



rijksuniversiteit
 groningen

The Attitudes of Mental Healthcare Professionals Towards the Use of Psychedelics in the Treatment of Substance Use Disorders: A Systematic Literature Review

Floor van Dalen

Master Thesis – Clinical Forensic Psychology and Victimology

s5669219

October 2024

Department of Psychology

University of Groningen

Examiner: Irina Masselman

Daily supervisor: Simon Venema

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Abstract

Preliminary data on the efficacy of psychedelics assisted therapy (PAT) in substance use disorder (SUD), show the therapeutic potential of psychedelics. The aim of this review is to explore the attitudes of mental healthcare professionals towards the use of psychedelics in the treatment of SUD. To identify all relevant literature on the attitudes of mental healthcare professionals towards, a search was conducted across six scientific databases: PubMed, MEDLINE, PsychInfo, Academic Search Premier, CINAHL and SocIndex. Databases were searched from their inception until July 31, 2024. Out of the 443 articles identified in the databases, six publications were included in the systematic review. The studies focused on both ‘classic’ psychedelics, (e.g. psilocybin, LSD, ayahuasca, and ibogaine) and ‘modern’ psychedelics (e.g. MDMA and ketamine). Mental healthcare professionals show growing interest in PAT for SUD but remain cautious due to risks like psychiatric disorders and neurocognitive impairment. More education and research PAT for SUD is needed.

Keywords: Substance Use Disorder, Psychedelic-Assisted Therapy, psychedelics, attitudes, mental healthcare professionals

There is a high prevalence of substance use disorders (SUD), with the United Nations Office on Drugs and Crime (2024) estimating 64 million people worldwide to be affected by a SUD. Over the last decade, there has been an increase in SUD related emergency room visits, hospitalizations, and death rates (Agency for Healthcare Research and Quality, 2022; United Nations Office on Drugs and Crime, 2024). Despite these trends, the number of people in treatment for SUD has remained consistently low (Agency for Healthcare Research and Quality, 2022; United Nations Office on Drugs and Crime, 2024). Furthermore, interventions currently available for SUD have high relapse rates (Pisano et al., 2017; Zafar et al., 2023), highlighting the urgent need for novel treatment options. Emerging studies suggest that psychedelic assisted therapy (PAT) may have potential as an effective treatment of SUD (Zafar et al., 2023; Pisano et al., 2017). A crucial aspect in the adoption of novel treatments in SUD care is gaining an understanding of the perspective of mental healthcare professionals on their use as a treatment for SUD, as a positive attitude towards an emerging treatment is a prerequisite for its successful adoption (Connor, 2020).

The efficacy of PAT in general mental healthcare has been recorded in various problems in general mental health care, like mood and anxiety disorders, trauma and stress-related disorders, and even end-of-life care (Reiff et al., 2020; Maia et al., 2022). The treatment of SUD differs from general mental healthcare due to the complex interplay of both mental and physical problems, which require a multidisciplinary approach and expertise in SUD care (Wangensteen & Hystad, 2021) and research on the effectiveness of PAT in SUD treatment is still in its early stages. Preliminary data of these PAT studies show that PAT led to medium to strong reductions in SUD symptoms (de Veen et al., 2016; van der Meer et al., 2023; Santos et al., 2016; Andersen et al., 2020). For instance, PAT seems to lower heavy drinking days for patients with alcohol use disorder (Bogenschutz et al., 2015; Bogenschutz et al., 2022), reduce drug consumption (Garcia-Romeu et al., 2019) and increased the likelihood of abstinence from smoking (Johnson et al., 2016; Johnson et al., 2017).

Currently there is no consensus on how PAT positively affects SUD symptoms. Some have suggested psychedelics improve brain plasticity (de Vos et al., 2021; Rieser et al., 2021) and restore normal functioning in brain networks that are negatively affected by SUD (DeVito & Leger, 2020; Rieser et al., 2021). PAT was found to increase motivation for non-drug related stimuli and reduce compulsive cravings (Koob & Volkow, 2010; DeVito & Leger 2020) as well as reduce rumination and obsession with the substance (Zhang & Volkow, 2019; Buckner et al., 2008). These changes were thought to have resulted from restoration of normal brain functioning by PAT (DeVito & Leger, 2020; Rieser et al., 2021). Others have

suggested a psychological mechanism that is based on the premise that individuals who report a more intense mystical-type experience (i.e. a profound, transcendent state characterized by a sense of unity, timelessness, and a deep emotional or spiritual insight) (van der Meer et al., 2017; Rieser et al., 2021) during PAT tend to experience more significant and lasting changes in SUD symptoms (Griffiths et al., 2017), like improved outcomes in alcohol use disorder (Bogenschutz et al., 2015). PAT appears to work by invoking these psychological processes and deep emotional experiences (de Rios et al., 2002), which explains the broad impact on mind and behaviour in various SUD's (Rieser et al., 2021) and different mental health problem, like reducing symptoms of PTSD and depression (Reiff et al., 2020). This contrasts with traditional medications that target specific SUD's through specific biochemical mechanisms (Griffiths et al., 2017; van der Meer et al., 2023).

The perspectives of mental healthcare professionals towards PAT have shifted substantially overtime. Early studies on the therapeutic effects of psychedelics date back to the 1950s and 1960s (Dyck, 2006; Krebs & Johansen, 2012). However, during this period psychedelics became associated as a drug of abuse of and faced stigmatization by the public and mental healthcare professionals, which led to the United Nations classifying them as a Schedule I drug, which means that a drug has no accepted medical use and high abuse potential. (Belouin & Henningfield, 2018). This caused research into the therapeutic uses of psychedelics to effectively seize during the second half of the 20th century (Zafar et al., 2023). During the last 20 years, however, the attitudes of mental healthcare professionals towards PAT seem to have become more positive, and research has gained momentum again due to changes in regulations and emerging evidence for the therapeutic potential of psychedelics (Ruckner et al., 2018; Zafar et al., 2023). Wells et al. (2024) conducted a systematic review on the attitudes of three stakeholder groups (health professionals, patients, and the public) towards PAT in general mental health, and found that respondents held mixed to optimistic views on PAT.

Despite research indicating the potential efficacy of PAT in treating SUD and optimistic attitudes, the topic remains controversial. In the broader literature on PAT, not just specifically for SUD, much focus has been given to the potential risks and ethical concerns relating to the use of psychedelics (Yaden et al., 2021; Anderson et al., 2020). Wells et al. (2024) found that the most common perceived risks associated with PAT in general mental healthcare are the risk of neurocognitive deficits (i.e. memory deficits and executive dysfunction) and subsequent psychiatric disorders (i.e. psychosis and hallucinogen-persisting perception disorder), difficulties in reducing all potential harm, and ethical challenges.

However, research on the risks of PAT show that, on a population level, the use of psychedelics is not associated with increased levels of mental health problems or neurological deficits (Schlag et al., 2022; Bender & Hellestein, 2022). The risk for subsequent psychiatric disorders for psychiatric patients is also unlikely, though slightly elevated compared to healthy subjects (0.18% and 0.08 – 0.09% suffering from subsequent psychiatric disorders, respectively) (de Veen et al., 2016). Thus, the perceived risks of PAT may be exaggerated due to social stigmatization (Johansen & Krebs, 2015), and may, unrightfully, hinder these perceived risks may have an influence on the attitudes of professionals towards the use of PAT.

Positive attitudes of mental healthcare professionals towards novel treatments are a prerequisite to get to an adoption of a novel treatment (Connor, 2020), therefore, it is important to understand and get an insight into the attitudes and beliefs of mental healthcare professionals on the use of PAT in SUD care. Mental healthcare professionals are directly involved in treatment decisions, and their perceptions influence patient perceptions (Hornik-Lurie et al., 2014). If they hold favourable attitudes towards PAT, it is more likely that the patient is offered and accepts PAT as a treatment option. Wells et al. (2024) accumulated the opinions of mental health care professionals towards PAT in general mental health care, this has not been done for PAT as SUD treatment specifically. Therefore, this article explores the attitudes of mental healthcare professionals towards the use of psychedelics in the treatment of SUD by conducting a systematic review of the literature. This may offer a comprehensive understanding on the current knowledge on the attitudes of mental healthcare professionals towards the use of psychedelic treatment for SUD and could. This paper will aim to answer three sub questions:

1. How knowledgeable are mental healthcare professionals about PAT in the treatment of SUD?
2. What are the perceived benefits and appeal of PAT in the treatment of SUD?
3. What are the perceived obstacles and barriers in the adoption of PAT in the treatment of SUD?

Methods

Systematic search

The systematic review was conducted following the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines (Moher et al., 2009). A search string was developed to systematically identify all relevant scientific articles on psychedelics

and the attitudes of mental healthcare professionals. This search string included search terms for various types of mental healthcare providers, attitudes and opinions, both ‘classic’ psychedelics, (e.g. psilocybin, LSD, ayahuasca, and ibogaine) and ‘modern’ psychedelics (e.g. MDMA and ketamine), treatment and SUD. The full search string can be found in Appendix A. The search was conducted across six scientific databases: PubMed, MEDLINE, PsychInfo, Academic Search Premier, CINAHL and SocIndex. A total of 443 records remained after removing duplicates. Databases were searched from their inception until July 31, 2024.

Eligibility criteria & study selection

The review was to articles written in English and published in peer-reviewed journals. Full eligibility criteria are outlined in Table 1. To comprehensively cover all relevant literature, no limitations were placed on methodology, type of SUD, severity of SUD, study setting, or context.

Table 1

Inclusion/exclusion criteria

	Inclusion	Exclusion
Participants	Mental healthcare professional	Medical students
Study Design	Cross sectional, longitudinal	Case studies, reviews
Outcome	Studies focusing on attitudes of mental healthcare professionals towards the use of psychedelics in the treatment of substance use disorders (alcohol or illicit drug abuse)	Studies focusing on the efficacy of the use of psychedelics, studies focusing on the broader topic of (mental) healthcare
Substance of Interest	All psychedelics (modern and traditional)	
Publication	Peer reviewed journal articles	Conference abstracts, books, book chapters

The resulting titles and abstract were scanned with ASReview software (van de Schoot et al., 2021), a machine learning based software tool designed to streamline the process of the scanning of extensive literature datasets. A simulation study showed that ASReview was able to identify 95% of the eligible studies after screening between 8% and 33% of the total number of studies (van de Schoot et al., 2021). ASReview ranks articles based on the prior decisions of the researcher to include or exclude articles from the search, presenting the most relevant records first. As each decision is made, the model is updated, and the remaining records are ranked by relevance. According to existing guidelines, titles and abstracts were screened until 50 records were labelled as irrelevant. After this point, the probability of finding other relevant studies in the remaining literature is slim (van de Schoot et al., 2021). This point occurred after scanning 15.6% of all records.

After screening the remaining records for relevance, a total of 17 full texts were assessed for eligibility. A total of 11 articles were excluded for the following reasons: no focus on SUD ($n = 9$), incorrect publication type (i.e. a conference abstract) ($n = 1$), and incorrect study design (i.e. a review; $n = 1$). Ultimately, a total of six publications were included in the systematic review. The search procedures are illustrated in the PRISMA flowchart shown in Figure 1, which can be found in Appendix B.

Data extraction

For the data extraction the full text of each selected article was retrieved, and its relevant outcomes organised in an Excel spreadsheet according to location, population, methodology, psychedelic type, outcome measures and main findings. In the analyses, the main findings were classified across three categories corresponding to the research questions: 1) how knowledgeable are mental healthcare professionals about PAT in the treatment of SUD, 2) what are the perceived benefits and appeal of PAT in the treatment of SUD, 3) what are the perceived obstacles and barriers in the adoption of PAT in the treatment of SUD?

Results

Overview literature

The methodological approaches of the six included studies cross-sectional survey studies and one also employed a focus group. Both ‘classic’ and ‘modern’ psychedelics were questioned. Specifically, three studies focused on the attitudes of mental healthcare professionals towards serotonergic psychedelics (i.e. psilocybin and LSD) and three addressing attitudes towards both serotonergic and non-serotonergic psychedelics (i.e. ketamine and MDMA). The healthcare professionals surveyed included psychiatrists, psychologists, psychoanalysts, and internal and family medicine specialists. Respondents

were recruited from various healthcare organisations across the United States. Most of the research, five out of six studies, was conducted in the United States, while one study was conducted in the United Kingdom. See Table 2 for a detailed overview of the characteristics of the included studies, which can be found in Appendix C.

Study outcomes

In 2023, Kim and Suzuki conducted a study in the United States, where they assessed the attitudes of addiction specialists towards PAT using a self-constructed questionnaire. The study included 145 respondents, all active in SUD treatment, and were recruited from the American Academy of Addiction Psychiatry and Accreditation Council for Graduate Medical Education via email. Additionally, individuals were asked to forward the survey to fellow professionals active in SUD care. The survey responses were analysed with descriptive statistics to describe the survey responses, and a multivariate logistic regression was used to assess possible predictors of attitudes of mental healthcare professionals towards PAT.

In general, the respondents held positive attitudes towards PAT, with 63.5% agreeing that PAT show promise in helping individuals with a SUD and 82.1% agreeing for psychiatric disorders. The study showed that familiarity with the scientific literature on psychedelics was the strongest predictor of positive attitudes toward their use. A sizable minority of the respondents (37.9%) expressed concern for the addictive potential of psychedelics. The concern for the addictive potential was a strong negative predictor of belief in the potential of PAT, and a similar portion (36.6%) held a greater concern for ‘modern’ psychedelics compared to ‘classic’ psychedelics. Additionally, a comparable amount (33.8%) of the respondents indicated greater concern for the risks of psychedelics in the treatment of SUD’s compared to other psychiatric disorders. The overall attitudes did not differ between psychiatrists and non-psychiatrist, though psychiatrists are more comfortable to discuss the option of PAT with their patients.

A study by Barnett et al. (2022), conducted in the United States, assessed the knowledge and opinions of psychiatrists on psychedelics. The questionnaire was distributed to psychiatrists attending two professional conferences about PAT ($N = 106$). The survey responses were analysed with descriptive statistics to describe the survey responses, and multivariate logistic analyses were used to assess potential predictors of attitudes of mental healthcare professionals towards PAT.

The questionnaire had eight questions assessing the psychedelic knowledge of mental healthcare professionals, with respondents having a mean score of 4.21 ($SD = 1.84$, range: 0-8). In general, respondents expressed moderate or strong belief in the potential of PAT for

SUD's (59.8%) and psychiatric disorders (80.39%). The vast majority (90.20%) believed that PAT research should be funded by the U.S. government. For the legislation of psychedelics there was a majority (69.91%) that strongly or moderately agreed that the medical use of psychedelics should be legalised. However, for the recreational use of psychedelics most respondents (44.12%) strongly or moderately disagreed that psychedelics should be legalized. The most common concerns that respondents expressed in this survey were the lack of trained PAT providers (63.4%), the logistics of the delivery of PAT sessions (56.73%), and the administration of PAT in patients with contraindications (56.73). About a third of the respondents (27.88%) indicated concerns about the addictive potential of psychedelics. Multivariate logistic regression showed that positive attitudes of mental healthcare professionals towards the use of PAT for SUD's and psychiatric disorders were positively associated with working primarily in research and higher scores on the knowledge questions about psychedelics. The concern about the addictive potential of psychedelics was negatively associated with the attitudes of mental healthcare professionals.

In the United, Barnett et al. (2024) conducted a follow-up study to Barnett et al. (2018) amongst American psychiatrists. The original study by Barnett et al. (2018), did not specify the data on SUD's, and was therefore not included. The study used a 14-item, self-constructed questionnaire, which was approved by the Partners Human Research Committee. Items assessed the beliefs about PAT for psychiatric disorders and SUD's. 131 participants were recruited via email from the member directory of the American Psychiatric Association. Summary descriptive statistics were calculated for each of the variables and Fisher's exact test, two tailed, was used to test for differences between the trainees and attending psychiatrists.

Results show that most of the respondents believe that psychedelics show promise in treating psychiatric disorders (80.9%) and SUD's (60.8%). Most of the respondents also show strong support research into the therapeutic potential of psychedelics for psychiatric conditions and SUD's (93.9% and 80.9%, respectively). About half of the respondents indicated strong to moderate intentions to incorporate PAT in their practice. A minority of the respondents strongly or moderately believed that PAT is unsafe, even under medical supervision; increases the risk for long-term neurocognitive deficits and subsequent psychiatric impairment and disorders; or should be illegal to possess or use recreationally/non-medically. There were no differences between trainees and attending psychiatrists, but younger respondents tended to report greater optimism regarding the potential of PAT and fewer concerns about risks.

Davis et al. (2021) conducted a cross-sectional survey study amongst American psychologists ($N = 366$) about their attitudes and beliefs about PAT. Descriptive statistics were used to analyse demographics and conducted chi-square and t-tests for group differences. They also applied repeated measures ANOVAs to compare perceptions of safety and therapeutic value across different substances. In this study, PAT was compared to medication assisted therapy (MAT).

The majority (64.9%) of the respondents indicated that they did not have a clear understanding of PAT, whereas 52.5% of the respondents indicated that they have a clear understanding of MAT. Respondents held significantly more positive attitudes towards MAT compared to PAT in the treatment of SUD. Less respondents thought of PAT as an acceptable treatment options (22.2%), compared to MAT (76.3%). Likewise, respondents were less inclined to be open to their patients engaging in PAT (22.2%) than they were towards patients using MAT (74.5%). Respondents also thought of PAT to be less reasonable (14.6%) than MAT (80.1%) as a treatment approach and thought PAT to be less effective (8.7%) than MAT (39.8%). A large portion of the respondents (76.2%) indicated that there might be disadvantages to the use of PAT. The risks indicated by respondents were subsequent psychiatric disorders (47.9%) and neurocognitive impairment (34.6%). Interestingly, most of the participants (43.5%) indicated that they were only 'somewhat' familiar with the risks and benefits of psychedelic use. Participants did support further research into PAT (84.7%) and believed that supervised use of psychedelics was not unsafe (55.4%).

A study conducted by Kraiem et al. (2024) studied the attitudes of psychoanalysts ($n = 130$) in the United States towards PAT. Participants were recruited from various institutes across the United States. Descriptives statistics were calculated for each variable, independent t-tests were used to compare those with and without experience with psychedelics and to test the difference in attitudes across gender.

In general, respondents indicated that they had a clear understanding of PAT ($M = 3.42$) and were cautiously favourable towards PAT as an acceptable treatment ($M = 3.51$), PAT showing promise in the treatment of psychiatric disorders ($M = 4.04$). Participants were less optimistic about PAT being a reasonable approach for alcohol use disorder ($M = 2.84$), nicotine use disorder ($M = 2.78$), and opiate use disorder ($M = 2.51$). When respondents were asked the same question for major depressive disorder, they held more positive attitudes ($M = 3.31$). Respondents tended to slightly disagree that PAT increased the risk for subsequent psychiatric disorders ($M = 2.69$) and neurocognitive impairment ($M = 2.31$), and that psychedelics are unsafe under medical supervision ($M = 1.68$). Respondents strongly agreed

that PAT should be studied further for treatment of psychiatric disorders ($M = 4.56$).

One study conducted in the United Kingdom, by Page et al (2021), used a mixed methods approach. The study employed both a cross-sectional survey and focus groups to assess the attitudes of psychiatrist ($N = 323$) towards PAT. Participants were recruited from the NHS. The survey data were divided into three age groups (i.e. ≤ 34 , 35-54, ≥ 55 years) and analysed with basic descriptive statistics. Participants were invited to partake in the focus groups in the survey. Researchers developed a schedule for the groups and the resulting transcripts of the groups were analysed with Thematic Analysis.

The results from the survey show that while all respondents had heard of at least one type of psychedelics substance, most (60.2%) were not familiar with its therapeutic use. Overall, most psychiatrists indicated that they felt unprepared to discuss PAT with patients (51.5%), prescribe psychedelics for PAT (58.0%), act as a guide in a PAT session (64.0%), or to support psychologists to deliver PAT (53.0%). Most psychiatrists did want to refer patients for PAT (45.0%). From the focus groups three themes emerged. Psychiatrist expressed a need for more knowledge and a firmer evidence base. They also expressed optimism towards PAT having potential as a treatment for patients for whom little else had worked, like those with SUD. Lastly, psychiatrist expressed uncertainty about their role in the delivery of PAT, the potential risks, and the potential limitations of the government to adapt to PAT.

Discussion

Currently research on PAT in relation to SUD is still in its early stages and little is known about the attitudes of mental healthcare professionals regarding this treatment. This systematic review explored the attitudes of mental healthcare professionals towards PAT in the treatment of SUD and aimed to answer three key questions: 1) how knowledgeable are mental healthcare professionals about PAT in the treatment of SUD, 2) what are the perceived benefits and appeal of PAT in the treatment of SUD, and 3) what are the perceived obstacles and barriers in the adoption of PAT in the treatment of SUD?

In relation to the three questions, three main conclusions follow. First, most of the mental healthcare professionals expressed limited knowledge about the therapeutic applications of psychedelics. Second, mental healthcare professionals were cautiously favourable towards the use of PAT in SUD treatment and recognised the potential of PAT in treating SUD's. Lastly, respondents indicated concerns about the risk of long-term neurocognitive deficits, subsequent psychiatric disorders and the addictive potential of psychedelics.

The studies assessing the psychedelic knowledge of mental healthcare professionals, showed that psychedelic knowledge was generally low. Psychedelic knowledge being

generally low in mental healthcare professionals is consistent with what Wells et al. (2024) found in their systematic review on PAT in general mental healthcare. In other novel treatment modalities, knowledge also tends to be low (Stern et al., 2015). Studies showed that those who were familiar with the scientific knowledge on psychedelics tended to hold more favourable attitudes towards PAT in SUD treatment (Kim & Suzuki, 2023), whereas studies where respondents were unfamiliar with the scientific knowledge, there were more concerns with the associated risks (Davis et al., 2021; Kim & Suzuki, 2023; Page et al., 2021). Additionally working primarily in research was found to have a positive influence on mental healthcare professionals' attitudes towards PAT (Kim & Suzuki, 2023; Barnett et al., 2022). This would explain the discrepancy between the perceived risks of PAT that mental healthcare professionals expressed (Davis et al., 2021; Kim & Suzuki, 2023; Barnett et al., 2022) and the findings of research on the risks of PAT (Bender & Hellestein, 2022).

The generally cautiously favourable attitudes of mental healthcare professionals towards PAT in the treatment of SUD are broadly in line with what Wells et al. (2024) found in general mental healthcare. It was found that personal experience with psychedelics positively influenced attitudes of professionals (Kraiem et al., 2024). However, in a sample of psychoanalysts, respondents found PAT acceptable for psychiatric disorders, they were apprehensive towards PAT being used for SUD (Kraiem et al., 2024). This finding was interesting, as PAT and psychoanalytic theory share similar psychological mechanisms. In PAT, mystical experiences evoke deep emotional states (van der Meer et al., 2017; Rieser et al., 2021), which may help integrate conflicting self-states, paralleling psychoanalysis's focus on resolving internal conflicts to reduce suffering (Guss, 2022). This apprehension towards PAT for SUD, in comparison with psychiatric disorders, was also found in a lesser degree by Kim and Suzuki (2023) in SUD specialists.

Davis et al. (2021) also found that in comparison with MAT, PAT was found to be less acceptable and effective in SUD treatment by mental healthcare professionals. This reserved attitude reflects historical apprehensions associated with PAT (Belouin & Henningfield, 2018) and the focus in scientific literature on the risks associated with PAT (Yaden et al., 2021; Anderson et al., 2020). Negative predictors for the attitudes towards PAT included the concern for the addictive potential of psychedelics (Kim & Suzuki, 2023; Barnett et al., 2022) and the number of years working in mental healthcare (Kim & Suzuki, 2023). This trend, of 'newer' professionals being more optimistic towards PAT, is also reflected in the attitudes of medical students. A study exploring the attitudes of medical students towards PAT showed that the vast majority (78.6%) agreed that psychedelics have therapeutic potential (Li et al.,

2023).

The risks identified in this literature review were similar to those described by Wells et al. (2024). Mental healthcare professionals were worried about potential subsequent psychiatric disorders and neurocognitive impairment (Davis et al., 2021), and the addictive potential of psychedelics (Kim & Suzuki, 2023). Additionally, there were concerns about a lack of training among providers of PAT, the logistical challenges of delivering PAT sessions, and the delivery of PAT to patients with contraindications (Barnett et al., 2022). These concerns contradict existing research on the risks of PAT, which indicate that, in general, PAT does not increase the risk of mental health issues or neurological deficits (Bender & Hellestein, 2022).

The attitudes of mental healthcare professionals were all assessed with different outcome measures, though some of the studies did model their instrument after the one Barnett et al. (2018) developed. The instruments used were all comprised of self-constructed instruments that gathered self-reported data. Only one study followed up their questionnaire with a focus group (Page et al., 2021), which allowed for a thorough exploration of the issues that arose in their study on the attitudes of mental healthcare professionals towards PAT. The studies all had large sample sizes, but the study done by Kim and Suzuki (2023) was the only one done on SUD specialists.

Limitations and Future Directions

Though the results of this review enlighten cautiously positive attitudes of mental healthcare professionals towards PAT, it is important to acknowledge its shortcomings. The first being the relatively small number of studies found, as the topic of PAT in individuals with SUD is still relatively new and controversial. Additionally, it is important to note that the included studies, except for one follow-up study, utilized a cross-sectional design, meaning that the attitudes and their development over time could not be tracked. Though the studies modelled the questionnaires after each other's instruments, they used different outcome measures to assess the attitudes of mental healthcare professionals, and the questionnaires used were not validated instruments. These questionnaires also mostly gathered self-reported data on attitudes, which research has shown to have a weak correlation to actual behaviour (Dang et al., 2020). Self-reported data is also susceptible to response style bias (i.e. a tendency to favour certain response options consistently across items) and to some the degree to overconfidence bias (i.e. the discrepancy between subjective confidence in answers and actual performance accuracy) (Tempelaar et al., 2020).

Another limitation was that included studies were, except for one, conducted in the United States. It has been well established that in the United States the historical context of the 'war

on drugs' significantly influenced the stigmatization of the of psychedelics and other substances and research into the topic (Stone, 2022). During this time, the use of substances became a moral issue, with the US increasing punitive measures, law enforcement, and prison sentences for both drug dealers and users (Farber, 2021). This negative historical context of psychedelics likely still negatively contributes towards the attitudes of mental healthcare professionals today. In Europe, on the other hand, drug policies have focussed on harm reduction and public health (Kahn & Kazatchkine, 2024), which may have led to less stigmatisation of psychedelics and perhaps a more open attitude of mental healthcare professionals towards PAT.

Areas for further exploration, could be the attitudes of mental healthcare professionals towards PAT in different countries and could compare the attitudes of different professions within mental healthcare towards PAT. Future studies could also explore the attitudes of patients with SUD towards PAT. Kim and Suzuki (2023) briefly addressed this topic, findings that mental healthcare professionals surveyed indicated that patients would be interested in PAT as a treatment option. Currently, to our knowledge, two studies have been conducted on the topic. Nadeem et al. (2024) found that about a quarter of mental health service users in Australia believed psilocybin to be effective in SUD treatment. Similarly, Corrigan et al. (2021) reported that about 20% of mental health service users in Ireland believed psilocybin could be beneficial for SUD. Prospective studies should also make a clear distinction between different kinds of psychedelics, Kim and Suzuki (2023) found that mental health care professionals were more hesitant towards 'modern' psychedelics than 'classic' psychedelics. Research should also utilise a longitudinal design to get insight into how attitudes of mental healthcare professionals towards PAT change over time. These studies could also investigate whether training in PAT or working with PAT has an influence on the attitudes of mental healthcare professionals towards PAT.

Conclusion

The limited number of studies show that interest of mental healthcare professionals towards PAT as a treatment option for SUD is growing, but that the attitudes remain cautious and that mental healthcare professionals are concerned with risks like subsequent psychiatric disorders and long-term neurocognitive impairment. Knowledge about psychedelics and its therapeutic uses are still lacking. Mental healthcare professionals need education on psychedelics and its therapeutic uses. The logistics of the delivery of PAT also need to be addressed, as well as who is eligible to deliver PAT sessions.

References

References marked with an asterisk (*) indicate studies included in the literature review.

- Andersen, K. a. A., Carhart-Harris, R., Nutt, D. J., & Erritzoe, D. (2020). Therapeutic effects of classic serotonergic psychedelics: A systematic review of modern-era clinical studies. *Acta Psychiatrica Scandinavica*, 143(2), 101–118. <https://doi.org/10.1111/acps.13249>
- Anderson, B. T., Danforth, A. L., & Grob, C. S. (2020). Psychedelic medicine: safety and ethical concerns. *The Lancet Psychiatry*, 7(10), 829–830. [https://doi.org/10.1016/s2215-0366\(20\)30146-2](https://doi.org/10.1016/s2215-0366(20)30146-2)
- *Barnett, B. S., Arakelian, M., Beebe, D., Ontko, J., Riegal, C., Siu, W. O., Weleff, J., & Pope, H. G. (2024). American Psychiatrists’ opinions about classic hallucinogens and their potential therapeutic applications: A 7-Year Follow-Up Survey. *Psychedelic Medicine*, 2(1), 1–9. <https://doi.org/10.1089/psymed.2023.0036>
- *Barnett, B. S., Beaussant, Y., King, F., & Doblin, R. (2022). Psychedelic Knowledge and Opinions in Psychiatrists at two professional conferences: an exploratory survey. *Journal of Psychoactive Drugs*, 54(3), 269–277. <https://doi.org/10.1080/02791072.2021.1957183>
- Barnett, B. S., Siu, W. O., & Pope, H. G. (2018). A survey of American psychiatrists’ attitudes toward classic hallucinogens. *The Journal of Nervous and Mental Disease*, 206(6), 476–480. <https://doi.org/10.1097/nmd.0000000000000828>
- Belouin, S. J., & Henningfield, J. E. (2018). Psychedelics: Where we are now, why we got here, what we must do. *Neuropharmacology*, 142, 7–19. <https://doi.org/10.1016/j.neuropharm.2018.02.018>
- Bender, D., & Hellerstein, D. J. (2022). Assessing the risk–benefit profile of classical psychedelics: a clinical review of second-wave psychedelic research. *Psychopharmacology*, 239(6), 1907–1932. <https://doi.org/10.1007/s00213-021-06049-6>
- Bogenschutz, M. P., Forcehimes, A. A., Pommy, J. A., Wilcox, C. E., Barbosa, P., & Strassman, R. J. (2015). Psilocybin-assisted treatment for alcohol dependence: A proof-of-concept study. *Journal of Psychopharmacology*, 29(3), 289–299. <https://doi.org/10.1177/0269881114565144>
- Bogenschutz, M. P., Ross, S., Bhatt, S., Baron, T., Forcehimes, A. A., Laska, E., Mennenga,

- S. E., O'Donnell, K., Owens, L. T., Podrebarac, S., Rotrosen, J., Tonigan, J. S., & Worth, L. (2022). Percentage of Heavy Drinking Days Following Psilocybin-Assisted Psychotherapy vs Placebo in the Treatment of Adult Patients With Alcohol Use Disorder. *JAMA Psychiatry*, 79(10), 953. <https://doi.org/10.1001/jamapsychiatry.2022.2096>
- Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). The brain's default network. *Annals of the New York Academy of Sciences*, 1124(1), 1–38. <https://doi.org/10.1196/annals.1440.011>
- Butelman, E. R., & Kreek, M. J. (2017). Medications for substance use disorders (SUD): emerging approaches. *Expert Opinion on Emerging Drugs*, 22(4), 301–315. <https://doi.org/10.1080/14728214.2017.1395855>
- Conner, M. (2020). Theory of Planned Behavior. In *Handbook of Sport Psychology* (4th ed., pp. 1–18). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781119568124.ch1>
- Corrigan, K., Haran, M., McCandliss, C., McManus, R., Cleary, S., Trant, R., Kelly, Y., Ledden, K., Rush, G., O'Keane, V., & Kelly, J. R. (2021). Psychedelic perceptions: mental health service user attitudes to psilocybin therapy. *Irish Journal of Medical Science (1971 -)*, 191(3), 1385–1397. <https://doi.org/10.1007/s11845-021-02668-2>
- Dang, J., King, K. M., & Inzlicht, M. (2020). Why are Self-Report and behavioral measures weakly correlated? *Trends in Cognitive Sciences*, 24(4), 267–269. <https://doi.org/10.1016/j.tics.2020.01.007>
- *Davis, A. K., Agin-Liebes, G., España, M., Pilecki, B., & Luoma, J. (2021). Attitudes and Beliefs about the Therapeutic Use of Psychedelic Drugs among Psychologists in the United States. *Journal of Psychoactive Drugs*, 54(4), 309–318. <https://doi.org/10.1080/02791072.2021.1971343>
- De Rios, M. D., Grob, C. S., & Baker, J. R. (2002). Hallucinogens and redemption. *Journal of Psychoactive Drugs*, 34(3), 239–248. <https://doi.org/10.1080/02791072.2002.10399960>
- De Veen, B. T., Schellekens, A. F., Verheij, M. M., & Homberg, J. R. (2016). Psilocybin for treating substance use disorders? *Expert Review of Neurotherapeutics*, 17(2), 203–212. <https://doi.org/10.1080/14737175.2016.1220834>
- De Vos, C. M. H., Mason, N. L., & Kuypers, K. P. C. (2021). Psychedelics and Neuroplasticity: A Systematic review unraveling the biological underpinnings of psychedelics. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.724606>
- DiVito, A. J., & Leger, R. F. (2020). Psychedelics as an emerging novel intervention in the

- treatment of substance use disorder: a review. *Molecular Biology Reports*, 47(12), 9791–9799. <https://doi.org/10.1007/s11033-020-06009-x>
- Dyck, E. (2006). ‘Hitting Highs at Rock Bottom’: LSD Treatment for Alcoholism, 1950–1970. *Social History of Medicine*, 19(2), 313–329. <https://doi.org/10.1093/shm/hkl039>
- Farber, D. (2021). The advent of the war on drugs. In *The war on drugs: A History* (pp. 17–34). NYU Press. <https://doi.org/10.18574/nyu/9781479811359.001.0001>
- Garcia-Romeu, A., Davis, A. K., Erowid, F., Erowid, E., Griffiths, R. R., & Johnson, M. W. (2019). Cessation and reduction in alcohol consumption and misuse after psychedelic use. *Journal of Psychopharmacology*, 33(9), 1088–1101. <https://doi.org/10.1177/0269881119845793>
- Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., Jesse, R., MacLean, K. A., Barrett, F. S., Cosimano, M. P., & Klinedinst, M. A. (2017). Psilocybin-occasioned mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors. *Journal of Psychopharmacology*, 32(1), 49–69. <https://doi.org/10.1177/0269881117731279>
- Guss, J. (2022). A Psychoanalytic Perspective on Psychedelic experience. *Psychoanalytic Dialogues*, 32(5), 452–468. <https://doi.org/10.1080/10481885.2022.2106140>
- Hearn, B. G., Brubaker, M. D., & Richardson, G. (2022). Counselors’ attitudes toward psychedelics and their use in therapy. *Journal of Counseling and Development*, 100(4), 364–373. <https://doi.org/10.1002/jcad.12429>
- Hornik-Lurie, T., Lerner, Y., Zilber, N., Feinson, M. C., & Cwikel, J. G. (2014). Physicians’ influence on primary care patients’ reluctance to use mental health treatment. *Psychiatric Services*, 65(4), 541–545. <https://doi.org/10.1176/appi.ps.201300064>
- Johansen, P., & Krebs, T. S. (2015). Psychedelics not linked to mental health problems or suicidal behavior: A population study. *Journal of Psychopharmacology*, 29(3), 270–279. <https://doi.org/10.1177/0269881114568039>
- Johnson, M. W., Garcia-Romeu, A., & Griffiths, R. R. (2016). Long-term follow-up of psilocybin-facilitated smoking cessation. *The American Journal of Drug and Alcohol Abuse*, 43(1), 55–60. <https://doi.org/10.3109/00952990.2016.1170135>
- Johnson, M. W., Garcia-Romeu, A., Johnson, P. S., & Griffiths, R. R. (2017). An online

- survey of tobacco smoking cessation associated with naturalistic psychedelic use. *Journal of Psychopharmacology*, 31(7), 841–850. <https://doi.org/10.1177/0269881116684335>
- Kahn, B., & Kazatchkine, M. (2024). Europe must continue to lead on harm reduction. *Harm Reduction Journal*, 21(1). <https://doi.org/10.1186/s12954-024-01067-x>
- *Kim, A., & Suzuki, J. (2023). Addiction specialists' attitudes toward psychedelics: A National Survey. *the American Journal on Addictions/American Journal on Addictions*, 32(6), 606–609. <https://doi.org/10.1111/ajad.13461>
- Koob, G. F., & Volkow, N. D. (2009). Neurocircuitry of addiction. *Neuropsychopharmacology*, 35(1), 217–238. <https://doi.org/10.1038/npp.2009.110>
- *Kraiem, E., Diener, M., Guss, J., Mavrides, L., & Saban, S. (2024). Psychoanalyst attitudes towards psychedelic-assisted therapy. *Drugs Education Prevention and Policy*, 1–12. <https://doi.org/10.1080/09687637.2024.2359444>
- Krebs, T. S., & Johansen, P. (2012). Lysergic acid diethylamide (LSD) for alcoholism: meta-analysis of randomized controlled trials. *Journal of Psychopharmacology*, 26(7), 994–1002. <https://doi.org/10.1177/0269881112439253>
- Li, I., Fong, R., Hagen, M., & Tabaac, B. (2023). Medical student attitudes and perceptions of psychedelic-assisted therapies. *Frontiers in Psychiatry*, 14. <https://doi.org/10.3389/fpsyt.2023.1190507>
- Maia, L. O., Beaussant, Y., & Garcia, A. C. M. (2022). The Therapeutic Potential of psychedelic-assisted therapies for symptom control in patients diagnosed with Serious Illness: a Systematic review. *Journal of Pain and Symptom Management*, 63(6), e725–e738. <https://doi.org/10.1016/j.jpainsymman.2022.01.024>
- Nadeem, Z., Parker, S., McGovern, H., & Oestreich, L. K. (2024). Attitudes toward psychedelics and psychedelic-assisted therapy among potential mental health service users and the general population in Australia. *Australian & New Zealand Journal of Psychiatry*. <https://doi.org/10.1177/00048674241261779>
- *Page, L. A., Rehman, A., Syed, H., Forcer, K., & Campbell, G. (2021). The readiness of psychiatrists to implement Psychedelic-Assisted psychotherapy. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsyt.2021.743599>
- Pisano, V. D., Putnam, N. P., Kramer, H. M., Franciotti, K. J., Halpern, J. H., & Holden, S. C.

- (2017). The association of psychedelic use and opioid use disorders among illicit users in the United States. *Journal of Psychopharmacology*, 31(5), 606–613. <https://doi.org/10.1177/0269881117691453>
- Reiff, C. M., Richman, E. E., Nemeroff, C. B., Carpenter, L. L., Widge, A. S., Rodriguez, C. I., Kalin, N. H., & McDonald, W. M. (2020). Psychedelics and Psychedelic-Assisted psychotherapy. *American Journal of Psychiatry*, 177(5), 391–410. <https://doi.org/10.1176/appi.ajp.2019.19010035>
- Reimers, T. M., Wacker, D. P., & Cooper, L. J. (1991). Evaluation of the acceptability of treatments for children's behavioral difficulties. *Child & Family Behavior Therapy*, 13(2), 53–71. https://doi.org/10.1300/j019v13n02_04
- Rieser, N. M., Herdener, M., & Preller, K. H. (2021). Psychedelic-Assisted therapy for substance use disorders and potential mechanisms of action. *Current Topics in Behavioral Neurosciences*, 187–211. https://doi.org/10.1007/7854_2021_284
- Santos, R. G. D., Osório, F. L., Crippa, J. a. S., Riba, J., Zuardi, A. W., & Hallak, J. E. C. (2016). Antidepressive, anxiolytic, and antiaddictive effects of ayahuasca, psilocybin and lysergic acid diethylamide (LSD): a systematic review of clinical trials published in the last 25 years. *Therapeutic Advances in Psychopharmacology*, 6(3), 193–213. <https://doi.org/10.1177/2045125316638008>
- Schlag, A. K., Aday, J., Salam, I., Neill, J. C., & Nutt, D. J. (2022). Adverse effects of psychedelics: From anecdotes and misinformation to systematic science. *Journal of Psychopharmacology*, 36(3), 258–272. <https://doi.org/10.1177/02698811211069100>
- Stern, A. P., Boes, A. D., Haller, C. S., Bloomingdale, K., Pascual-Leone, A., & Press, D. Z. (2015). Psychiatrists' attitudes toward transcranial magnetic stimulation. *Biological Psychiatry*, 80(7), e55–e56. <https://doi.org/10.1016/j.biopsych.2015.07.027>
- Stone, B. M. (2022). The War on Drugs has Unduly Biased Substance Use Research. *Psychological Reports*, 003329412211467. <https://doi.org/10.1177/00332941221146701>
- Tempelaar, D., Rienties, B., & Nguyen, Q. (2020). Subjective data, objective data and the role of bias in predictive modelling: Lessons from a dispositional learning analytics application. *PLoS ONE*, 15(6), e0233977. <https://doi.org/10.1371/journal.pone.0233977>
- United Nations Office on Drugs and Crime. (2024). *World Drug Report 2024*. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2024.html>

- Van Der Meer, P. B., Fuentes, J. J., Kaptein, A. A., Schoones, J. W., De Waal, M. M., Goudriaan, A. E., Kramers, K., Schellekens, A., Somers, M., Bossong, M. G., & Batalla, A. (2023). Therapeutic effect of psilocybin in addiction: A systematic review. *Frontiers in Psychiatry, 14*. <https://doi.org/10.3389/fpsyt.2023.1134454>
- Wangensteen, T., & Hystad, J. (2021). A Comprehensive Approach to Understanding Substance Use Disorder and Recovery: Former Patients' Experiences and Reflections on the Recovery Process Four Years After Discharge from SUD Treatment. *Journal of Psychosocial Rehabilitation and Mental Health, 9*(1), 45–54. <https://doi.org/10.1007/s40737-021-00233-9>
- Wells, A., Fernandes, M., & Reynolds, L. (2024). Perceptions and attitudes towards psychedelic-assisted psychotherapy among health professionals, patients, and the public: A systematic review. *Journal of Psychedelic Studies, 8*(1), 43–62. <https://doi.org/10.1556/2054.2023.00294>
- World Health Organization. (2019). *Drugs*. https://www.who.int/health-topics/drugs-psychoactive#tab=tab_2
- Yaden, D. B., Yaden, M. E., & Griffiths, R. R. (2021). Psychedelics in Psychiatry—Keeping the Renaissance from going off the rails. *JAMA Psychiatry, 78*(5), 469. <https://doi.org/10.1001/jamapsychiatry.2020.3672>
- Zafar, R., Siegel, M., Harding, R., Barba, T., Agnorelli, C., Suseelan, S., Roseman, L., Wall, M., Nutt, D. J., & Erritzoe, D. (2023). Psychedelic therapy in the treatment of addiction: the past, present and future. *Frontiers in Psychiatry, 14*. <https://doi.org/10.3389/fpsyt.2023.1183740>
- Zhang, R., & Volkow, N. D. (2019). Brain default-mode network dysfunction in addiction. *NeuroImage, 200*, 313–331. <https://doi.org/10.1016/j.neuroimage.2019.06.036>

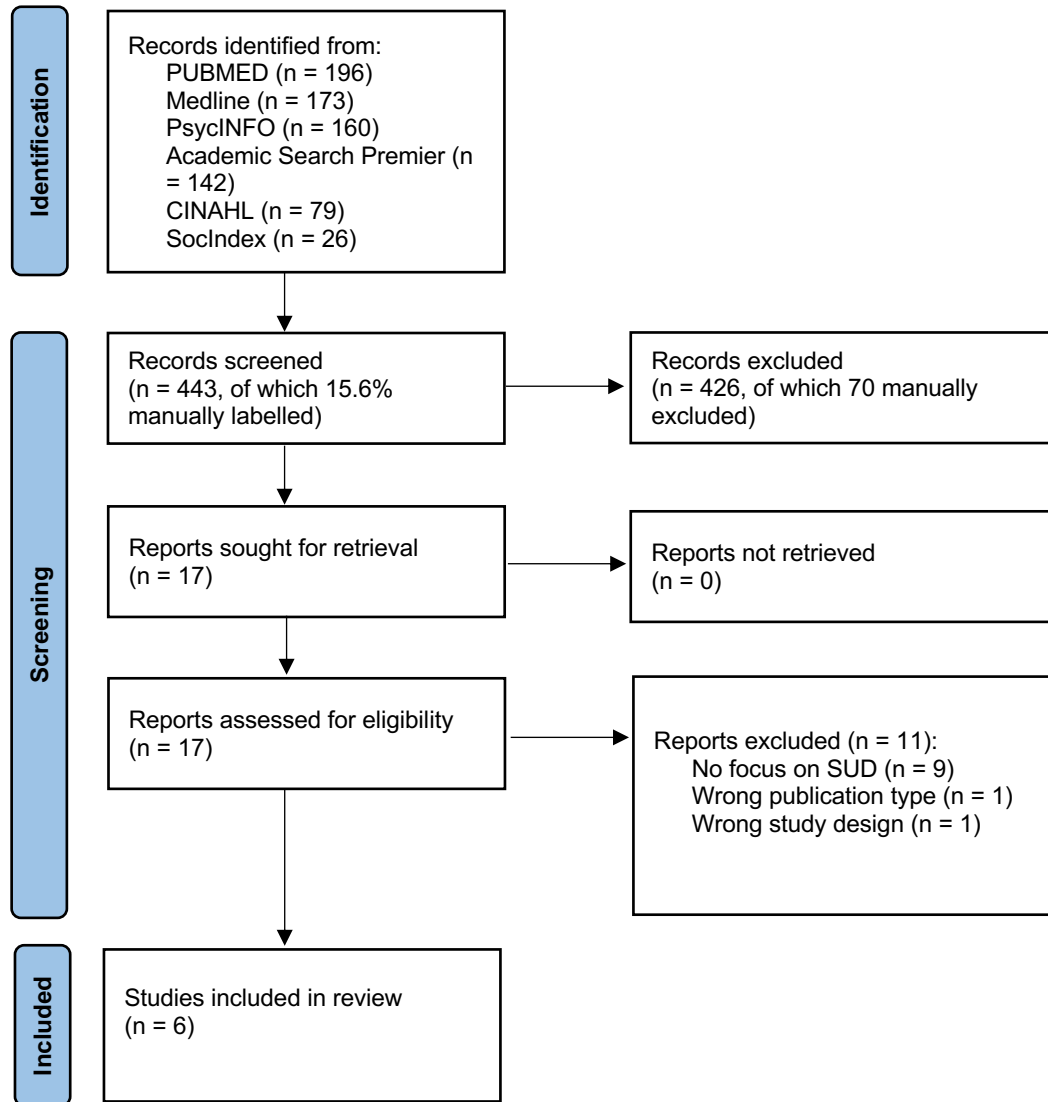
Appendix A – Search String

("mental healthcare worker" OR "mental healthcare professional*" OR "psychiatrist*" OR "psychologist*" OR "clinical psychologist*" OR "nurs*" OR "nurse practitioner*" OR "practitioner*" OR "healthcare practitioner*" OR "sociotherapist*" OR "professional*" OR "clinician*" OR "physician*" OR "medical professional*" OR "doctor*" OR "mental healthcare provider*" OR "health personnel" OR "medical staff" OR "nursing staff" OR "general practitioner*" OR "social worker*" OR "health professional*") AND ("Belief*" OR "perception*" OR "view*" OR "attitude*" OR "perspective*" OR "stance*" OR "opinion*" OR "openness" OR "intention*" OR "thought*" OR "experience*" OR "trust" OR "acceptance" OR "adoption" OR "mindset*" OR "bias*" OR "disposition*" OR "viewpoint*" OR "belief system*") AND ("psychedelic*" OR "psilocybin" OR "psilocybine" OR "indocybin" OR "hallucinogens" OR "serotonergic hallucinogens" OR "microdose" OR "microdosing" OR "microdoses" OR "ayahuasca" OR "hoasca" OR "mescaline" OR "dimethyltryptamine" OR "DMT" OR "peyote" OR "ibogaine" OR "lysergic acid diethylamide" OR "LSD" OR "MDMA" OR "midomafetamine" OR "ecstasy" OR "methamphetamine" OR "methylenedioxymethamphetamine" OR "ketamine" OR "ibogaine" OR "noribogaine") AND ("therap*" OR "treatment*" OR "intervention*" OR "management" OR "program*" OR "approach*" OR "protocol*" OR "regimen*" OR "procedure*" OR "method*" OR "technique*" OR "strategy*" OR "application*") AND ("substance use" OR "substance misuse" OR "addict*" OR "substance abus*" OR "substance use disorder*" OR "SUD" OR "substance dependenc*" OR "drug use" OR "drug misuse" OR "drug abus*" OR "drug dependenc*")*

Appendix B – PRISMA Flowchart

Figure 1

PRISMA flowchart



Note. Manually labelled records are the records that the researcher included or excluded themselves in ASReview.

Appendix C – Overview included studies

Table 2

Overview of included studies

Author, year	Country	Sample Characteristics	Study design	Psychedelic type	Outcome measures	Main findings
Barnett et al. (2024)	United States	Survey of 131 American Psychiatric Association members (53.4% was male). \pm 30% of respondents were in training, 70% were attending psychiatrists.	Cross-sectional survey study	Classic hallucinogens	A 14-item, self-constructed questionnaire, which was approved by the Partners Human Research Committee. Items assessed the beliefs about PAT for psychiatric disorders and SUD's. Each item was answered on a five-point Likert scale ranging from 'strongly disagree' to "strongly agree".	<ul style="list-style-type: none"> - Most respondents recognize the potential of PAT for treating psychiatric disorders and SUD's, and strongly support further research into this area. - Half of the respondents intend to incorporate PAT into practice. - A minority of respondents expressed concerns about long-term neurocognitive deficits, subsequent psychiatric impairment. Younger professionals showed fewer concerns about risks.
Barnett et al. (2022)	United States	Survey of 106 psychiatrists attending psychedelic didactic presentations (64.42% was male, mean age 41.73 (range: 24 – 80)). 63.46% were attending psychiatrist, 25.96% residents, and 10.58% fellows. 87.50% worked in	Cross-sectional survey study	"psychedelic substances such as 5-MeO-DMT (5-methoxy-N,N-dimethyltryptamine), Ayahuasca, DMT (N,N-Dimethyltryptamine), LSD; Psilocybin, and MDMA (3,4-methylenedioxy-methamphetamine)"	A 26-item, self-constructed questionnaire. The items questioned demographics; knowledge about psychedelics; mental healthcare professionals' attitudes towards PAT; and various other questions concerning the legislation of psychedelics and their	<ul style="list-style-type: none"> - Psychiatrists had moderate psychedelic knowledge levels. - Psychiatrist expressed a strong belief in the potential of PAT for SUDs and psychiatric disorders. - A majority supported government funding for PAT research and the legalization of medical psychedelics. - Common concerns included, the

		clinical care, 7,69% worked primarily in research, and 4,81% in administration. 32.69% were fellowship trained in SUD psychiatry, 34.62% had no subspecialty training, and 25% were trained in consultation liaison (C-L) psychiatry.			recreational use. Each item was answered on a five-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’.	addictive potential of psychedelics the lack of trained PAT providers, logistical challenges in delivering PAT sessions, and administering PAT to patients with contraindications.
Davis et al. (2021)	United States	Survey of 366 psychologists. (31% was male, mean age 50.3). On average, respondents had been practicing for 17.4 years and worked with CBT (74%), psychodynamic/analytic (31%), and humanistic/person centred (28%) therapies.	Cross-sectional survey study	Psilocybin	An adapted version of the Treatment Acceptability Rating Form-Revised (TARF-R) (Reimers et al., 1991) was used to assess the level of acceptance of psychedelics. Additionally, items were employed from Barnett et al. (2018, 2024) to assess the general attitudes towards psychedelics and included items about psychedelic knowledge.	<ul style="list-style-type: none"> - Respondents were unfamiliar with PAT and reported limited familiarity with the risks and benefits of psychedelic use. - MAT was viewed as a more acceptable treatment option than PAT, with greater support for patient engagement. - There is strong interest in further research on PAT, and many felt supervised use of psychedelics is not unsafe. - Many respondents expressed concerns about the risk of subsequent psychiatric disorders and neurocognitive impairment.
Kim & Suzuki (2023)	United States	Online survey of 145 SUD specialists (59.3% was male, mean age 46.2). 65.5% was specialized in psychiatry, 12.4% in	Cross-sectional survey study	Nonserotonergic hallucinogens (like ketamine and MDMA) and classic serotonergic psychedelics.	A 30-item, self-constructed questionnaire was used, assessing demographics; mental healthcare professionals’ attitudes towards the therapeutic potential, risks,	<ul style="list-style-type: none"> - The majority viewed PAT as promising for individuals with SUDs and psychiatric disorders. - Respondents who were familiar with the scientific literature on psychedelics

		internal medicine, and 14.5% in 'other. 55.2% was specialized in SUD medicine or psychiatry, the rest reported to work extensively with SUD.			and acceptability of PAT; self-assessed knowledge about psychedelic scientific literature; and exposure to psychedelics.	<p>held more positive attitudes toward PAT</p> <ul style="list-style-type: none"> - Respondents indicated concerns about the addictive potential of psychedelics, which had a negative impacted on the attitude towards PAT. - There was notable concern regarding the risks associated with using psychedelics for SUD treatment compared to psychiatric disorders. - Respondents generally had a clear understanding of PAT and were cautiously favorable towards its acceptability as a treatment for psychiatric disorders, but did not think PAT would be effective as a treatment for SUD. - Participants strongly agreed that further studies should be conducted to explore its effectiveness. - Respondents tended to slightly disagree with PAT increasing the risk of subsequent psychiatric disorders or neurocognitive impairment and psychedelics being unsafe when used under medical supervision.
Kraiem et al. (2024)	United States	Survey of 135 psychoanalysts (27.4% was male, mean age 61.26 (range: 29 – 88)).	Cross-sectional survey study	"psychedelic/hallucinogenic drugs which include synthetic psilocybin or 'magic' mushrooms, peyote, ayahuasca, ibogaine, lysergic acid diethylamide (LSD), and 3,4 methylenedioxymethamphetamine (MDMA or 'Molly')."	A 26-item, self-constructed questionnaire was used, which was developed and adapted from previous studies assessing the attitudes of various mental healthcare professionals towards PAT (Barnett et al., 2022; Davis et al., 2022; Hearn et al., 2022). Each item was answered on a five-point Likert scale ranging from 'strongly disagree' to "strongly agree".	<ul style="list-style-type: none"> - Respondents strongly agreed that further studies should be conducted to explore its effectiveness. - Respondents tended to slightly disagree with PAT increasing the risk of subsequent psychiatric disorders or neurocognitive impairment and psychedelics being unsafe when used under medical supervision.
Page et al. (2021)	United Kingdom	Survey of 83 psychiatrists, 75.9% was either consultant or a specialty doctor and	Cross-Sectional survey	N/A	A self-constructed survey study and focus groups were used.	<ul style="list-style-type: none"> - Most psychiatrists are aware of psychedelics but lack familiarity with their therapeutic applications and feel

<p>24.1% was trainee. Half of the respondents were aged between 35 and 54. 20% was over 54 and 15% was under 34. 55.4% was male and 43.4% female. The most common specialty area of the respondents was Community General Adult Psychiatry, followed by Old Age Psychiatry and Inpatient General Adult Psychiatry.</p>	<p>study and focus groups</p>	<p>unprepared to discuss or prescribe them.</p> <ul style="list-style-type: none"> - Psychiatrists express optimism about the potential of PAT - There is uncertainty among psychiatrists regarding their roles in PAT delivery, the associated risks, and potential governmental limitations in adapting to PAT practices.
--	-------------------------------	---

