standards and a requirement for attending medical school. The novelty of the coming years shook my worldview in ways unimaginable. From experiencing the entirety of a global pandemic, to experiencing an entirely new culture through integrating into a Swiss family during a semester abroad, to discovering the profound potential of psychedelics to heal, and much more during my undergraduate years, I was forced to reevaluate my learned assumptions and limited perceptions about the world. In doing so, I came to know myself, my education, and my purpose in a new light.

This paper was born out of my own spiritual quest for love, happiness, and truth, and my desire to share this knowledge with others. I was at first infatuated with the psychedelic experience itself. Personal interest in its therapeutic power led me to uncover past psychedelic research history and the perspectives of pioneers in this field. I then came to understand the difficulties of integrating psychedelics into today's society, leading to the conclusion that these profound substances will not soon be accessible for so many who would benefit. Finally, I learned that psychedelic use does not equate to healing; the experience must be endured and understood within the greater context of one's life to receive true benefits. In exploring how to integrate the psychedelic experience into my everyday life and in investigating how friends, family, and others can benefit from this knowledge, I discovered various methods that promote the healing qualities of introspection, compassion, and connection, much like psychedelics.

Interestingly, these truths have always been known. They have been kept in indigenous wisdom, Eastern traditions, and other ancient mystic and spiritual traditions. The colonial mindset of the West dismisses spiritual wisdom in favor of a material (thus 'superior') understanding of the world. Ultimately, one can see this limited view leading to its demise, with the tremendous suffering of the population as a direct indicator. Now, we must look back on these wisdom keepers with gratitude, appreciation, and respect. Their knowledge will guide us as we learn to act forward in creating internal and external worlds led by love instead of fear.

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I would like to express special thanks to my incredible friends and fellow truth seekers, particularly Sara Coutts, Alex Lasin, and Meg Mallozzi, who have traversed many planes of existence with me in pursuit of this universal knowledge. The power of spiritual community is one of the greatest gifts to come from this life-long exploration, and for it, I will be forever grateful. I would also like to thank my family, who, despite being initially skeptical of the topic, loved, trusted, and supported my passion for this project. The tremendous support from this university, faculty, friends, and loved ones inspires me to continue pursuing this line of work in my professional career, where I hope to work with psychedelics in psychiatry. Thank you to everyone who believed in me and encouraged me to believe in myself. This paper would not be possible without you.

Finally, this paper is dedicated to Luann Rogers, a victim of Pan Am Flight 103 and a fellow truth seeker herself. I had the honor of representing Luann as a 2022–2023 Syracuse University Remembrance Scholar and I will continue to “look back” and “act forward” in her honor for the rest of my life. Her spirit is infused throughout this paper.

Introduction

The therapeutic use of psychedelic substances is gaining traction in the field of mental health as clinical trials for psychedelic-assisted therapy continue to produce positive results. First, it is important to describe the term "psychedelic". The term "psychedelic" broadly describes substances with the capability to produce "mind-manifesting" effects (Carhart-Harris & Goodwin, 2017). These psychoactive substances can also induce hallucinogenic experiences or altered states of consciousness, affecting a person's perception and mood. The subjective experience of psychedelics may involve open or closed-eyed imagery, emotional effects, and/or the ability to retrieve previously unconscious material, which is beneficial in a therapeutic setting (Penn et al., 2021).

There are both naturally occurring plant-based psychedelics and synthesized compounds. Naturally occurring psychedelic substances have been used for their healing and spiritual potential for thousands of years by indigenous cultures, only recently becoming a phenomenon in Western society. Examples of natural, plant- and fungi-based psychedelics are psilocybin (psychoactive mushrooms), ayahuasca, mescaline, and iboga (Penn et al., 2021). The most notable synthetic psychedelics include ketamine, lysergic acid diethylamide (LSD), and 3,4-Methylenedioxy methamphetamine (MDMA). The mechanisms of psychedelics vary widely, primarily acting on the serotonergic pathway and specifically on the 5-HT2A, or serotonin 2A, receptor (Nutt & Carhart-Harris, 2021).

Psychedelics are powerful substances with the ability to produce empathy-expanding, perception-altering, and often life-changing experiences. Such experiences can be confusing and challenging, but profoundly helpful if used in a therapeutic setting guided by practitioners who have expertise in navigating this uncharted territory. Their effects cannot be undermined, and

they induced widespread change in the culture which they were introduced. Access to psychedelics has been limited for half a century, largely due to a propagated false narrative and a lack of knowledge about the risks and benefits of this diverse group of psychoactive substances.

Today, hundreds of clinical trials are researching the various therapeutic benefits of these substances. Still, questions remain regarding the future of this treatment in society. To understand the landscape of the space, this paper will highlight the promise and perils of medicalizing psychedelics in modern Western society. Additionally, it will discuss what subjective and neuroscientific research reveals about its healing potential and how that knowledge can benefit the population without current access to psychedelic-assisted therapy.

Research Methodology

This is a literature review of the existing research on psychedelic drugs, covering their historical origins, Westernized use, present-day therapeutic application, and current renaissance. This is a cross-disciplinary approach to this complex and intriguing topic, which spans indigenous botanical historical use, socio-political popularization, and neuroscientific psychopharmacology related to psychedelics.

Information and inspiration were sourced from the book *How to Change Your Mind: What the new science of psychedelics teaches us about consciousness, dying, addiction, depression, and transcendence*. Academic literature was acquired through online journals, publications, and printed books, most frequently obtained through the Syracuse University Summon Advanced Search. Information was sourced from online journals and publications, including but not limited to JSTOR, PubMed, NCBI, and Google Scholar. Searches included keywords “psychedelic medicine”, “psychedelic research”, “MDMA”, “LSD”, “psilocybin”,

"psychedelic history", "clinical trials", "cost-analysis", "mental health", "practitioner shortage", "neuroplasticity", "transpersonal psychology", "meditation", "mindfulness", "holotropic breathwork", "wellbeing", "resilience", "mystical experience", "Buddhist psychology", and more. Additionally, information was sourced directly from the websites of credible organizations and academic institutions, including the National Alliance on Mental Illness, the Multidisciplinary Association of Psychedelic Studies, and the Center for Psychedelic and Consciousness Research at Johns Hopkins University. Finally, first-person accounts were collected through various podcast interviews, namely from the audio podcast *Psychedelics Today*.

Literature Review - a Timeline

The Indigenous History of Psychedelic Use

The practice of utilizing psychoactive substances for their healing potential dates back thousands of years. Globally, various indigenous populations have been incorporating psychoactive plants and fungi in ritual and ceremonial settings for medicinal, spiritual, and community bonding purposes (De Orellana et al., 2017). Evidence of use is found through continued tradition and archeological discoveries of psychoactive substance residues, symbols, and art depicting sacred plant usage (George et al., 2022). Traditional use of these substances survives today in many indigenous cultures, despite historical attempts by colonizing groups to restrict use (Luna, 2011). For example, Ayahuasca, whose main active ingredient is the potent chemical DMT, is native to South America and was mainly utilized in ceremonies by indigenous groups of the Upper Amazon to enhance spiritual knowledge or to undergo healing journeys (Luna, 2011). In another example, the San Pedro cactus, whose main active ingredient is

mescaline, is native to the Andes Mountains of Peru and Ecuador and is used for medicine and spirituality (Davis, 1983). Evidence of indigenous use of the San Pedro cactus in northern Peru dates to 1300 BCE. Peyote, whose main active ingredient is also mescaline, is native to North and Central America and is used by various tribes in the United States and Mexico for religious, ceremonial, and healing purposes (De Orellana et al., 2017). Psilocybin-containing mushrooms have indigenous roots in Mexico, with many Mesoamerican groups using sacred mushrooms in shamanistic practices as early as 2500 BCE (De Orellana et al., 2017). Moving away from the Americas, the Iboga plant, whose main psychoactive ingredient is ibogaine, is native to West Africa and the Pygmy group, where it is used to connect with ancestors for healing and spiritual purposes (Samorini, 1995). While not an exhaustive list, these plants and fungi serve as a few known examples of the rich indigenous use of psychoactive compounds throughout history. While ingesting psychoactive substances to achieve altered states of consciousness for cultural and spiritual purposes has been a part of human history for thousands of years, the phenomenon has only recently emerged in Western society.

The First Wave of Psychedelics in the West

In 1955, amateur mycologist Gordon Wasson became the first Westerner to participate in a traditional psilocybin experience led by respected Mazateca curandera (or medicine woman) María Sabina in Mexico (Pollan, 2019). Against the wishes of María Sabina, Wasson published accounts of his experience in LIFE magazine in 1957 with the title “Great Adventures in the Discovery of Mushrooms that Cause Strange Visions”. This article introduced Mexico’s psychoactive mushrooms to millions of Americans, who flocked to receive a traditional healing ceremony and spiritual experience. This tourism damaged the town and the respect of María Sabina among her community (Pollan, 2019).

Around the same time, LSD, whose psychoactive properties were discovered at Sandoz Pharmaceutical Company by Albert Hoffman in 1943, began circulating in psychiatric research (Pollan, 2019). Initially thought to mimic psychotic or alcohol withdrawal symptoms, LSD was distributed by Sandoz to psychiatrists and researchers to understand the potential and application (if any) of this chemical in psychiatry (Liechti, 2017). Instead of inducing psychotic symptoms, Canadian researchers Humphry Osmond and Abram Hoffer noticed improvements and relief in patients with alcoholism following LSD treatment in the 1950s (Dyck, 2008). Following this, funding for research on the therapeutic potential of psychoactive compounds began to boom in the United States and Europe, exploring psychedelics' potential to treat addiction, depression, schizophrenia, autism, OCD, end-of-life anxiety, and more (Pollan, 2019). Psychedelic research in the 1950s and 1960s flourished as a respected area of academia and offered promising results in the psychiatric space.

However, psychedelics escaped the hands of scientific research and were popularized within mainstream society. Through access to psychedelics on college campuses, the influence of the counterculture, and government distribution of psychedelics through CIA Project MK-ULTRA, the counterculture movement was fueled by widespread experimentation with drugs (Bergen-Cico, 2015; Pollan, 2019). The counterculture was also characterized by environmental, social justice, and anti-war movements, which became the government's public enemy during heightened racial tension and the widely opposed Vietnam War. For a variety of reasons, including political agendas, propaganda-induced mass hysteria about psychedelics, and the lack of gold-standard research methodology, the 1970 Controlled Substance Act was passed, which placed all psychedelic compounds under Schedule 1. Despite evidence from thousands of clinical trials concluding the surprising safety and efficacy of psychedelic substances when administered

in a controlled, therapeutic setting, psychedelics were labeled with high addictive potential and with no perceived medical use or benefit (Shroder, 2015). In 1994, Nixon's policy advisor, John Ehrlichman, described the infamous War on Drugs campaign agenda in the following quote, which highlights the direct understanding and impact of such policies:

> The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar left and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course, we did. (Baum, 2016)

This biased legislature effectively halted research and funding, which forced those convinced of the psychedelic's profound therapeutic potential to refocus their work or continue working with these substances underground (Bergen-Cico, 2015; Pollan, 2019). An informal network of underground therapists developed in the wake of psychedelic criminalization, benefiting most from the circulation of MDMA. In 1976, Sasha Shulgin rediscovered MDMA as he and psychotherapist Leo Zeff searched for a psychotherapeutic chemical that had minimal hallucinogenic properties and was not yet illegal (Passie, 2018). MDMA was widely used among underground therapists and healers until its inevitable legal status became Schedule 1 in 1985 following its mainstream popularity as a party drug. Still, the work of the underground community of practitioners remained, with Leo Zeff administering around 4,000 MDMA

sessions and training over 150 therapists, many of whom lead today's current clinical trial research (Passie, 2018). Despite the War on Drugs' effort to demonize drug use for generations to come, the first wave of psychedelic research and the underground era of psychedelic therapy made significant contributions to the field. In fact, by the end of this era, it was estimated that there were over a thousand publications of clinical data, including more than 40,000 patients, international conferences, and dozens of books dedicated to psychedelic research (Schroder, 2015). This time in history established scientific merit for the therapeutic potential of psychedelic use and motivated pioneers to one day reintroduce psychedelics into mental health treatment.

The Current Psychedelic Renaissance

Most passionate professionals in the psychedelic research era had been patiently waiting for the resurgence of this field of study since its abandonment. Others had been formulating plans to legally reintroduce psychedelics into research. The first breakthrough since the 1970s came in 1991, when Dr. Rick Strassman gained approval from the Food and Drug Administration (FDA) and the Drug Enforcement Administration (DEA) to administer DMT to humans (Williams, 1999). Strassman then published an article detailing the process of gaining approval, which served as a legal roadmap for reintroducing hallucinogenic drug research (Strassman, 1991). His article emphasized the following specific criteria for gaining legal approval: a well-designed and well-reasoned experimental protocol, outside funding, and collaboration with someone who can manufacture the substances. Around the same time, Rick Doblin founded the Multidisciplinary Association of Psychedelic Studies (MAPS) in 1986, whose aim was to provide an alternative means of funding (outside of government or pharmaceutical funding) for psychedelic studies with a special focus on MDMA-assisted

psychotherapy (Williams, 1999). Doblin's mission was to reestablish psychedelic therapy through the legal route of FDA approval, a long-term strategy in hopes of ensuring promising research would never again be abandoned for biased agendas. MAPS has been highly successful in its efforts to fund and establish clinical trials worldwide.

The next major milestone in the resurgence of psychedelic research came in 2006 when Johns Hopkins University (JHU) School of Medicine and respected scientist Dr. Rolland Griffiths obtained the first approval to study psilocybin in human participants in the United States since the criminalization of psychedelics. This early study demonstrated that psilocybin in healthy patients could be administered safely in clinical settings and could produce spiritual significance, sustained mood, and improved quality of life (Griffiths et al., 2006). After re-establishing safety and profound impacts, researchers chose to reintroduce psychedelic clinical trial research by beginning with populations in desperate need of symptom relief. In 2016, JHU completed and published a randomized, double-blind, controlled trial involving administering psilocybin to cancer patients with life-threatening diagnoses who experience depression and end-of-life anxiety (Griffiths et al., 2016). Results were significant and astounding, with the publication concluding that "when administered under psychologically supportive, double-blind conditions, a single dose of psilocybin produced substantial and enduring decreases in depressed mood and anxiety along with increases in quality of life and decreases in death anxiety in patients with a life-threatening cancer diagnosis" (Griffiths et al., 2016). The psilocybin experience allowed these patients to see their situation and diagnosis from a new perspective, allowing them to live their present lives more fully.

Similarly, the early resurgence of psychedelic research was focused on another population in desperate need of symptom relief: those with treatment-resistant mental health

diagnoses. Psychiatric science does not currently have a solution for patients who don't respond to available mental health treatment, which includes forms of talk therapy, psychotropics, or other pharmacological options, including antidepressants. For this reason, researchers chose to first introduce clinical trial opportunities for those with treatment-resistant conditions. For example, early MDMA research sponsored by MAPS demonstrated similar results to the JHU experiment for those with treatment-resistant post-traumatic stress disorder (PTSD). In fact, its Phase 2 clinical trial, published in 2010, found that in "20 subjects with chronic, treatment-refractory PTSD (meaning they had failed two or more courses of conventional therapy), 83% no longer qualified for PTSD as measured by the Clinician-Administered PTSD Scale (CAPS), versus 25% of the placebo group at the end of treatment" (Williams, 2017). A long-term follow-up study reported significant, sustained decreases in PTSD symptoms, with many patients no longer qualifying for a PTSD diagnosis (Williams, 2017). This was an important step in establishing a potential treatment option, particularly for veterans struggling with PTSD. Research in the UK led by Dr. Robin Carhart-Harris demonstrated similar results for patients with treatment-resistant depression who were administered two psilocybin sessions coupled with psychological support (Carhart-Harris et al., 2018). The research concluded a reduction in depressive symptoms at 5 weeks post-treatment and sustained positive results at the 3- and 6-month follow-ups.

With early clinical trial results demonstrating the safety and efficacy of psychedelic-assisted therapy to reduce symptoms in previously untreatable mental health conditions, vast research interest emerged. Academic psychedelic research centers began to crop up, with Imperial College and JHU establishing the first specialized centers for psychedelic research in 2019. Currently, various academic centers, private healthcare companies, pharmaceutical

companies, non-profit organizations, and other public companies are researching psilocybin, LSD, MDMA, DMT, ketamine, ibogaine, mescaline, and new and additional psychoactive compounds for a variety of mental health conditions, addictions, behavioral patterns, well-being, and more. For example, according to their website, MAPS is investigating MDMA for PTSD, eating disorders, and anxiety disorders (Explore, n.d.). JHU is researching psilocybin for smoking cessation, Alzheimer's disease, anorexia nervosa, co-occurring depression and alcohol use disorder, and impact on healthy patients all in different phases of study (Research, n.d.).

While many studies are currently in the early stages of research, two trials are leading the way toward FDA approval. As of January 5th, 2023, MAPS completed its second Phase 3 clinical trial of MDMA-assisted therapy (MDMA-AT) for people living with severe PTSD, called MAPP2 (Prior, 2023). While a full, peer-reviewed publication is expected later this year, MAPS reports that the results confirm findings from its first Phase 3 trial, MAPP1. MAPP1 found that three MDMA sessions in conjunction with therapy both significantly and strongly reduced PTSD symptoms and significantly mitigated depressive symptoms in participants (Mitchell et al., 2021). Additionally, the mental health care company COMPASS Pathways is set to begin the first Phase 3 clinical trial for psilocybin. This study is testing the efficacy of psilocybin to treat treatment-resistant depression. Ultimately, it is up to the FDA to decide if and when to approve psychedelics for mental health treatment, but a letter from the Health and Human Services Department made public in July 2022 provides insight and promise. The letter revealed that the FDA anticipates approving MDMA for PTSD and psilocybin for depression within 24 months under the Biden administration (Busby, 2022). After a long time coming (37 years for MAPS), many are hopeful that psychedelic-assisted therapy will soon be an available treatment for those suffering from mental health conditions.

An Analysis of Medicalizing Psychedelics

The Promise and Perils of Medicalization

Though psychedelic-assisted therapy seems to be on the brink of approval and provides a promising mental health treatment option after a stagnant history of psychiatric development, many questions remain regarding the medicalization of psychedelics. To begin this discussion, one must first understand the Western medical model of mental health treatment and its implications under capitalism. The current model of mental health treatment, which differs depending on the nature of illness and the type of practitioner seen, typically includes hour-long sessions with a licensed professional and costs between $65-250 per hour (Leonhardt, 2021). A patient may see a practitioner with varying licensures and skills. For example, a psychiatrist (M.D. or D.O. degree) is trained in diagnosing mental disorders and prescribing medication but rarely combines talk therapy with its interventions (Types, 2020). Other licensed professionals may be unable to prescribe medication but may utilize talk therapy to encourage patients to better understand themselves and their situation through various dimensions and theories (Types, 2020). Additionally, the Western model of medicine works in conjunction with pharmaceutical companies, which regulate the prices of medicine in a capitalist market. The pharmaceutical industry operates by patenting newly discovered chemicals, which gives the company temporary ownership of the drug. This creates a monopoly and exclusive market for those with the patent to sell the product and issue licenses (Vondeling et al., 2018). While the promise of ownership drives drug research and innovation, sole control over a product allows pharmaceutical companies to place high costs on patented drugs without competition - forcing patients to pay high prices to access the medication (Vondeling et al., 2018). With this understanding, the

introduction of psychedelic-assisted therapy into the Western medical model leaves many wondering what this treatment will cost and require.

Promise and Perils: Affordability

It is difficult to determine the cost of psychedelic-assisted therapy, as only limited economic analyses have been done in this area thus far. However, established ketamine treatment centers and MAPS Phase 3 clinical trials provide information to speculate on the potential costs of psychedelic-assisted therapy. Ketamine is FDA-approved as a general anesthetic; however, ketamine therapy is currently being offered as an off-label treatment for depression and other mood disorders. The cost of ketamine treatment varies widely depending on location, provider, condition, dosage, and duration of infusion. One ketamine clinic, MD Infusions, reports that ketamine treatment costs can range between $1,600 and $4,800 for mood disorders and $1,400 and $12,000 for pain conditions (How, 2021). Typically included in the treatment price are multiple hour-long infusion sessions with a private space and a licensed professional to monitor safety and comfort. However, talk therapy is not usually included. Because ketamine is not FDA-approved for treating mood disorders, insurance companies do not currently cover the cost of treatment.

Alternatively, a cost analysis of MDMA-AT during the MAPP1 trial found the total cost of treatment to be $11,573 per patient (Marseille et al., 2022b). Most of the cost—$9,828 in fact—was attributed to paying therapists for sessions. Unlike off-label ketamine treatment, the MDMA-AT protocol as developed by MAPS includes “three 90-minute preparatory psychotherapy sessions, three 8-hour active MDMA or placebo sessions, and nine 90-minute integrative psychotherapy sessions” (Marseille et al., 2022b). Three psychotherapy sessions were provided after each MDMA or placebo session to help the patient integrate their experience. In

addition, all sessions were conducted by two licensed psychedelic-assisted psychotherapists. Once FDA approved, the cost of psychedelic-assisted therapy will likely follow that of MDMA-AT, with costs ranging depending on the time spent with therapists in preparation, the number and duration of drug experiences, and the time spent in integration. Though more expensive than current treatment, the cost analysis determined that for patients with severe PTSD, the MDMA-AT intervention was cost-saving and clinically beneficial for patients long-term. It remains undetermined exactly how insurance companies and other third-party payers will respond to psychedelic-assisted therapy once it is approved by the FDA; however, such cost analyses build support in favor of increased coverage of treatment, which will minimize the financial burden on patients.

As previously mentioned, another cost may crop up as pharmaceutical companies attempt to patent 'novel' psychedelic compounds for psychedelic-assisted therapy. While naturally occurring compounds cannot be patented and the patents for MDMA and LSD expired decades ago, the private and for-profit pharmaceutical industries are looking to develop structurally modified versions of existing psychedelic compounds that can be patented. The emergence of a for-profit psychedelic enterprise is both inevitable and controversial within the psychedelic space. In a 'Psychedelics Today' podcast interview, CEO of Mindset Pharma James Lanthier describes how capitalism breeds competition, which will benefit society long-term as companies compete to find the safest, most effective compounds that best fit within the medical model (Moore, 2022). For example, drug research companies may attempt to synthesize an analog of LSD with a shorter duration of experience and less intensity that produces similar (or better) clinical trial results. Such an analog would require less time with therapists and reduce costs for patients. While this provides promise, the peril is that once patented and FDA-approved,

companies decide how much to upcharge for the cost of the analog. The actions of for-profit psychedelic enterprises may ultimately limit the availability of both the compound and therapeutic aspects of psychedelic-assisted therapy. For example, COMPASS Pathways received a patent for a psilocybin analog to treat major depressive disorder (MDD) and treatment-resistant depression (TRD), despite unclear evidence within the scientific community as to whether the analog is 'novel' compared to existing synthetic psilocybin (Jacobs, 2022). Because COMPASS Pathways is the furthest along in psilocybin clinical trials, if FDA-approved, psilocybin-assisted therapy for depression will likely bear the cost of the pharmaceutical industry, despite psilocybin being a naturally occurring compound. COMPASS Pathways also attempted to patent the use of soft furniture, a sound system, certain mood lighting, and therapeutic touch used in psychedelic-assisted therapy. Members of the psychedelic community, including scientists, scholars, and practitioners, view the patent as an opportunity to capitalize on basic and necessary components of therapy and have signed a Statement on Open Science and Open Praxis with Psilocybin, MDMA, and Similar Substances to stand against this request (Jesse, 2018). Such aspects of psychedelic-assisted therapy have long been used by practitioners and guides to ensure proper setting and treatment for patients. Approval of the patent may require therapists to purchase a license from COMPASS Pathways to employ basic components of therapy (Noorani, 2020). Legal hurdles and increased expenses will limit treatment access and the quality of therapeutic care. Though the economic accessibility of psychedelic-assisted therapy is still unknown, with the ever-advancing landscape of psychedelic research and politics, including the FDA's intention to approve certain psychedelics as breakthrough therapies and the legalization of supervised psilocybin use in Oregon and Colorado, comprehensive economic research is likely to emerge (Marseille et al., 2022a). With the psychedelic industry expected to be a major upcoming market,

speculation around the accessibility and affordability of this treatment within the capitalist medical model remains high.

Promise and Perils: the FDA-Approval Process

While the capitalist medical model leaves many wondering if psychedelic-assisted therapy will be affordable, additional questions remain regarding whether and when it will be accessible. The major roadblock remains the FDA approval process. While it is the hope of the psychedelic community that MDMA and psilocybin will be FDA-approved for severe PTSD and depression, respectively, by 2024, such approval would make treatment available only to a fraction of those suffering from mental health conditions. The FDA requires new drug treatments to pass through two Phase 3 clinical trials with results demonstrating that the new treatment is as effective or more effective than the current treatment options. MAPS has been working on FDA approval for MDMA-AT for PTSD since the FDA approved a Phase 1 trial in 1996, demonstrating the lengthy timeline for the approval process (Williams, 2017). As such, psychedelics are showing potential to benefit not only people with severe PTSD and depression but also people with a variety of different or no mental health conditions. Because many clinical trials are in early-stage research and two Phase 3 clinical trials must be completed (which require extensive time and funding), it remains unknown when these substances will be available for all those for whom they may benefit. However, in recognizing the lengthy timeline of medicalization through the FDA approval process, certain states have taken steps themselves to make substances available through legalization efforts. In 2020, Oregon voters passed Ballot Measure 109, which legalized supervised psilocybin use and directed Oregon's Health Authority to license and regulate all aspects of supervised psilocybin use (Oregon, n.d.). These supervised sessions will be available to residents not only with a mental health diagnosis but also those

looking for personal growth. Set to begin in 2023, the sessions can be facilitated by guides who have undergone Oregon's training program; however, they do not need a specific degree to go through the program, which opens the door for qualified individuals outside of the medical model to engage in this process. This model, which lowers costs and expands access to the facilitated experience, is one many states are closely watching to potentially emulate. In 2022, Colorado became the second state to legalize this initiative for plant- and fungi-derived psychoactive drugs (Trim & Zagger, 2022). Other states may soon follow, with psychedelic-reform drug policy on the agenda in 11 states in 2023, all aimed at expanding access to naturally occurring compounds for therapeutic use through decriminalization and legalization efforts. While some states will take the legal route to quickly expand access to this treatment, those in states that do not take this approach will have to wait for the FDA approval process. Such discrepancies between states and the slow FDA approval process create barriers to access for many who may benefit from these services.

Promise and Perils: Integration into the Current Medical Model

Access to psychedelic mental health treatment also depends on integrating its use into the Western medical model, which will require various steps. In a 'Psychedelics Today' podcast interview, CEO of the Board of Psychedelic Medicine and Therapy Scott Shannon describes the need for standards of education, training, and licensure for practitioners and guides to ensure proper treatment within the model (Buller, 2022). Psychedelic-assisted therapy certification programs currently exist in small numbers with their own requirements; however, for psychedelic-assisted therapy to fully integrate into the medical model, there will have to be a national licensure standard. Shannon expects the standard national training program to include the completion of a certain number of credits gained from educational and clinical hours—likely

100-200 hours—and the passing of a national exam (Buller, 2022). Standard national training is essential in demonstrating that the medical community is ensuring safety and education in this field, making the FDA less inclined to regulate the logistics of treatment that may limit patient access. For example, the FDA has the capacity to mandate two doctoral-level practitioners in each room, which would be difficult, costly, and inefficient considering the number of qualified individuals with varying degrees. For this reason, it is the hope of the medical field that they can create best practice standards for themselves, which will also benefit patient access.

Additionally, discrepancies exist within the field regarding what standard training for a certification in psychedelic-assisted therapy should entail. It has long been the opinion of experienced psychedelic practitioners that a therapist or guide should undergo their own guided psychedelic session as part of the training process. While at first this recommendation may seem shocking to Western scientists and readers, the nature and history of psychedelic experiences make this opinion intuitive. As mentioned previously, psychedelic experiences are characterized by their ineffability, taking patients into unfamiliar and often complicated territories. The role of the therapist or guide is to help patients navigate these territories and integrate the experience into their everyday lives. Though research has not been conducted to prove whether patient outcomes differ if the practitioner undergoes their own psychedelic experience, pioneers of the historical psychedelic research era stress the importance of direct experience with psychedelics to function successfully in the role of helping patients navigate this territory (Nielson & Guss, 2018). Rick Doblin agrees with this sentiment in regards to MDMA-AT, stating in a 'Psychedelics Today' podcast interview that "since psychedelic psychotherapy is based so much on the relationship between the therapist and the patient—the therapeutic alliance" and since there is an eight-hour session in which the patient may be working on their own inner journey,

listening to music, or talking with the therapist, "—if the therapist had their own MDMA experience, they can be more sensitive to what's going on when the patient is not talking to them, they can sort of know what people can handle better because they will have seen what they can handle" (Drapkin, 2022). Additionally, in indigenous traditions where psychoactive substances are consumed ceremoniously, it is often the shamans, sometimes themselves, who ingest the sacred plant to commune with the plant, ancestral, animal, or spiritual world and return with knowledge for the community (Sakellaridis, 2020). In Western culture and society, spiritual wisdom is often dismissed in favor of materialism and empirical knowledge. Nonetheless, many believe that learning from indigenous traditions that have vast experience using psychoactive substances for healing and spirituality will benefit the psychedelic field at large. Despite arguments for including a psychedelic experience in the training of psychedelic-assisted therapists and guides, the illegality of psychedelics makes it currently impossible to require or train practitioners in this way. MAPS is attempting to overcome this hurdle and gain legal access to this training by negotiating with the FDA to have the approved MDMA label say: "MDMA for PTSD by trained therapists whose training can include one MDMA session" (Drapkin, 2022). Other training programs may recommend an experience in the psychedelic underground or in a country where drug laws differ. With wide-ranging opinions on the topic and legal roadblocks in the way, it is unlikely that national standard training will require practitioners to undergo their own psychedelic experience, which may or may not be at the cost of patient benefit.

Not only will the integration of psychedelic-assisted therapy require FDA approval, new models of training, and new modalities of training—all of which take time to develop—accessibility requires that more practitioners be trained to meet the expected demand for this treatment. The United States is currently experiencing a mental health crisis. In 2020, nearly 52.9

million adults (20%) were living with a mental illness in the United States, and 14.2 million adults (5.6%) were living with a severe mental illness (Mental, 2022). The mental health crisis was exacerbated by the COVID-19 pandemic, with 40% of adults reporting symptoms of anxiety and depression at the height of the pandemic (Weiner, 2022). Though that number has dropped, it remains higher than levels pre-pandemic. Additionally, the Association of American Medical Colleges reports that 150 million Americans live in areas federally designated as mental health shortage areas (Weiner, 2022). The United States is already experiencing a shortage of psychiatrists, with half the counties in the country, especially in rural areas, without a single psychiatrist. The shortage is growing; within a couple of years, the country expects to be short between 14,280 and 31,109 psychiatrists, with other mental health care professionals including psychologists, social workers, and more likely also overextended. Amidst this shortage, experts, including Rick Doblin, estimate 100,000 facilitators will need to be trained in psychedelic-assisted therapy to meet the expected demand (Devine, 2022). MAPS hopes to train 25,000 therapists by 2030, but various other training programs will need to expand to meet this goal.

On another note, if psychedelic-assisted therapy is to be made available to all those who may benefit, considerations must be made regarding equity in health care. A literature review that assessed 18 psychedelic-assisted psychotherapy studies between 1993 and 2017 found that 82.3% of study participants were white, with other racial and ethnic minority groups each comprising 1–4% of participants (Michaels et al., 2018). The review also found converging evidence in the U.S. that suggests rates of psychological distress are equal or sometimes higher in people of color compared to non-Hispanic whites (Michaels et al., 2018). People of varying identities, including those who are part of racially marginalized communities, veterans, youth, the LGBTQ+ community, women, people who use drugs, and more, experience different forms

of trauma and face additional barriers to treatment because of their lived experiences within these identities. For this reason, it is important for various identities to be represented in psychedelic clinical trials to ensure treatment efficacy is generalizable to everyone for whom it may benefit. Additionally, more practitioners need to be trained to specifically work with groups of varying identities. Representation and training among practitioners are essential to ensuring that practitioners are culturally competent in their patient population needs and that patients trust and feel supported by practitioners within this field. MAPS is attempting to improve in this area by hosting the first-ever MDMA-AT training for communities of color in 2019 (Lekhtman, 2019). Moreover, in MAPS's second Phase 3 trial for MDMA-AT for PTSD, more than half of the participants identified as people of color, a first for psychedelic clinical trials (Prior, 2023). While these are vital first steps within the field, more needs to be done to ensure treatment is equitable and accessible for people of all communities to benefit from this treatment.

Ultimately, psychedelic-assisted therapy is vastly promising for the field of psychiatry and mental health, with early clinical trial research demonstrating the possibility of this modality to treat a variety of mental health conditions and improve overall quality of life. However, implications regarding the medicalization of psychedelics may limit the availability and accessibility of this treatment. From analyzing MDMA and ketamine treatment data, the impact of pharmaceutical companies, and the lack of economic analysis regarding insurance coverage of treatment, it remains unknown whether psychedelic treatment will be affordable. Moreover, due to the lengthy FDA approval process, the need to create new training paradigms for practitioners, the lack of practitioners compared to the expected demand, and health equity concerns, access to this treatment may be severely limited for several years. The United States is undergoing a mental health crisis, with many in desperate need of treatment quicker than the timeline available

for psychedelic-assisted therapy. Interestingly, it appears that while access to this treatment is currently limited, understanding the mechanisms through which psychedelics operate may indicate ways of accessing the benefits of this treatment through alternative and more accessible avenues.

Accessible Ways Toward Healing

Understanding the Experience

It is through discussing psychological theory, neuroscience, and their interactions born out of psychedelic research that one can attempt to understand the greater potential and applicability of this treatment. To begin, psychedelic research is fundamentally altering the way Western science approaches mental health theory and the mind. As opposed to standard psychiatric approaches, which diagnose and treat different mental health disorders in silos, one psychedelic substance provides promise to treat a myriad of mental health conditions. If one substance can treat a variety of conditions, perhaps there is an underlying mechanism that relates mental health conditions to one another - the mechanism that psychedelics can disrupt. David Kessler, M.D., and the former Chief Science Officer of the White House, describes his understanding of the theory of mind in his book *Capture: Unraveling the Mystery of Mental Suffering* (Kessler, 2016). Michael Pollan describes Kessler's understanding of "capture" as "his term for the common mechanism underlying addiction, depression, anxiety, mania, and obsession; in his view, all of these disorders involve learned habits of negative thinking and behavior that hijack our attention and trap us in loops of self-reflection" (Pollan, 2019 pp. 383–384). Under this theory, different mental health conditions arise as various manifestations of maladaptive, repetitive thinking patterns. According to Matt Johnson, Ph.D., and professor of psychiatry at JHU, psychedelics work by providing a "mental reboot" that shakes the brain's

normal pattern of thinking and offers new perspectives (Pollan, 2019). After a history of patterned negative thinking, behavior, and loops of self-reflection, being able to see one's life from a new perspective may provide the symptom relief and sustained positive benefits noted in psychedelic clinical trial research.

Similarly, one can turn to the work of Stanislav Grof, a Czech psychiatrist and pioneer of LSD psychotherapy, for the psychological theory developed from his experience leading over 4,000 LSD psychotherapy sessions since 1954. In 1967, Grof collaborated with the founders of humanistic psychology and other prominent figures in the psychological, spiritual, and psychedelic research spaces to develop a new theory called transpersonal psychology. Unlike established theory at the time, transpersonal psychology aimed to be applicable transculturally and encompass all aspects of the human experience, including observations from psychedelic or non-ordinary states of consciousness, creativity, religion, etc. (Grof, 2008). This theory provides a psychological lens through which to view the psychedelic experience in relation to the self and healing. Grof describes his understanding of the psychedelic experience in a 2018 interview with Tim Ferris by saying, "I realized people were not having LSD experiences; they were having experiences of themselves. But they were coming from depths that psychoanalysis didn't know anything about" (Ferris, 2018). Transpersonal psychology suggests that psychedelics work by not only offering a deeper way to know oneself but also new ways to know oneself in relation to the world. This deeper understanding often happens through mystical or spiritual experiences that psychedelics can occasion. Grof describes this experience in two ways. The first is the experience of the *immanent divine*, which "is characterized by subtly, but profoundly transformed perception of the everyday reality" (Grof, 2008, p. 7). According to transpersonal psychology, a person experiencing the immanent divine sees a new level of interconnectedness

between people, plants, nature, and inanimate objects. The second is the experience of the *transcendent divine*, which "involves manifestations of archetypal beings and realms of reality that are ordinarily transphenomenal, that is unavailable to perception in the everyday state of consciousness" (Grof, 2008, p. 7). Grof uses this analogy of television to portray the perceptual changes after these experiences: if a black and white television on channel 1 was a representation of normal, waking consciousness, an experience of the immanent divine would be analogous to the television suddenly appearing in color. More radically, an experience of the transcendent divine would be analogous to changing the channel after believing the only channel to exist was channel 1. Spiritual experiences may provide that "mental reboot" by shaking one's normal perception of the self and everyday reality, leaving room for new connections, new patterns, and new understandings to form. This perspective is also consistent with current clinical trial data. In the 2016 Johns Hopkins Psilocybin Cancer Study, the research revealed a significant association between the intensity of the mystical (or spiritual) experience and the degree to which depression and anxiety decreased among participants at the 5-week follow-up (Griffiths et al., 2016). The mystical experience was noted to play an important role in sustained positive changes in mood, attitude, behavior, and spirituality. The psychological approach is an essential component of understanding how the subjective psychedelic experience affects the mind.

Moreover, the effects of the psychedelic experience can also be understood through the lens of objective neuroscientific research. Current neuroscientific research suggests that psychedelics work by quieting the Default Mode Network. The Default Mode Network (DMN), a concept first introduced by Marcus Raichle in 2001 and popularized by Robin Carhartt Harris' continued research on the subject, is characterized by the network of brain activity when the brain is in its "resting state." This resting state occurs when the brain has no mental tasks to

perform and instead can wander, think, ruminate, worry, and the like. Surprisingly, the DMN is quite active, consuming most of the brain's energy, and is particularly active when a person is engaging in "higher-level "metacognitive" processes such as self-reflection, mental time travel, mental constructions (such as the self or the ego), moral reasoning," putting oneself in someone else's shoes, and other similar mental activities (Pollan, 2019, pp. 302). The DMN is also at the top of the brain's hierarchy of processing, meaning it influences and manages the rest of the brain's response to stimuli (Pollan, 2019). When the part of the brain that constructs the idea of self, or ego, oversees all mental processing, one can see how negative or maladaptive thought patterns can completely affect a person's experience with and quality of life. It is this rigid and default network of understanding the self and the world through the lens of the self that the psychedelic experience may disrupt. For example, in an early experiment studying blood flow in the brain on psilocybin in an fMRI machine, Carhartt Harris noticed that psilocybin decreased brain activity, particularly with the largest decrease in activity concentrated in the DMN (Pollan, 2019). The study also found that decreases in DMN activity were associated with subjective reports of 'ego dissolution', with volunteers more likely to report a loss of a sense of self the steeper the DMN activity dropped. It is speculated that the experience of ego dissolution is therapeutic because it allows a person to view their thoughts and actions with greater distance and objectivity (Gattuso et al., 2023). Ego dissolution, along with feelings of boundlessness, unity, and interconnectedness, are all hallmark qualities of the mystical or spiritual experiences mentioned above.

Finally, it is believed that psychedelics work in the brain by improving neuroplasticity. Neuroplasticity is the brain's ability to change throughout life in response to learning, particularly in strengthening and forming new neural connections. According to preclinical and

clinical data, it is believed that classical psychedelics (LSD, psilocybin, and DMT) enhance neuroplasticity by acting on the 5-HT2A (serotonin 2A) receptor, where increased neuronal growth, synaptic strength, and dendritic growth are noted (Calder & Hasler, 2023). Changes at the molecular level manifest in learning, memory, mood, and adaptive behavior, including the ability to adjust, adapt, and recover from life experiences. As opposed to a brain that is rigid in patterns, increased neuroplasticity enables the brain to reorganize structure and function in response to changing environments. Life is full of change, from situations to environments to relationships and moods. Developing the ability to learn and grow from ever-present change leads to greater resilience and adaptability to life and its stressors.

It remains unclear exactly how psychedelics operate to produce profound physiological and psychological effects. However, research indicates that psychedelics' ability to occasion spiritual experiences, quiet the Default Mode Network, and improve neuroplasticity all work in tandem to allow one to know oneself and one's world more deeply, promote healing, and improve quality of life. While this knowledge is beneficial, one might question its value if psychedelic-assisted therapy remains inaccessible amidst this current mental health crisis. Thankfully, psychedelic-assisted therapy is not the only avenue for achieving neuroplasticity, quieting the DMN, and/or occasioning spiritual experiences. In the final portion of this paper, I will be discussing more accessible alternatives to psychedelic-assisted therapy that the general population may benefit from and use to begin their own journey toward healing.

The Many Roads to Healing Oneself

Resembling psychedelic-assisted therapy, alternatives to this treatment also provide ways to know oneself and one's world more deeply while strengthening neurobiological wiring. Most of these practices stem from a variety of cultures, ancient traditions, and indigenous wisdoms

from around the world. As a caution, it is important to mention the limitations of this section. This section will include introductions to techniques that may be beneficial for those looking to engage in a self-transformational journey comparable to what psychedelics can initiate. By introducing these alternatives, it is the hope of this section to spark interest in the possibility of transformation from within; however, this section is not a guide on how to use such practices. Engaging in any number or combination of these practices should involve additional research on subjects of interest and personal introspection regarding best practices for oneself. These alternative methods include but are not limited to meditation, breathwork, connection building, intentional plant usage, and general introspection.

To begin, cultivating practices in contemplative studies such as meditation and mindfulness provides the most empirical evidence for achieving such benefits. Rooted in Eastern traditions, meditation aims to cultivate the mind-body connection and calm the mind. This is done through a variety of practices involving focused mental attention on sensations such as sound, breath, visual images, and repeating words or mantras (Meditation, 2022). A meta-analysis comparing the brain activity of meditators of various traditions found that certain brain structures were consistently altered across disciplines, such as areas responsible for body awareness, memory processing, self- and emotional regulation, and interhemispheric communication (Fox et al., 2014). These changes indicate neuroplasticity in response to meditation practices. The practice of meditation is also known to quiet the Default Mode Network (Mahone et al., 2018). In fact, a researcher studying transcendent meditation in experienced meditators found significant similarities in fMRI results between DMN activity in his participants who noted the transcendence of self and those on psilocybin in Carhart-Harris' fMRI study (Pollan, 2019). Comparing transcendent meditation to psychedelics, "it appears that

when activity in the default mode network falls off precipitously, the ego temporarily vanishes, and the usual boundaries we experience between self and world, subject and object, all melt away" (Pollan, 2019 p. 305). Akin to psychedelics, a meditation practice enables a person to benefit from the neurological and subjective effects of going inward and seeing oneself and one's world from a different perspective. The inward process in both experiences also builds empathy and compassion, which improve social interactions and relationships with others.

There are various forms of meditation practices that may be beneficial. Mindfulness is a form of meditation practice where one focuses on the nonjudgmental awareness of the present moment, including awareness of thoughts, emotions, or sensations that may arise (Meditation, 2022). Research suggests that mindfulness meditation enhances neurological processes related to attention control, emotional regulation, and self-awareness (Tang et al., 2015). For more information, the book *Buddha's Brain: The Practical Neuroscience of Happiness, Love & Wisdom* describes how and why meditation and mindfulness practices enhance neuroplasticity and improve quality of life (Hanson, 2009). Other forms of meditation include loving kindness meditation practices and connecting practices such as yoga, dance, music, art, expressive writing, play, and the like. Connecting practices directly engage the body and can be facilitators toward states of increased openness, release, and emotional regulation (Grof, 2008).

Another alternative to psychedelic-assisted therapy is holotropic breathwork. The use of breathwork to influence physical or psychospiritual health is well documented throughout history in many yogic, Buddhist, or other ancient traditions and practices (Fincham et al., 2023). While various breathwork techniques may provide similar and advantageous benefits, the focus of this section will be on the specific technique of holotropic breathwork because of its connection to psychedelic work. Holotropic breathwork was designed by Stan and his wife, Christina Grof, in

the 1970s in response to the criminalization of LSD and the halting of psychedelic research. In recognizing the therapeutic value of non-ordinary states of consciousness, the Grofs combined knowledge from psychedelic research, modern consciousness research, Eastern spiritual traditions, native healing practices, and transpersonal psychology to create a theory and practice of evoking a non-ordinary state of consciousness through breathing techniques. Grof describes that "this approach induces deep holotropic states of consciousness by a combination of very simple means–accelerated breathing, evocative music, and a technique of bodywork that helps to release residual bioenergetic and emotional blocks" (Grof, 2010, p. 1). While breathing is an autonomous function, it plays a larger role in psychospiritual health than meets the eye. It has been scientifically observed that restricted breathing is tied to psychological resistance and defenses (Grof, 2010). Through experimentation with holotropic breathwork, Grof confirmed such findings and concluded that a "deliberate increase of the pace of breathing typically loosens psychological defenses and leads to a release and emergence of unconscious (and superconscious) material" (Grof, 2010, p. 8). More information on its merit, technique, and therapeutic benefit can be found in the book *Holotropic Breathwork* (Grof & Grof, 2010). Like the psychedelic experience, Grof recognizes that it is difficult to conceptualize the effects and power of this technique on theoretical grounds alone; it is an experience one must witness to understand in its entirety. Holotropic breathwork sessions are typically administered in groups, and it is not recommended to attempt this technique alone. There are many different avenues to experience this breathwork experience, from hour-long sessions hosted by Frequency Breathwork to week-long retreats or workshops hosted by Grof Transpersonal Training. Regardless of the avenue taken, it is important to do one's own research to determine if and how holotropic breathwork might be beneficial to oneself.

Additionally, the study of well-being and resilience provides guidance for how to cultivate the benefits noted in psychedelic clinical trials. After all, the goal of these modalities converges in improving mental health and quality of life. Good mental health can be described as the sense of well-being a person experiences when they know they can handle the varying circumstances and uncertainties of life. Resiliency describes the ability to cope with adversity throughout life (Mental, 2013). According to Dr. Dan Siegel, psychiatrist, and founding co-director of the Mindful Awareness Research Center at UCLA, promoting good mental health requires harmonious interplay between the mind, brain, and relationships, which he describes through his Triangle of Wellbeing and Resilience (Siegel, 2010). According to his theory, based on cutting-edge research on interpersonal neurobiology, each point of the triangle interacts with and affects the other. Becoming aware of how they do so is important in cultivating practices to build healthy connections (Siegel, 2010). The research throughout this paper demonstrates that the brain and mind do impact each other; therefore, engaging in any method mentioned will promote the integration of that connection. Less emphasized but equally important is the role of relationships on the mind and the brain. Similar to how the mind and body share energy and information, that energy and information are shared between people through relationships (Siegel, 2010). People come to understand and make meaning of the world through relationships, including those with parents, friends, teachers, a larger community, etc. Cultivating and engaging in fulfilling relationships provides people with the purpose, belonging, and support (emotionally and neurobiologically) to cope with adversity that is ever-present throughout life. For those looking to strengthen this aspect of their triangle, the National Alliance on Mental Illness recommends finding a community that shares like-minded interests, values, and beliefs with oneself (Gilbert, 2019). Additionally, one can improve existing relationships through thoughtful

practices consistent with the methods in this section by engaging in mindful communication theory. For more information on this topic, Kim Pearce's *Compassionate Communicating: Poetry, Prose & Practices* provides explanations and methods to cultivate compassion, which strengthens relationships and builds resilience (Pearce, 2012). Because human beings are social creatures, cultivating compassion and empathy, which allows one to build deeper and more fulfilling connections with people, provides invaluable benefits to wellbeing.

All this being said, it is also possible to engage in intentional psychoactive plant usage outside of psychedelic-assisted therapy, which can provide healing. With research revealing positive clinical trial results, it is natural that many will turn to personal experimentation with psychoactive substances. This section is not meant to encourage illicit substance use but instead to provide harm reduction and transformation-enhancing tools to those who will engage in intentional psychoactive substance use for healing potential. When discussing intention, one can turn to indigenous populations who have been intentionally ingesting psychoactive plants because of their healing properties for millennia in sacred and ceremonial settings. Set, setting, and intention can dramatically impact one's experience with a substance and should be highly thought-through when engaging in a psychoactive substance for the purpose of healing. *The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead* describes these qualities (Leary et al., 1995). "Set" refers to the mental space and preparation of the individual, including personality, mood, lived experience, etc., at the time of the experience. "Setting" refers to aspects of the physical and cultural environment that have the potential to impact an experience. This includes the weather, the atmosphere of the room, the people around, the attitudes toward one another, and more. Intention refers to the self-inquiry of why one is engaging in a psychedelic or psychoactive experience and/or what one hopes to gain. For

example, the therapeutic set-up for psychedelic-assisted therapy provides an intention of self-experience, preparation sessions to ensure the mental set is right for the patient, and a safe environmental setting that promotes a vulnerable, self-transformational experience to unfold. This model can be applied to more accessible, legal substances, such as cannabis, in some states. In fact, certain practitioners, including the regarded pioneer of "psychedelic cannabis," Daniel McQueen, believe in the power of intentional cannabis use to promote insight, growth, and healing (Lawlor, n.d.). For those who work with cannabis as a healing modality, such as at Medicinal Mindfulness, practitioners note that usage of cannabis with intention, ritual, and support enables emotional opening and the ability to see oneself and one's world from different perspectives (Lawlor, n.d.). Not enough research has been done to explain the mechanism of this method; however, it can be logically concluded that the neurological changes complement subjective changes in perspective, both of which allow healing to occur when set, setting, and intention are prioritized.

Research on mental health and happiness reveals the profound benefits that may occur when one does the inner work to strengthen connections between one's mind, body, relationships, and world. Each method mentioned above, along with various others, facilitates psychospiritual and neurobiological growth through the practice of connecting one to oneself. However, as each person has their own inner life, no one's journey using these methods will be the same. A trial-and-error period with various methods and combinations is necessary to reach a state where the modalities prove effective. Further, these methods are not instant solutions to the struggles of life. They require patience, practice, and a long-term commitment to the betterment of oneself. This is where the true promise of psychedelic therapy lies. Clinical trial participants often state that one psychedelic therapy session is equivalent to years of talk therapy. Whether

accurate or not, psychedelic therapy is certainly a catalyst for introspection and inquiry about one's own life, often demonstrating before one's eyes new possibilities and perspectives never considered. However, psychedelic therapy is not an instant fix either. Reaping its benefits requires the consistent practice of integrating the psychedelic experiences into everyday life, which is done using the methods mentioned above. All roads lead to one place: the place of harmony, compassion, and connectedness. Psychedelic therapy is merely a highway to getting there.

Conclusion

It is important to mention the limitations of this work. While this paper involves a cross-disciplinary approach to understanding the resurgence of psychedelics, it does not fully exhaust the vast intricacies of this space. The ineffable nature of the psychedelic experience itself limits what is possible to articulate in an academic piece. Additionally, much remains unknown about the use, potential, and implications of reintroducing psychedelics through the medical model in Western society. This paper is particularly limited in its discussion of the implications for indigenous populations. Indigenous wisdom is guiding the West in the proper use of these substances for their spiritual and healing potential. However, their tradition is becoming a commodity, and renewed interest in psychoactive substances is affecting indigenous access to sacred plants. This paper is also limited in its mention of the risks of psychedelic use. Because of the intense nature of psychedelics, the experience is not meant for everyone. Such an experience can occasion 'psychotic' or difficult-to-process reactions and/or cause health threats to certain populations due to the physiological impact of the drug reaction. Thus, the psychedelic experience should be deeply considered by both the seeker and a trusted professional. Time,

length, and cohesiveness constraints limit what is possible to include here, as each topic mentioned can be understood in greater depth. Various articles, books, and podcasts can elaborate on any point of interest. As mentioned, this work is not meant to be a guide on how or why to undergo a psychedelic experience. Instead, it is meant to introduce this emerging field and its possibilities through a comprehensive lens.

This paper has traversed many landscapes in the discussion of medicalizing psychedelics. Starting first with a historical account of indigenous use, then moving to therapeutic use in the 1960s and 1970s, it has been important to contextualize these substances outside of the false War on Drugs narrative that remains tightly held in Western society. Once flourishing in the field of psychiatry and mental health, psychedelics were criminalized, and research was shut down by policy without evidence-based merit. Because of the diligent, hard work of passionate pioneers in space, 50 years later, psychedelic research has made a resurgence in the medical field. The clinical trial results are promising! Currently, various psychedelics are being tested to treat a myriad of mental health conditions. Leading the way are MDMA for PTSD and psilocybin for depression, both of which are likely to be FDA-approved within 2 years. Amidst a mental health crisis, psychedelic therapy provides astonishing hope to a field previously devoid of new and effective treatments. However, the medicalization of psychedelics is not without its perils. Specifically, access to treatment appears to be the largest barrier. With the potential for extreme costs, a lack of trained psychedelic practitioners, a lengthy FDA approval process, and issues of the like, it remains unknown if and when the population will be able to benefit from this treatment. Because access to psychedelic-assisted therapy is likely to be limited for several years, this paper discusses recommendations to begin one's own healing journey outside of psychedelic-assisted therapy using evidence-based methods from psychedelic, contemplative,

and mental health research. Though psychedelics seem to expedite the process toward healing in therapeutic containers, it appears that the subjective and neurobiological effects of psychedelic therapy can be emulated by consistent introspective and compassion-enhancing practices. With or without psychedelics, it is the hope of this paper to convey that relief from suffering is possible and that the journey toward healing can begin today. All it takes is the courage to go within.

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