

**Psilocybin: A Viable Option for the Treatment of Mental Health Concerns?**

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“Magic mushrooms” have been used in many different ways by many different societies throughout history and within various cultures. In fact, the “most ancient example [...] comes from rock paintings of mushroom effigies found in the Sahara that date back to 7000 BC” (Walsh, 2006, p. 1). The effects of psilocybin (the compound of significance found within magic mushrooms) include dilated pupils, altered heart rate and blood pressure (being somatic effects); an altered sense of time, synaesthesia, and visual hallucinations (being perceptual); and enhanced introspect, decreased depression, and mystical experiences (being psychic) (Fricke, et al., 2019). After the 1960s, psychedelics (hallucinogenic drugs) became associated with counterculture activities and were categorized alongside drugs such as heroin and methamphetamine. In recent years, research has focused on the potential effects psilocybin use could have on mental health concerns. In this paper, I will explore the following research question: “Is the use of psilocybin (as a mental health treatment alternative) medically viable, legally viable, and socially viable at this time?”

In order to best examine this question, I will analyze empirical scientific research, the criminality and stigma around psychedelics, and the spiritual and personal significance “magic mushrooms” can have on individuals and society. For this paper, defining the “viability” of psilocybin as a mental health treatment is approached under the assumption of the definition of “viable” as being “able to work and function as intended” (in this case, “as intended” meaning use as an alternative treatment to traditional antidepressants and SSRIs). By examining current research into the effects of psilocybin on mental health, it becomes clear that the medicinal use of psilocybin is a viable option for the treatment of various mental health

concerns. However, the legal limitations and associated stigmas need to be addressed to make further research and wider accessibility possible.

The current state of legality and research into psilocybin is complicated. For instance, (in the U.K.) Riley & Blackman point out that the Drugs Act 2005 classified magic mushrooms as a Class A drug, having the greatest harm and penalty (2008). However, “the Dutch Coordination Centre for the Assessment and Monitoring of New Drugs rated mushrooms [...] as either no risk or low risk in relation to [...] health of the individual, public health, public order, and criminal involvement” (Riley & Blackman, 2008, p. 56). Although magic mushrooms have little to no objectively negative short- or long-term effects, they are classified amongst highly addictive synthetic drugs that carry risk of overdose. One issue with the fact that “pharmacology earned [psilocybin] both a cult and a stigma” (Fricke, et al., 2019, p. 902) is that it hampers the ability to continue to develop and expand further research. As magic mushrooms were “categorized as a highly addictive drug without medicinal usefulness, research on [psilocybin] was essentially abandoned” (Fricke, et al., 2019, p. 903). The illegality of magic mushrooms makes it difficult to continue further research into the effects of psilocybin.

Clinical research studies into the effects of psilocybin on mental health have concluded repeatedly that psilocybin shows results comparative to (or more effective than) SSRIs or antidepressants. Research has found promising results following psilocybin therapy: neuroticism scores decreased, and extraversion increased (these were both predicted by the degree of insightfulness in exploratory analysis); openness significantly increased; conscientiousness showed trend-level increases; and agreeableness did not change (Erritzoe, et al., 2018). Komater, et al. (2015) found further significance in psilocybin use with an “association of a specific spatiotemporal neuronal mechanism with spiritual experiences and enhanced insight into life and

existence” (p. 3663). The study further states that this “may constitute a pathway for modulating mental health, as spiritual experiences can promote sustained well-being and psychological resilience” (p. 3663). The study also found that through the use of psilocybin, “the increased excitability and disrupted temporal structure of neuronal processes may alter self-referential processes” (p. 3671). The importance of this lies in the fact that these effects led to changes in the relationship to, and unity with, the natural environment (Kometer, et al., 2015). Many scientists have come to the conclusion that psilocybin can have an equivalent clinical effect (compared to traditional medications) on mental health challenges, and yet the effects psilocybin has on personal outlook and human ecology carry further significance. In a sense, the spiritual insight that often comes with psilocybin use can be looked at as more fundamentally psychologically therapeutic, in addition to being psychiatrically and clinically effective.

The results of various studies and forms of research lead to multiple different conclusions and areas of discussion or debate. A study from Erritzoe, et al. (2018) showed “observation of [positive] changes in personality measures after psilocybin therapy was mostly consistent with reports of personality change in relation to conventional antidepressant treatment” (p. 368). Furthermore, this study found that “pronounced increases in extraversion and, in particular, in [o]penness, might constitute an effect more specific to therapy with a psychedelic than with other antidepressant interventions” (Erritzoe, et al., 2018, pg. 375). More simply put, psilocybin not only had an effect on personality consistent with antidepressants, but as well had specific positive therapeutic effects beyond what antidepressants have been shown to do. One interpretation of the reason for this is “that psilocybin-induced spiritual experiences are associated by a reorganization of the self within the global spatial context” (Kometer, et al.,

2015, pg. 3673). This product of psilocybin use cannot be measured easily in comparison to other mental health treatment options, and yet may be among the most important aspects.

However, the challenge with considering psilocybin as a viable and universal treatment for mental health concerns continues to lie in knowledge mobilization that could combat stigmas, as well as research that could offer information regarding the realities and potential outcomes of clinical psilocybin use. In their study, Riley & Blackman found within the general population a pattern of “non-marginalized young adults engaging in infrequent but intense mushroom use” (2008, pg. 65). Since most laws surrounding illegal substances focus on distribution and selling, Walsh (2008) further argues that it would be helpful to see magic mushrooms (in the U.K.) “classified either as a Class B or a Class C drug, to better - though it is submitted, still disproportionately - reflect the dangers involved in their ingestion” (p. 8). In this way, criminal actions surrounding magic mushrooms could be regulated, while incarceration as a result of personal use could be avoided, as much as possible.

The indescribable “spiritual” experiences through psilocybin use are what differentiate psychedelic treatments from traditional options to combat mental health concerns. There is an extensive amount of sociological precedent for this, in the form of thousands of years of ritualized use of naturally occurring psychedelic ingredients. For instance, North American First Nations peoples “considered these mushrooms divine and referred to them as “Flesh of the Gods” (Fricke, et al., 2019, p. 899). Historical evidence of structured ritualized use of magic mushrooms (or other ingredients with psychedelic properties) shows that psychedelic experiences have held societal importance across many different time periods and cultures. Riley & Blackman (2008) point out that one important factor is that “little is known about the contemporary Western patterns and meanings associated with magic mushroom use” (p. 57).

This leads to a paradoxical perception of magic mushrooms and psilocybin in “Western” societies. In order to eliminate stigma and mobilize knowledge surrounding the effective use of psilocybin to combat mental health concerns, research could be broadened in order for more people to be informed about clinical or recreational use of magic mushrooms. However, due to our current societal circumstances, and the potential for people’s magic mushroom use to be viewed as criminal behaviour (a broad topic that can be applied to various social justice issues), research remains limited, and knowledge mobilization is slow. And yet, a change in regulations and restrictive policies are preconditions for research and knowledge mobilization.

Any discussions around the factors of clinical effectiveness, criminality, or the social significance of psilocybin or magic mushrooms are contingent upon other respective factors. For instance, according to Fricke (2019), “[t]he reason to produce [...] a psychotropic compound stems from its (re)discovered therapeutic value” (p. 902). Which makes sense in a historic and cultural context, as mushrooms “have been used by numerous different cultures throughout the ages” (Walsh, 2006, p. 1). However, the legal circumstances around magic mushrooms get in the way of such a reality. Walsh proposes that “a lower classification would make little difference to traders in magic mushrooms [...] though still leaving previously law-abiding citizens subject to prosecution and potential imprisonment” (Walsh, 2006, 10). In this sense, there is a precedent in “Western” society. The use of medical marijuana as a painkiller, anti-inflammatory, and an alternative solution for a variety of other health concerns led to the unofficial and eventually official decriminalization of medical marijuana. That in turn slowly led to various degrees of decriminalization or legalization of medical and recreational marijuana use across North America and Europe. Magic mushrooms seem to be following a similar track. In mainstream media, the publishing of articles related to psilocybin as a clinical option or mushroom ingestion

for therapeutic and/or recreational use have increased. Publications such as *Newsweek*, *The Guardian*, and *CNN Health* have all recently reported on the therapeutic use of psilocybin. Moreover, mainstream magazines (such as *Allure*), YouTube channels, and personal blogs continue to publish information on how to most productively and safely use magic mushrooms. These are promising developments, especially considering future possibilities. Kometer et al. (2015) point out that “it will be interesting to test whether lagged phase synchronization [...] can promote mental health [...] and the reallocation of the self in a global spatiotemporal context” (p. 3673); such studies would most likely lead to broader general knowledge and understanding of psilocybin and magic mushroom uses.

“Is the use of psilocybin (as a mental health treatment alternative) medically viable, legally viable, and socially viable at this time?” It is increasingly clear that psilocybin is a viable treatment option for different mental health concerns. However, perceptions of psychedelic use may still need to evolve before psilocybin can be deployed effectively. There are limitations to the research reflected in this paper (for example, precedent-setting circumstances/studies, the inherent risks of magic mushroom use, and the differences between micro-dosing and large amounts at once). Further research could focus on the comparative importance of mental and physical health to society; the upscaling of psychedelic treatments; and what role large pharmaceutical companies play in regulations, legalities, and options for research. In addition, there are a variety of psychedelic drugs that could have individual clinical uses (LSD, DMT, Ayahuasca, etc.) As things stand, psilocybin has been shown to be a viable option for mental health treatment. The temporary chemical alterations to the human brain have the potential to lead to more insight, introspection, and an increased sense of connectivity to nature and others.

### Works Cited

- Erritzoe, D., Roseman, L., Nour, M. M., Maclean, K., Kaelen, M., Nutt, D. J., & Carhart-Harris, R. L. (2018). Effects of psilocybin therapy on personality structure. *Acta Psychiatrica Scandinavica*, *138*(5), 368–378. doi: 10.1111/acps.12904
- Fricke, J., Lenz, C., Wick, J., Blei, F., & Hoffmeister, D. (2019). Production Options for Psilocybin: Making of the Magic. *Chemistry - A European Journal*, *25*(4), 897–903. doi: 10.1002/chem.201802758
- Kometer, M., Pokorny, T., Seifritz, E., & Volleinweider, F. (2015). Psilocybin-induced spiritual experiences and insightfulness are associated with synchronization of neuronal oscillations. *Psychopharmacology*, *232*(19), 3663–3676. doi: 10.1007/s00213-015-4026-7
- Riley, S. C. E., & Blackman, G. (2008). Between Prohibitions: Patterns and Meanings of Magic Mushroom Use in the UK. *Substance Use & Misuse*, *43*(1), 55–71. doi: 10.1080/10826080701772363
- Walsh, C. (2006). MAGIC MUSHROOMS: *from sacred entheogen to Class A drug*. *The Entertainment and Sports Law Journal*, *4*(1), 3. doi; <http://doi.org/10.16997/eslj.100>



### Works Consulted

Gander, K. (2020, January 28). PSYCHEDELIC MUSHROOMS CAN HELP EASE ANXIETY AND DEPRESSION IN CANCER PATIENTS FOR YEARS, SCIENTISTS BELIEVE. *Newsweek*. Retrieved from <https://www.newsweek.com/psychadelic-mushrooms-anxiety-depression-cancer-1484406>

Jacobs, J. (2019, June 10). 'They broke my mental shackles': could magic mushrooms be the answer to depression? *The Guardian*. Retrieved from <https://www.theguardian.com/science/2019/jun/10/magic-mushrooms-treatment-depression-aztecs-psilocybin-mental-health-medicine>

*The Psychedelic Experience - Mind Field S2 (Ep 2)*. (2017). Retrieved from <https://www.youtube.com/watch?v=U31WVLuc6CE>

Roberts, K. (2019, April 19). Your Guide to Microdosing for Anxiety and Depression. *Allure*. Retrieved from <https://www.allure.com/story/microdosing-ld-mushrooms-anxiety-depression>

Yeung, J. (2019, December 13). 'Magic mushroom' ingredient could be used to treat depression, study says. *CNN Health*. Retrieved from <https://www.cnn.com/2019/12/13/health/psilocybin-magic-mushrooms-depression-intl-hnk-scli-scn/index.html>