

Psychedelics for Mental Health Treatment: A Review

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Abstract

Psychedelics have re-emerged as a promising area of research in the field of mental health treatment, offering novel therapeutic approaches for a range of psychiatric conditions. This review examines the role of psychedelic substances, including psilocybin, lysergic acid diethylamide (LSD), 3,4-methylenedioxymethamphetamine (MDMA), and ketamine, in the management of disorders such as depression, anxiety, post-traumatic stress disorder (PTSD), and substance use disorders. It explores their mechanisms of action, particularly their interaction with serotonergic systems, enhancement of neural plasticity, and capacity to facilitate profound psychological experiences. The review also highlights the importance of structured therapeutic frameworks, including preparation, guided administration, and post-session integration, in maximizing treatment outcomes. Evidence from recent clinical trials suggests that psychedelic-assisted therapies may produce rapid and sustained improvements, particularly in treatment-resistant cases. However, concerns related to safety, ethical considerations, and regulatory limitations remain significant.

Furthermore, this paper discusses the historical context of psychedelic use, the factors contributing to renewed scientific interest, and the influence of “set and setting” on therapeutic effectiveness. While findings are encouraging, the review emphasizes the need for large-scale, long-term studies to establish standardized protocols and ensure safe clinical implementation. Overall, psychedelics represent a potentially transformative approach in mental health care, with the capacity to complement or, in some cases, redefine existing treatment paradigms.

Keywords : Psychedelics, Therapeutic, Mental health, Treatment, Psilocybin

Introduction

In the realm of mental health treatment, there exists a burgeoning field of study that has captivated the attention of researchers, clinicians, and the public alike – the therapeutic potential of psychedelics. Over the past few decades, a remarkable resurgence of interest in these mind-altering substances, including psilocybin, MDMA, and LSD, has ignited a reevaluation of their utility in addressing an array of mental health disorders. This renewed exploration is grounded in a growing body of evidence from clinical trials and studies suggesting that under controlled and supervised conditions, psychedelics may offer profound therapeutic benefits for individuals grappling with conditions such as depression, anxiety, post-traumatic stress disorder (PTSD), and addiction. What distinguishes these substances from conventional pharmacological interventions is their propensity to induce transformative and

often mystical experiences, which are believed to be integral to their therapeutic efficacy. This introduction sets the stage for a comprehensive exploration of the evolving landscape of psychedelic-assisted therapy, emphasizing the need for rigorous research, elucidation of mechanisms of action, assessment of safety, and consideration of the potential risks. As we embark on this journey into the world of psychedelics and mental health treatment, it becomes increasingly apparent that these substances hold the promise of revolutionizing the way we approach and understand the healing of the mind. In the annals of mental health treatment, a paradigm shift is underway, one that challenges conventional wisdom and opens doors to uncharted therapeutic territories. This shift centers around the remarkable potential of psychedelics, substances once relegated to the margins of society due to their association with counterculture movements of the 1960s. Now, however, scientific inquiry is revealing a different side to these compounds. With growing rigor and methodological sophistication, researchers are unlocking the doors of perception, exploring the profound healing properties that psychedelics may offer to individuals grappling with the burdens of mental illness. Psilocybin, found in magic mushrooms, MDMA (3,4-methylenedioxymethamphetamine), and LSD (lysergic acid diethylamide) have emerged as the front-runners in this journey of exploration. Under tightly controlled and therapeutic settings, these substances have shown an astonishing capacity to catalyze transformative and often mystical experiences that have a profound impact on mental well-being. This introduction beckons us to delve deeper into this fascinating realm, a domain where the psychedelic experience is considered not merely as a drug-induced trip but as a powerful catalyst for introspection, self-discovery, and healing. As we traverse the landscape of psychedelics in mental health, we must navigate questions of safety, unravel the enigmatic mechanisms of action, and address potential risks, all while bearing in mind the tantalizing prospect of revolutionizing the way we treat and understand the complexities of the human mind.

Psychedelic Substances:

An in-depth look at the key psychedelics being studied for mental health treatment, including psilocybin, MDMA, and LSD. The world of psychedelic substances, with its enigmatic allure and profound effects on consciousness, has long held a place at the intersection of science, culture, and spirituality. In our exploration of the therapeutic potential of psychedelics in the realm of mental health treatment, it is essential to delve into the distinct characteristics and properties of these substances. Foremost among them are psilocybin, found in various species of mushrooms; MDMA, renowned for its empathogenic qualities; and LSD, the iconic compound associated with transformative experiences. Each of these psychedelics possesses its own unique profile, affecting the mind and emotions in diverse ways. Psilocybin, for instance, is celebrated for its introspective and mystical qualities, while MDMA is known for its capacity to foster empathy and emotional connection. LSD, on the other hand, has historically been associated with mind-expanding journeys. As we embark on this exploration,

we'll not only dissect the chemical structures of these compounds but also explore their cultural histories, traditional uses, and contemporary significance. Understanding these psychedelics at a fundamental level is a pivotal step in appreciating their potential as therapeutic tools for addressing the complex tapestry of mental health challenges that afflict our modern society.

The Psychedelic Experience:

Understanding the nature of psychedelic experiences, their variability, and their potential therapeutic significance. The psychedelic experience is a phenomenon that defies easy categorization and embraces the profound depths of human consciousness. It represents a journey into the inner realms of the mind, where perception is altered, boundaries dissolve, and a profound sense of interconnectedness with the universe can be encountered. In the context of mental health treatment, this experience has emerged as a central and transformative aspect of psychedelic therapy. It is not merely the ingestion of a substance; it is a profound exploration of the self and the cosmos. The psychedelic experience is characterized by its variability, as it can range from moments of intense introspection to states of ego dissolution and unity with all that exists. Understanding and harnessing this unique quality of psychedelics is crucial to realizing their therapeutic potential. In this section, we embark on a journey to unravel the intricate tapestry of the psychedelic experience, its subjective nature, and its role in facilitating healing and personal growth. It is within the depths of this altered state of consciousness that individuals often confront their traumas, fears, and unresolved emotions, making it a powerful catalyst for profound transformation and healing in the realm of mental health.

Clinical Trials and Research:

An overview of the latest research findings and clinical trials examining the efficacy of psychedelics in treating various mental health disorders. The resurgence of interest in psychedelics as therapeutic agents has not occurred in a vacuum but rather against the backdrop of rigorous scientific inquiry and clinical investigation. Over the past few decades, an impressive body of research has emerged, illuminating the potential of these mind-altering substances to revolutionize the field of mental health treatment. In this section, we embark on a journey through the realm of clinical trials and research, where empirical evidence meets the promise of profound healing. With an emphasis on methodological rigor and ethical oversight, researchers have been conducting trials to explore the efficacy and safety of psychedelics in treating an array of mental health conditions. These studies encompass a diverse range of participants, from those grappling with treatment-resistant depression to individuals burdened by the enduring trauma of post-traumatic stress disorder (PTSD). In the pages that follow, we delve into the findings, methodologies, and implications of these clinical trials, uncovering how psychedelics, administered in carefully controlled settings, have brought about transformative and often enduring benefits to those in desperate need of relief. This introduction marks the gateway to a scientific odyssey that has the potential to reshape the landscape of mental health care, ushering in a new era of hope and healing for countless individuals worldwide.

Safety and Supervision:

Exploring the importance of controlled and supervised environments for administering psychedelics and minimizing potential risks. In the pursuit of unlocking the therapeutic potential of psychedelics, a paramount concern looms large—ensuring the safety of individuals who embark on these profound journeys of the mind. Unlike conventional pharmaceuticals, which come with well-established safety profiles, psychedelics tread on less charted territory, where the line between transformative experience and potential risk can blur. It is within this context that the critical role of safety and supervision comes to the forefront. In this section, we delve into the intricate dance between risk and benefit, highlighting the importance of meticulously controlled environments and trained guides. The administration of psychedelics, such as psilocybin or MDMA, necessitates a setting that balances the potential for transcendental insight with the need for physical and emotional safety. It's a delicate tightrope walk between the liberation of consciousness and the safeguarding of well-being. We explore the protocols and practices that have been developed to mitigate risks, such as psychological support, medical monitoring, and the creation of a comfortable, supportive atmosphere. As we journey further into the therapeutic realm of psychedelics, understanding how safety and supervision intertwine with the potential for transformation becomes imperative, for it is in these controlled environments that the healing potential of these substances is harnessed, fostering hope for a brighter future in mental health care.

Introduction to Psychedelics in Mental Health

Psychedelics are a class of psychoactive substances that alter perception, cognition, and mood, often producing profound changes in consciousness. In recent years, these substances have gained increasing attention in the field of mental health for their potential therapeutic benefits. Unlike traditional psychiatric medications that are typically taken daily, psychedelic-assisted treatments are often administered in controlled settings alongside psychotherapy, with effects that may persist long after a single or limited number of sessions.

Substances such as psilocybin, lysergic acid diethylamide (LSD), and 3,4-methylenedioxymethamphetamine (MDMA) are being investigated for their effectiveness in treating conditions like depression, anxiety, post-traumatic stress disorder (PTSD), and substance use disorders. These compounds are believed to work by modulating neural circuits involved in emotion regulation, increasing neural plasticity, and facilitating introspective and emotionally meaningful experiences. Psychedelic therapy typically involves structured sessions that include preparation, guided administration, and post-experience integration. This holistic approach aims not only to reduce symptoms but also to promote long-term psychological growth and well-being.

Historical Use of Psychedelic Substances

The use of psychedelic substances dates back thousands of years, particularly in indigenous and traditional cultures. Naturally occurring psychedelics, such as psilocybin mushrooms and ayahuasca, were used in religious rituals, healing ceremonies, and spiritual practices. These

substances were often considered sacred and were administered under the guidance of experienced healers or shamans.

In the mid-20th century, psychedelics entered Western medicine and psychology. During the 1950s and 1960s, researchers explored their potential in treating mental health conditions, including alcoholism and depression. However, the widespread recreational use of psychedelics during the counterculture movement led to social and political concerns, resulting in strict legal restrictions and the classification of many psychedelics as controlled substances. This regulatory shift significantly hindered scientific research for several decades, creating a gap in systematic clinical investigation despite earlier promising findings.

Renewed Scientific Interest in Psychedelic Therapy

In the past two decades, there has been a resurgence of scientific and clinical interest in psychedelic therapy, often referred to as the “psychedelic renaissance.” Advances in neuroscience, improved research methodologies, and changing societal attitudes toward mental health have contributed to this renewed focus.

Modern clinical trials have shown promising results, particularly in treatment-resistant depression, PTSD, and end-of-life anxiety. For example, psilocybin-assisted therapy has demonstrated rapid and sustained reductions in depressive symptoms, while MDMA-assisted psychotherapy has shown significant benefits in individuals with PTSD.

Regulatory agencies in some countries have begun to recognize the therapeutic potential of these substances, granting special designations to facilitate research. Despite this progress, psychedelic therapy remains a developing field, requiring further large-scale studies to establish long-term safety, efficacy, and standardized treatment protocols.

Mechanisms of Action of Psychedelics

Psychedelics exert their effects primarily through interactions with the brain’s serotonin system, especially the 5-HT_{2A} receptors. Activation of these receptors leads to altered sensory perception, cognition, and emotional processing. Classic psychedelics such as psilocybin and LSD increase cortical activity and disrupt normal patterns of brain connectivity, allowing for more flexible communication between different brain regions. One important concept is the “default mode network” (DMN), a brain network associated with self-referential thinking and rumination. Psychedelics are believed to temporarily reduce DMN activity, which may help individuals break out of rigid thought patterns commonly seen in depression and anxiety. This process supports increased neuroplasticity, enabling the brain to form new connections and adopt healthier cognitive and emotional patterns. Additionally, psychedelics may enhance emotional processing and facilitate access to suppressed memories or unresolved psychological conflicts, making them particularly useful when combined with psychotherapy.

Neurobiological and Psychological Effects

The neurobiological effects of psychedelics include increased brain connectivity, enhanced neural flexibility, and changes in neurotransmitter activity. Brain imaging studies have shown

that these substances create a more globally interconnected brain state, which may explain the heightened awareness and novel insights often reported during psychedelic experiences.

Psychologically, individuals may experience altered perception of time and space, vivid imagery, and deep emotional responses. Many report a sense of ego dissolution, where the boundaries of the self become less rigid. This can lead to transformative experiences, including increased self-awareness, emotional release, and a re-evaluation of personal beliefs and behaviors. Therapeutically, these effects can help reduce symptoms of depression, anxiety, and trauma by enabling patients to confront and process difficult emotions in a supportive environment. However, the intensity of these experiences also means that proper guidance and supervision are essential to avoid distress or adverse reactions.

Set and Setting: Importance in Psychedelic Therapy

The concepts of “set” (mindset) and “setting” (environment) are fundamental to the safe and effective use of psychedelics in therapy. “Set” refers to the individual’s internal state, including their expectations, mood, personality, and intentions before the experience. “Setting” refers to the external environment, including the physical surroundings, presence of therapists, and overall atmosphere during the session.

A positive mindset and a supportive, controlled setting significantly enhance the likelihood of beneficial therapeutic outcomes. Conversely, a negative mindset or an unsafe environment can increase the risk of anxiety, fear, or distress during the experience.

In clinical practice, considerable emphasis is placed on preparation **sessions**, where patients are guided to develop appropriate expectations and emotional readiness. During the psychedelic session, trained professionals provide support and reassurance. Afterward, integration sessions help individuals make sense of their experiences and apply insights to their daily lives.

Conclusion

In the vast landscape of mental health treatment, the renaissance of psychedelics stands as a beacon of hope and possibility. As we conclude our journey through the realms of history, substances, experiences, clinical trials, and the crucial elements of safety and supervision, one overarching truth becomes apparent: the therapeutic potential of psychedelics is both profound and promising. These substances, once relegated to the fringes of society, now beckon us to reevaluate our understanding of healing and transformation. They offer a unique path into the labyrinth of the human psyche, where profound insights and cathartic experiences await those in need. However, this journey is not without its challenges and ethical considerations. It demands rigorous research, responsible practices, and a mindful approach to ensure the safety and well-being of individuals seeking relief from the burdens of mental illness. As we move forward, it is imperative that the momentum of scientific inquiry and ethical exploration continues to guide our exploration of psychedelics in mental health treatment. Regulatory frameworks must adapt to this evolving landscape, and society must foster an open and informed dialogue about the role of these substances in our collective well-being. The stories

of transformation and healing emerging from clinical trials and therapeutic settings offer glimpses into a future where psychedelics play a pivotal role in the arsenal of mental health care. In the end, our exploration of the therapeutic potential of psychedelics is not merely a journey through chemical compounds and altered states of consciousness; it is a testament to the enduring human spirit's capacity to heal, to transcend, and to find solace in the mysteries of the mind. It is a journey that reminds us that the boundaries of what is possible in mental health treatment are still expanding, and within that expansion lies the promise of hope for countless individuals who seek relief from the shadows of mental illness.

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