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Drugs of Abuse: *Psychedelics and Mental Health*

The psychedelic drug class includes mescaline, psilocybin, dimethyltryptamine (DMT), and D-lysergic acid diethylamide (LSD). Psychedelics have been known to have 'mind-manifesting' or 'soul-revealing' effects. It is likely that these drugs have been used in prehistoric times, particularly for church ceremonies, healing practices, and spiritual ceremonies. By the end of the 1960s, the use of psychedelics shifted and it was being used in medical trials to see if it could help those with non-psychotic and psychotic mental health issues. Trials including patients with depression, anxiety, obsessive, and addictive disorders showed promise for psychedelics having therapeutic potential and a low risk of toxicity. However, research came to a halt when psychedelics were classified as Schedule I drugs. This schedule means that it has no accepted medical use and the maximum potential for harm and dependence[1]. Although this may be changing soon since scientists are researching the use of psychedelics to treat various mental health illnesses[2].

According to Thomas Anderson, et al. (1970)[3], microdosing psychedelics in comparison to full-dose therapies are showing positive effects on those with depression and anxiety. Microdosing refers to the practice of consuming very low doses of psychedelic substances such as LSD or psilocybin rather than taking a full dose of these drugs. While full-dose therapies may lead to perception-distorting properties, microdosing therapies can lead to clinical benefits. In this observational study, the control group did not partake in microdosing and were found to

have fewer changes in dysfunctional attitudes, negative emotionality, wisdom, open-mindedness, and creativity. Those participants that did partake in microdosing were found to have lower scores on dysfunctional attitudes and negative emotionality and higher on open-mindedness and creativity. Negative emotionality includes feelings of anxiety, depression, or emotional volatility. These negative emotions are a predictor of mental and physical health problems[3]. This displays a significant difference between those who microdose psychedelics and the non-microdosing control group.

In another study conducted at John Hopkins University, 51 cancer patients underwent a randomized, double-blind, crossover trial to investigate the differences in high dose psilocybin versus low dose psilocybin. Over five weeks, patients were administered a very low, placebo-like dose of psilocybin (1 or 3 mg) or a high dose of psilocybin (22 or 30 mg). After five weeks and a six-month follow-up, those who received a high dose of psilocybin showed better outcomes in anxiety and depression than those who received the placebo. The study also measured death acceptance, to which those on the high dose psilocybin scored higher as well. As shown in this study, it is evident that the psilocybin dose helped with anxiety and depression in cancer patients with a life-threatening diagnosis[4].

A similar study conducted at New York University used niacin as the control rather than the low-dose psilocybin. In this randomized double-blind control trial, 29 patients with cancer-related anxiety and depression were either placed on niacin or single-dose psilocybin in a span of seven weeks. Upon the six and a half-week mark, those that received the psilocybin in this study experienced a decrease in their anxiety and depression, an increased quality of life, and

an improved mood towards death. As in the previous studies, this study displays that the use of psilocybin under the supervision of professionals can reduce anxiety and depression[5].

According to Peter Gasser, et. al, (2014)[6] LSD-assisted psychotherapy has positive and stable outcomes on those with anxiety relating to life-threatening illnesses. 12 patients with anxiety associated with a life-threatening illness were a part of this double-blind, randomized, active placebo-control study. The patients either received 200 μg of LSD (freebase) or 20 μg of LSD (a low dose comparator). After a two-month follow-up, it was found that the patients that received the 200 μg of LSD had a significant decrease in anxiety. This reduction was sustained for 12 months. Thus, it was shown that with medically supervised doses of LSD it is possible to reduce anxiety[6].

In 1960, two psychologists at Harvard, Timothy Leary and Richard Alpert, started The Harvard Psilocybin Project. This project aimed to show the difference between the human mind while on psychedelics. However, in 1963, Harvard fired Leary and Alpert and shut down their research project because they were administering LSD to their students[2,7]. Fortunately, this outcome is no longer the case for researchers today. As stated previously, scientists are now exploring the roles of hallucinogens on treatment-resistant depression, post-traumatic stress disorder, cancer-related anxiety, addictions, and perhaps even anorexia[2]. While this paper only includes depression and anxiety, both cancer and non-cancer related, it is evident that psychedelics have the chance to be a revolutionary drug in pharmacy and medicine alike. Although studies have begun to show promise in the use of psychedelics for mental health illnesses, further studies are warranted in the potential use of these medications.

References

1. Rucker, J. J., Iliff, J., & Nutt, D. J. (2017, December 25). Psychiatry & the psychedelic drugs. Past, present & future. Retrieved from https://www.sciencedirect.com/science/article/pii/S002839081730638X
2. LaMotte, S. (2020, January 27). Psychedelics: Can getting high improve your mental health? Retrieved from https://www.cnn.com/2020/01/24/health/goop-psychedelics-wellness/index.html
3. AD. Adler, D. S., MP. Bogenschutz, A. F., TM. Carbonaro, M. B., RL. Carhart-Harris, L. R., LE. Graaf, J. R., FL. Osório, R. S., . . . Waldman, A. (1970, January 01). Microdosing psychedelics: Personality, mental health, and creativity differences in microdosers. Retrieved from https://link.springer.com/article/10.1007/s00213-018-5106-2
4. Roland R Griffiths, M. W. (n.d.). Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer: A randomized double-blind trial - Roland R Griffiths, Matthew W Johnson, Michael A Carducci, Annie Umbricht, William A Richards, Brian D Richards, Mary P Cosimano, Margaret A Klinedinst, 2016. Retrieved from https://journals.sagepub.com/doi/10.1177/0269881116675513
5. Stephen Ross, A. B. (n.d.). Rapid and sustained symptom reduction following psilocybin treatment for anxiety and depression in patients with life-threatening cancer: A randomized controlled trial - Stephen Ross, Anthony Bossis, Jeffrey Guss, Gabrielle Agin-Liebes, Tara Malone, Barry Cohen, Sarah E Mennenga, Alexander Belser,

Krystallia Kalliontzi, James Babb, Zhe Su, Patricia Corby, Brian L Schmidt, 2016. Retrieved from https://journals.sagepub.com/doi/10.1177/0269881116675512

6. Gasser, P., Holstein, D., Michel, Y., Doblin, R., Yazar-Klosinski, B., Passie, T., & Brenneisen, R. (2014). Safety and Efficacy of Lysergic Acid Diethylamide-Assisted Psychotherapy for Anxiety Associated With Life-threatening Diseases. *The Journal of Nervous and Mental Disease,202*(7), 513-520. doi:10.1097/nmd.0000000000000113
7. Timothy Leary. (n.d.). Retrieved from https://psychology.fas.harvard.edu/people/timothy-leary