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Assessing the Attitudes of Dutch Mental Health Care Professionals Toward Psychedelic-Assisted Psychotherapy: A Cross-Sectional Exploratory Study

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ABSTRACT

Psychedelic-assisted psychotherapy (PAP) constitutes a novel treatment paradigm in mental health care practice that is currently being evaluated for its clinical efficacy and safety. Insight into the attitudes of clinicians toward PAP remains crucial for its successful integration into mental health care. This cross-sectional survey explores the attitudes of Dutch mental health care professionals toward PAP, specifically focusing on 3,4-methylenedioxymethamphetamine (MDMA)-assisted psychotherapy for post-traumatic stress disorder and psilocybin-assisted psychotherapy for major depressive disorder. The study included 198 clinicians who completed a 40-item online survey, distributed between April and May 2022. The study examined clinicians' attitudes toward PAP, the relation between these attitudes and several demographic variables, and clinicians' perceived implementation barriers. Respondents generally exhibited positive attitudes toward PAP, which in turn were related to previous use of either MDMA or psilocybin. Participants believed that psychiatrists and licensed psychologists were the ideal professionals to administer PAP, expressed concerns about their ability to establish a connection with patients during psychedelic states of consciousness, and preferred administering PAP in specialized facilities within hospital settings. This study provides valuable insights into the implementation of PAP and helps informing educational and training programs for clinicians, as well as integrating PAP into mental health care.

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Clinicians' attitudes; implementation; MDMA; Psychedelic-assisted psychotherapy; survey; psilocybin

Introduction

A recent scientific development in mental healthcare is the renewed interest in psychedelic-assisted psychotherapy (PAP), a treatment that synergistically integrates the pharmacotherapeutic properties of a psychedelic substance with psychotherapy (Reiff et al. 2020). Most research has focused on 3,4-methylenedioxymethamphetamine (MDMA) for post-traumatic stress disorder (PTSD) (Mitchell et al. 2021; Mithoefer et al. 2019) and psilocybin for major depressive disorder (MDD) (Goodwin et al. 2022). In research settings, PAP encompasses one to three psychedelic sessions lasting six to eight hours, which are guided by two trained therapists (Goodwin et al. 2022; Mitchell et al. 2021). These sessions are embedded in a larger treatment trajectory, usually accompanied by several non-drug preparatory and integrative therapy sessions (Goodwin et al. 2022; Mitchell et al. 2021).

An increasing number of positive results shown in clinical trials may lead to formal registration of PAP. If PAP would be approved on a global scale, this would bring a paradigm shift for patients, clinicians and managers due to the rigorously different treatment trajectory of PAP compared to regular psychiatric treatments.

Implementing such a new paradigm requires a stepwise approach. An important step in this regard is to understand and gauge the attitudes, beliefs and apprehensions of clinicians toward PAP (Flottorp et al. 2013). This is important for several reasons. First, clinicians play a pivotal role in administering and guiding patients through PAP sessions and, therefore, clinicians' attitudes toward medical treatments will likely influence its implementation significantly (Eilertsen and Eilertsen 2023; Muthukumaraswamy, Forsyth, and Lumley 2021; Rufa et al. 2021). Second, assessing clinicians' attitudes toward PAP allows for the identification of potential barriers (e.g., ethical or logistical), misconceptions, or hesitations that might impede its integration into mental health care practices. Third, understanding clinicians' attitudes and apprehensions toward PAP provides valuable insights into the educational and training needs of clinicians. Ultimately, this knowledge could serve as a foundation for targeted policy development, and for fostering collaboration between clinicians

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and researchers, ensuring the optimal and responsible integration of PAP into practice.

Several survey studies have already contributed to gaining insights into the attitudes of clinicians toward PAP. These surveys have been conducted with samples of psychiatrists (Barnett et al. 2022; Barnett, Siu, and Pope 2018; Page et al. 2021), psychologists (Davis et al. 2022; Meir et al. 2023), counselors (Hearn, Brubaker, and Richardson 2022), and students and heterogeneous groups of mental health clinicians (Kucsera, Suppes, and Haug 2023). Within these studies, attitudes toward PAP were generally positive (Barnett, Siu, and Pope 2018; Davis et al. 2022; Grover, Monds, and Montebello 2023; Hearn, Brubaker, and Richardson 2022; Kucsera, Suppes, and Haug 2023; Page et al. 2021). In addition, one study showed a shift toward positive attitudes toward PAP, after the same survey sample reported slightly negative attitudes seven years before (Barnett et al. 2024; Barnett, Siu, and Pope 2018). Two studies reported that clinicians' respondents' biggest concerns were potential psychiatric and neurocognitive hazards of PAP, and that positive views of psychedelic therapy might foster potential hazardous psychedelic use in recreational settings (Barnett, Siu, and Pope 2018; Davis et al. 2022).

Interestingly, in similar studies conducted with samples of European clinicians, attitudes toward PAP have shown to vary. Within Ireland (Corrigan et al. 2022) and the UK (Page et al. 2021), overall positive attitudes were observed, while mixed attitudes were observed within a German sample (Schmidt et al. 2023), and overall negative attitudes were seen within an Icelandic sample (Ólafsson et al. 2023). The Netherlands presents a unique case in this respect, as the Netherlands has a history of progressive drug policies (Blok, Baenziger, and Walma 2024). As part of this policy, the substances psilocybin and psilocin are prohibited; however, psilocybin-containing truffles are legally available. This has resulted in the establishment of private psilocybin retreat programs, designed to foster spiritual self-development or increase participants' mental well-being, as well as the emergence of an underground circuit of psychedelic therapists (Lutkajtis and Evans 2023). Within the Netherlands, a "grey area" has also emerged where therapists (often without a license) offer psilocybin-assisted therapy by using magic truffles. This might be driven by optimism in response to recent publications about the safety and efficacy of PAP, leading clinicians or retreat guides to administer psychedelic substances to patients with psychiatric conditions-–-a group not deemed eligible to receive PAP by formal regulatory institutions. In addition, Dutch academic hospitals and mental health care institutions have been serving as trial sites for several PAP studies (Goodwin et al. 2022; Mason et al. 2021; Vermetten 2024). As such, the Netherlands provides an interesting testing bed for assessing attitudes, as psychedelic substances and therapy have already become more mainstream and societally accepted.

This study aimed to explore the attitudes of Dutch clinicians toward PAP and its potential implementation by conducting a cross-sectional survey. Specifically, we aimed to measure attitudes toward MDMA-assisted psychotherapy (mPAP) for PTSD and psychedelic-assisted psychotherapy (pPAP) for MDD. Building on earlier implementation research (Flottorp et al. 2013), we subdivided attitudes toward PAP into pre-categorized domains, namely "urgency for novel therapies," "knowledge of effectiveness of PAP," "knowledge of risks of PAP," and "societal objections towards PAP" (see the Methods section for further explanation). We then compared how attitudes toward PAP relate to various demographic variables including age, gender, profession, and earlier use of psychedelics. Ultimately, we aimed to identify potential organizational and logistical implementation barriers to integrating PAP into mainstream mental healthcare.

Methods

Survey sample

Participation in the study was voluntary and anonymous. All participants signed informed consent prior to enrollment. Inclusion criteria were i) being at least 18 years of age, ii) being able to read and write Dutch fluently, and iii) being a mental health care practitioner. Mental health care practitioners included specialized nurses, psychiatrists, psychiatric residents, health care psychologists, psychotherapists, clinical psychologists, and a miscellaneous category consisting of mostly non-licensed psychologists and counselors. A total of 121 participants who did not complete the first section of the survey, assessing the attitudes toward PAP (65% of the total survey), were excluded.

Procedure

Development of the survey

Ethical approval was given by the Psychology Research Ethics Committee of the Psychology Ethics Committee at the Faculty of Social Sciences of Leiden University in April 2022.

Building on earlier survey studies (Barnett, Siu, and Pope 2018; Davis et al. 2022; Page et al. 2021), we designed a cross-sectional online survey. First, our

research team determined which items were deemed relevant to be incorporated into our survey. We did this by critically reviewing the Tailored Implementation for Chronic Diseases (TICD) checklist, a standardized checklist designed to identify potential hurdles for implementing novel medical treatments (Flottorp et al. 2013). All authors individually scored each of the 24 TICD determinants, aiming to select determinants that we deemed to particularly assess clinicians' attitudes toward PAP. Based on these ranking scores, we then generated several domains that collectively defined a general attitude score toward PAP. These domains consisted of "urgency for novel therapies" (urgency) for both PTSD and MDD, "perceived knowledge of effectiveness" of PAP (knowledge of effectiveness) for both PTSD and MDD, "perceived knowledge of risks" for PAP (knowledge of risks) for both PTSD and MDD, and"societal acceptance" of PAP.

Subsequently, we explored impediments to the implementation of PAP (e.g., financial or logistic barriers that hypothetically preclude PAP implementation). encountered by respondents within their individual clinical settings. The TICD was also used for this purpose. For the full survey, see supplemental materials.

Distribution

The survey was distributed to mailing lists of psychiatric departments of academic hospitals, regular hospitals, mental health institutions, an umbrella organization for independent mental health care professionals, and mental health care journals within the Netherlands. We also distributed our survey via both our LinkedIn pages. Data collection took place between April and May 2022.

Measures

Demographics

Demographic data included gender, work setting, age and history of psychedelic use. Personal history of psychedelic use was divided into previous use of MDMA, previous use of psilocybin, and previous use of other popular psychedelic drugs that could be broadly defined as psychedelic substances, including lysergic acid diethylamide (LSD), ayahuasca, 4-Bromo-2,5-dimethoxyphenethylamine (2C-B), and ketamine. To reduce the risk of priming, the survey inquired about the personal history of psychedelic use at the end of the survey instead of at the beginning.

Attitudes towards PAP and MAP

Clinicians' attitudes toward PAP were assessed with 40 items, all using a five-point Likert scale format, with response options mostly ranging from 1 = strongly disagree to 5 = strongly agree. These items were distributed across our predetermined domains (see 2.2.1). We used five items to measure "urgency" for PTSD as well as "urgency" for MDD (e.g., "combined pharmacological-psychotherapeutic treatments are effective enough for PTSD"), three items to measure participants' "knowledge of effectiveness" of mPAP for PTSD and "knowledge of effectiveness" of pPAP for MDD (e.g., "do you think there is a difference in effectiveness between pPAP and common treatments for MDD"), with one additional item assessing "knowledge of effectiveness" applicable to both PAP for PTSD and PAP for MDD ("PAP is a temporary hype that will hardly change psychiatry and/or clinical psychology in its current form"), ten items to measure participants' "knowledge of risks" of mPAP for PTSD as well as "knowledge of risks" of pPAP for MDD (e.g., "how do you think these risks [of PAP] relate to common treatments for PTSD," with response options ranging from 1 = much smaller to 5 = much bigger, and three items to measure "societal acceptance" (e.g., "the exercise of PAP will lead to an increase in drug use in society," with 1 = completely agree to 5 = completely disagree). For the full survey, see our supplementary materials online.)

Perceived implementation barriers addressed by our survey sample

The second part of our survey, assessing clinicians' perceived implementation barriers of PAP, was designed with both multiple choice and open items. This section included seven items, with examples being: "What challenges do you expect when conducting PAP" and "Do you see implementational objections when setting up psychedelic-assisted psychotherapy at the institution where you work? If so, what objections do you see?."

Data analysis

Assessing clinicians' attitudes towards PAP

We reverse-coded scores such that each item was coded as 1 = strongly opposing PAP and 5 = strongly favoring PAP. To ensure a sufficient number of participants per sub-group, we clustered "residents in psychiatry" and "psychiatrists" into "physicians," and we clustered "health care psychologists," "clinical psychologists," and "psychotherapists" into "licensed psychologists."

An exploratory factor analysis was performed with the aim of examining the extent to which the items positively loaded on the expected factor (see supplementary materials). Two items ("How positive/negative would you estimate the attitudes toward mPAP in patients with PTSD?," and "How positive/negative would you estimate the attitudes toward pPAP in

patients with MDD?") did not load positive on the expected domain ("knowledge of effects"), and were therefore excluded, leaving 38 items for our analysis.

To obtain a total attitude score (TAS), the main outcome variable of this study, we added the sum scores of all 38 items, divided by the number of scored items and ranged between 1 = strongly opposing PAP to 5 = strongly favoring PAP. This TAS score was then compared between specific demographic groups, using ANOVA (gender, profession and history of psychedelic use) and using a simple linear regression with "age"as predictor variable and TAS as dependent variable. Age was also made an ordinal variable by distinguishing five age groups (see Figure 2d) and the effects of age were also tested using an analysis of variance (ANOVA).

A subdomain score was obtained by adding the sum scores of every item per subdomain divided by the number of scored items (five for assessing "urgency" for PTSD, ten for assessing "knowledge of risks" for MDD, etc.).

Assessing clinician reported specific implementation barriers for PAP

We used descriptive statistics for multiple choice items. In addition, two researchers (MvE & MK) independently assessed the different open-ended responses and identified six different themes. Given the relatively low number of responses, we did not apply a formal qualitative analysis, but selected relevant quotes for each category.

Results

Demographics and background variables

A total of 319 mental health professionals signed informed consent. The total response rate is unknown due to (partial) distribution via LinkedIn. 198 participants completed at least 65% of the survey and were included in the analysis. Demographic information is listed in Table 1. Our survey sample had a mean age of 38.9 years (SD = 9.67) and included 128 females (64.7%). Professions were distributed as follow: 87 physicians (44.0%), subdivided into 54 psychiatrists and 33 psychiatric residents; 58 licensed psychologists (29.3%), subdivided into 35 health care psychologists and 23 clinical psychologists and psychotherapists psychiatric residents; 15 specialized nurses (7.6%); and 38 "other group" professions (19.2%). 114 (57.6%) respondents worked in a mental health care facility. Previous use of MDMA was reported by 106 (53.5%) respondents, while 88 (44.5%) reported previous use of psilocybin.

Attitudes towards PAP

Overall attitudes towards PAP per domain

The overall total attitude score (TAS) toward PAP, including sum scores per domain are shown in Figure 1. The TAS is reported on a scale ranging from 1 = strongly opposing PAP to 5 = strongly favoring PAP. The mean TAS across all domains was 3.5 (SD = 0.40). The TAS of "urgency for PTSD" was 2.8 (SD = 0.54).

The TAS scores for the different sub-domains were as follows: The TAS of "urgency for MDD" was 2.5 (SD = 0.61). The TAS for "knowledge of effectiveness for PTSD" was 3.6 (SD = 0.64) and "knowledge of effectiveness for MDD" was 3.6 (SD = 0.67). The TAS of "knowledge of risks" of mPAP for PTSD" was 3.7 (SD = 0.53) and "knowledge of risks" of pPAP for MDD was 3.7 (SD = 0.53). The TAS for "social acceptance of PAP" was 4.5 (SD = 0.76). Correlations between the TAS for these domains, as well as between the domains and previous

Table 1. Demographic data of survey participants and prior psychedelic use.

Characteristics	M(SD) or number (%)	Characteristics	%
Age	38.9 (9.7)	**Previous use MDMA**	
Gender		Never	84 (42.4)
Female	128 (64.7)	1–5 times	41 (20.7)
Male	66 (33.3)	5–20 times	46 (23.2)
Non-binary	2 (1.0)	>20 times	19 (9.6)
Transgender	1 (0.5)	Did not want to say	6 (3.1)
Other	1 (0.5)	Missing	2 (1.0)
Profession		**Previous use psilocybin**	
Physician	87 (44.0)	Never	103 (52.0)
Psychiatrist	54 (27.3)	1–5 times	61 (30.8)
Psychiatric resident	33 (16.7)	5–20 times	18 (9.1)
Licensed psychologist	58 (29.3)	>20 times	9 (4.6)
Health care psychologist (trainee)	35 (17.7)	Did not want to say	5 (2.5)
Clinical psychologist or psychotherapist	23 (11.6)	Missing	2 (1.0)
Specialized Nurse	15 (7.6)	**Previous use other psychedelics**	
Other	38 (19.2)	Ketamine	
Work setting		LSD	48 (24.4)
Mental health care institution	114 (57.6)	2-CB	41 (20.7)
(Academic) Hospital	52 (26.5)	Ayahuasca	40 (20.4)
Independent	27 (13.7)	Other	17 (8.6)
Other	14 (7.1)	No earlier use	22 (11.2)
			117 (59.1)

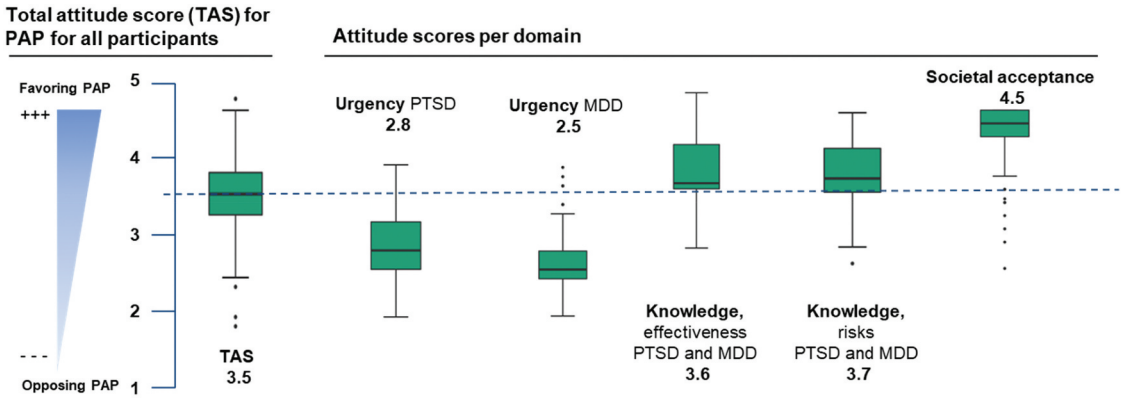

Figure 1. Overall total attitude score (TAS) towards PAP and attitude scores per subdomain. The overall TAS score was calculated as the sum scores of all items divided by the total number of items. A five-point Likert scale was used per item, with 1 = strongly opposing PAP, 5 = strongly favoring PAP. Higher scores reflect attitudes more favorable to PAP. The dotted blue line visualizes the average TAS. The scores of 'knowledge of effectiveness' and 'knowledge of risks' for both PTSD and MDD, respectively, were comparable, and therefore put together in this figure. TAS = overall total attitude score; Urgency PTSD = perceived urgency of new therapies for PTSD; Urgency MDD = perceived urgency of new therapies for MDD; Knowledge, effectiveness, for PTSD and MDD = perceived effectiveness of mPAP for PTSD and pPAP for MDD, respectively; Knowledge, risks, for PTSD and MDD = perceived risks of mPAP for PTSD and pPAP for MDD, respectively; Societal acceptance = societal acceptance of PAP. PTSD = Post-traumatic stress disorder; MDD = Major depressive disorder; PAP = Psychedelic-assisted psychotherapy; mPAP = MDMA-assisted psychotherapy; pPAP = psilocybin-assisted psychotherapy.

use of MDMA and psilocybin, are listed in the supplementary materials.

Overall attitudes towards PAP as a function of demographics

The average TAS as a function of previous use, gender, age, and profession is shown in Figure 2.

ANOVA analyses to test for differences in TAS scores as a function of these demographic variables are reported below.

We found a significant effect of previous MDMA use on the TAS, F (3, 186) = 7.89, $p < .001$, $\eta^2 = 0.13$, suggesting that previous use of MDMA is associated with more positive attitudes toward PAP. Post hoc comparisons using the Tukey HSD test indicated that the mean TAS score for no previous use ($M = 3.35$, SD = 0.39) was significantly lower than for persons with a lifetime MDMA use of 5–20 times ($M = 3.63$ SD = 0.39, $p < .001$, Cohen's $d = -0.72$) and for persons with a lifetime MDMA use of > 20 times ($M = 3.71$ SD = 0.29, $p = .002$, Cohen's $d = -0.92$). However, there was no significant difference between participants with no previous MDMA use and a lifetime MDMA use of 1–5 times ($M = 3.49$ SD = 0.41, $p = .25$).

Similarly, there was a significant effect of history of psilocybin use on the TAS, F (3, 186) = 15.28, $p < .001$, $\eta 2 = 0.21$ suggesting that previous use of psilocybin is also associated with more positives attitude toward PAP. Post hoc comparisons using the Tukey HSD test indicated that the mean score for participants with no previous use ($M = 3.33$, SD = 0.38) was significantly lower than for participants with a lifetime psilocybin use of 1–5 times ($M = 3.59$ SD = 0.38, $p < .001$, Cohen's $d = -0.71$), 5–20 times ($M = 3.77$ SD = 0.23, $p < .001$, Cohen's $d = -1.17$), and > 20 times ($M = 3.90$ SD = 0.30, $p < .001$, Cohen's $d = -1.53$), respectively.

We also found a significant effect of profession on the TAS, F (3, 186) = 7.66, $p < .001$, $\eta 2 = 0.07$. Post hoc analysis revealed a significantly lower TAS amongst physicians (M = 3.34 SD 0.39) compared with "other professions" (e.g. non-licensed psychologists, counselors, pedagogues) (M = 3.71 SD = 0.48, p = <0.001, Cohen's $d = -0.70$), suggesting more negative attitudes toward PAP amongst physicians compared to the group of "other professions." There were no other significant differences between groups of professions

Identifying implementation barriers

Descriptive statistics for the items measuring implementation barriers are represented in Table 2.

Open responses regarding PAP

The supplementary online materials contain the full survey including all open ended responses. Below we provide a short breakdown of the open-ended responses and the themes that we identified.

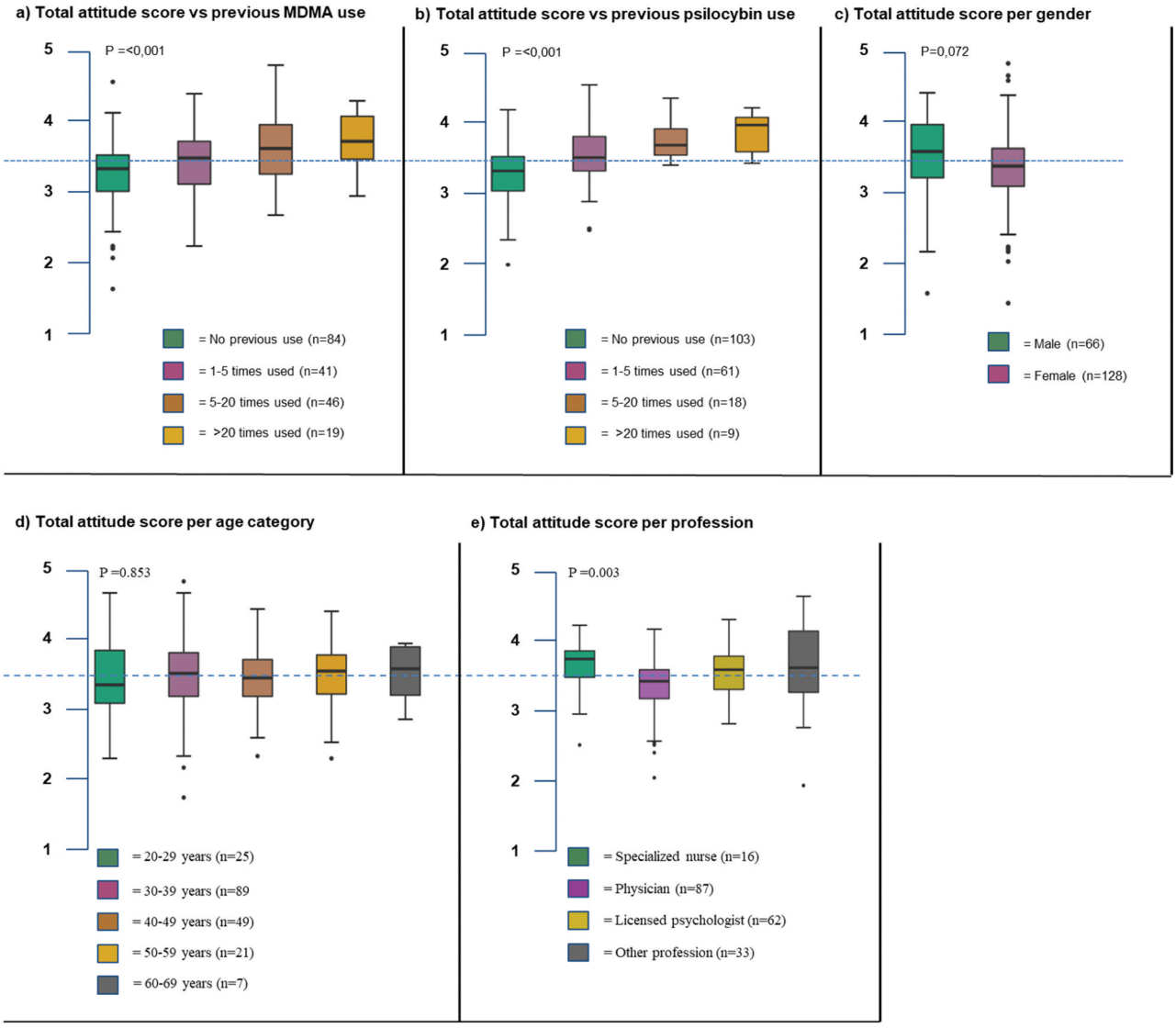

Figure 2. Total attitude score (TAS) towards PAP as a function of demographic variables. TAS per respondent against various demographic variables. The dotted blue line represents the overall TAS (3.5) of the entire sample (see Figure 1). TAS was calculated as the sum scores of all items divided by the total number of items. PAP = psychedelic-assisted psychotherapy. * 8 participants who did not report previous MDMA use were excluded from statistical analysis. ** 7 participants who did not report previous psilocybin use were not taken into statistical analysis. *** 4 participants who reported a different gender than male or female were not taken into statistical analysis.

53 open-ended responses were completed for the item "Do you have any other societal or personal objections to psychedelic-assisted psychotherapy," of which 20 items were identified as objections. 34 responses were completed for the item "What challenges do you expect when giving such therapy." The biggest concern, reported by 13 respondents, concerned serious emotional outbursts during PAP sessions. 11 responses were completed for the item "Do you see implementational objections when setting up psychedelic-assisted psychotherapy at the institution where you work? If so, what objections do you see," of which four respondents saw implementational objections in "insufficient willingness within our board of directors." 44 responses were collected with the item "Do you have any other objections or comments about the effects, risks, societal concerns or implementation of psychedelic-assisted psychotherapy."

Two authors (MK & MvE) identified several major themes identified in the open-ended responses: (1) risk of self-experimentation, (2) need for training, (3) cost-effectiveness, (4) legal/implementation barriers, and (5)

Table 2. Implementational items and respondents' responses associated with implementing PAP.

Survey question	Number of respondents	Survey question	Number of respondents,
Which profession do you consider suitable to practice PAP (regardless of prescribing) (multiple answers possible)?		**If proven effective, where do you think psychedelic-assisted psychotherapy should take place (multiple answers possible)?**	
Psychiatrists	182 (93%)	Special facility within a hospital.	165 (84%)
Licensed psychologists	177 (90%)	Mental health care institution.	101 (52%)
Specialized nurses	128 (65%)	Academic hospital.	93 (48%)
Psychiatric residents	105 (54%)	Retreat center.	52 (27%)
Psychologists without protected title	25 (11%)	Commercial center.	31 (16%)
Other.	22 (11%)		
What challenges do you expect when giving such therapy? (multiple answers possible)?		**Do you see implementation objections when setting up psychedelic-assisted psychotherapy at the institution where you work? If so, what objections do you see (multiple answers possible)?**	
Connecting with individuals who are in an altered state of consciousness.	111 (57%)	Lack of financial space for, for example, training and setting up a treatment room.	73 (37%)
Boredom or fatigue during a psychedelic session.	73 (37%)	Too little skilled staff.	64 (33%)
Collaborating with a co-therapist.	24 (12%)	Under-availability of staff.	53 (27%)
Taking seriously a patient who is under the influence of a drug.	21 (11%)	Logistics, such as the lack of a safe place to store medication, the lack of a treatment room or a lack of time.	51 (26%)
I don't know.	24 (12%)	Lack of medical expertise.	44 (23%)
Other.	17 (9%)	Lack of suitable patients.	10 (5%)
Should PAP prove to be effective, would you like to follow training to become a PAP therapist?		Lack of willingness of patients.	9 (5%)
		In the institution where I work, this is relatively easy to set up.	54 (28%)
Yes		Other.	20 (10%)
No		**Would you like to participate in setting up the infrastructure of psychedelic-assisted psychotherapy in the institution where you work (if this would be proven effective)?**	
Maybe		Yes	129 (66%)
		No	23 (12%)
		Maybe	44 (22%)

challenges related to guiding the patient. We list example quotes for each theme below.

Concerns that excessive optimism about PAP will lead to self-experimentation and uncontrolled proliferation of the underground psychedelic therapy circuit

P49 "I still have doubts about the threshold-lowering effect on people for use outside the session."

P171 "A possible objection to emphasizing the potential therapeutic effect of psychedelics may be that recreational use increases under the guise 'it also helps for. . .."

Concerns about the quality of therapists

P161 "I'm a bit afraid that there will be a proliferation [of psychedelic therapy] when these treatments are approved by the European Medical Agency, by people without relevant training, background, or expertise."

P67 "In my opinion, it is often underestimated how psychotherapeutically skilled therapists need to be and how much is involved, especially in integrating the psychedelic experience."

Concerns about cost-effectiveness and increasing waiting lists within mental health care

P90 "For me, an important consideration remains the likely high cost for the patient or client given the lengthy presence of a practitioner per session. It would be a shame if this became a luxury treatment."

P82 "I would find it undesirable if waiting lists for regular therapies increase because therapists are busy with full-day sessions. I do want us to offer these treatments, but this also requires human and financial space."

Implementational objections and concerns when setting up PAP in respondents' clinical setting

P171 "[There is] insufficient knowledge among our management/board about innovative treatments [within my mental health facility]."

P57 "How do you get substances that are (still) illegal, such as MDMA? And what does that mean for recreational use? And political policy in that area?"

Expected challenges of conducting PAP

Serious emotional outbursts

P57 "How do you prevent bad trips, enormous fears for people who fear they will disappear?"

Somatic adverse events during PAP sessions

P3 "[I have concerns about] patients to vomit during a PAP session."

Challenges with the integration phase

P155 "The integrational phase [of PAP] is heavily underestimated by therapists and patients."

Discussion

In this study, we assessed the attitudes toward PAP among Dutch mental health care professionals. Respondents' attitudes toward PAP were generally positive, with overall attitude scores hovering well above the midpoint on a scale from opposing to favoring PAP. When reviewing the subdomains within our survey, respondents exhibited a slightly negative sense of urgency for novel treatments for both PTSD and MDD, while our participants generally considered PAP an effective treatment with acceptable risks for both PTSD and MDD. Respondents saw few societal objections to PAP.

Attitudes were significantly more positive in respondents with previous use of MDMA and/or psilocybin. The miscellaneous group of predominantly non-licensed psychologists had significantly more positive attitudes toward PAP than physicians. There was no significant effect of gender and age.

We identified several logistical and institutional concerns and hurdles. Our quantitative section revealed that (1) psychiatrists and licensed psychologists were considered best qualified for practicing PAP, (2) the biggest challenge while conducting PAP was thought to be establishing a psychotherapeutic connection with patients with psychedelic states of consciousness, (3) participants indicated that PAP should preferably be conducted in a specialized hospital facility, and (4) the largest implementation barriers were financial resources and skilled staff shortages. Additional concerns collected from open-ended responses included: (1) risk of self-experimentation, (2) need for training, (3) cost-effectiveness, (4) legal/implementation barriers, and (5) challenges related to guiding the patient.

Our findings differ from previous studies that reported slightly negative (Barnett, Siu, and Pope 2018) or polarized attitudes (Beaussant et al. 2020) toward PAP. Previous studies also showed greater concern toward psychiatric and neurocognitive risks associated with PAP (Barnett, Siu, and Pope 2018; Beaussant et al. 2020; Davis et al. 2022), an inverse correlation between age and attitudes toward PAP (Barnett, Siu, and Pope 2018), and more positive attitudes among male respondents (Barnett, Siu, and Pope 2018). In what follows, we reflect on potential explanations for these apparent discrepancies.

Attitudes toward PAP among Dutch clinicians might be generally favorable for several interconnected reasons. A growing body of scientific evidence has accumulated recently, demonstrating the potential efficacy of PAP (Goodwin et al. 2022; Mitchell et al. 2021). This evidence has substantially grown since the first study evaluating clinicians' attitudes showed only 39–55% of psychiatrists with favorable attitudes (Barnett, Siu, and Pope 2018). In addition, positive media attention has increased the societal awareness of psychedelics, potentially further increasing clinicians' positive attitudes (Yaden, Yaden, and Griffiths 2021). Additionally, the Netherlands' liberal drug policy may have fostered a more accepting atmosphere among Dutch clinicians regarding PAP.

However, another potential explanation for the positive attitude scores is selection bias. Approximately half of our participants reported previous use of MDMA and psilocybin. Previous use of psychedelics within our survey sample roughly equals the estimated previous use of MDMA *within the last year*, in Dutch nightlife visitors (53.8%, aged between 16–35 years), but is much higher than the estimated previous use of the entire Dutch adult population (MDMA = 10.1% and psilocybin = 4.6%) (Het Grote Uitgaansonderzoek 2020 - Trimbos-Instituut n.d.). We speculate that the average age and high educational level of our respondents contributed to its high percentage of previous psychedelic use.

The positive association between prior drug use and favorable attitudes may be related to three reasons. First, it is plausible that a personal experience with psychedelics may foster more positive attitudes, as it offers individuals first-person insights into the potential effects of these substances. Conversely, preexisting positive attitudes toward psychedelics may drive participants to explore the use of psychedelics in the first place. Another explanation could be that specific personality traits underlie the observed association, such as a predisposition toward openness to new experiences or a risk-taking inclination (Aday et al. 2021). These personality factors might contribute to both higher probabilities of psychedelic use *and* having a positive attitude toward PAP.

Compared to other attitude domains, participants rated the "urgency" (for novel treatments for both PTSD and MDD) as relatively low. A possible explanation for these low scale scores could be that the items assessing "urgency" actually focused on the

shortcomings of current treatments for PTSD and MDD, with items such as: "combined pharmacological-psychotherapeutic treatments are effective enough for PTSD." Our items therefore did not assess the relative urgency of PAP compared to currently available treatments. Given the positive scores on the other attitude domains, it could be that if we instead had focused on perceived urgency *for PAP* (as a novel treatment for PTSD or MDD), the "urgency" scores for both PTSD and MDD would have been higher.

One of the prominent challenges anticipated by our survey participants is related to establishing a connection with patients who are experiencing psychedelic states of consciousness. Respondents also expressed concerns related to boredom or fatigue during PAP sessions. These concerns underscore the need for education and training of professionals to work with PAP (for discussion, see for instance Timmermann, Watts, and Dupuis 2022). Two-thirds of the respondents expressed an interest in becoming a therapist, in case PAP would be formally and legally available, suggesting that many professionals might be interested to join this therapeutic approach eventually, again underlining the need for training and education programs.

Approximately one-third of the participants highlighted financial concerns and shortage of adequately skilled staff as the primary operational challenges for introducing PAP within their respective institutions. However, around a quarter of the participants perceived PAP as a relatively feasible option within their institutions.

Strengths and limitations

One of the notable strengths of our study lies in the diverse representation of various professions within the mental healthcare field. Consequently, this study provides a comprehensive perspective on attitudes toward PAP among Dutch mental healthcare professionals.

However, several limitations should be acknowledged. First, no standardized measurements were used in our survey. Although the face validity of our questions was high and the statistical validity of our scales was confirmed in an exploratory factor analysis, we lack a formal evaluation of the construct validity of the items we used. Recently, a Croatian research group recently published a European study investigating attitudes toward PAP among clinicians, using the so-called Attitudes on Psychedelics Questionnaire (APQ), which was recently validated in English. This APQ might be valuable for acquiring more robust data, as well as comparing outcomes between different European countries (Žuljević et al. 2022, 2024). Second, the overall response rate to our survey remains unknown, making it impossible to assess the representativeness of our sample. Third, it could well be that participants with preexisting positive attitudes toward psychedelics might be more inclined to participate in our survey in the first place (van Elk and Fried 2023). This self-selection process introduces selection bias, thereby limiting the generalizability of our findings to the broader population (albeit the same concern also applies to previously published studies on this topic). Fourth, it is essential to emphasize that our study was primarily exploratory and descriptive in nature. It does not confirm causal relationships or establish definitive conclusions. Instead, it serves as a valuable tool for the initial exploration of attitudes toward PAP and the identification of potential implementation barriers in Dutch mental health care. Further research is needed to validate and extend these preliminary findings, specifically to determine the extent these findings generalize to other countries and cultural contexts.

Abbreviations

FDA	Food and Drug Administration
LSD	Lysergic aAcid Diethylamide
MDD	Major dDepressive Disorder
MDMA	3,4-mMethylenedioxymethamphetamine
mPAP	MDMA-aAssisted Psychotherapy
PAP	Psychedelic-aAssisted Psychotherapy
pPAP	Psilocybin-Assisted pPsychotherapy
PTSD	Post-tTraumatic Stress Disorder
TAS	Total aAttitude Score per respondent

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Data availability statement

The data that support the findings of this study are openly available in Koolen, Martijn (2024), "Exploring the Attitudes of Dutch Mental Health Care Professionals toward Psychedelic-Assisted Psychotherapy: A Cross-Sectional Survey," Mendeley Data, V2, doi: 10.17632/bsc252bx8b.2].

References

Aday, J. S., A. K. Davis, C. M. Mitzkovitz, E. K. Bloesch, and C. C. Davoli. 2021. Predicting reactions to psychedelic

drugs: A systematic review of states and traits related to acute drug effects. *ACS Pharmacology and Translational Science* 4 (2):424–35. doi: 10.1021/acsptsci.1c00014.

Barnett, B. S., M. Arakelian, D. Beebe, J. Ontko, C. Riegal, W. O. Siu, J. Weleff, and H. G. Pope. 2024. American psychiatrists' opinions about classic hallucinogens and their potential therapeutic applications: A 7-year follow-up survey. *Psychedelic Medicine* 2 (1):1–9. doi: 10.1089/PSYMED.2023.0036.

Barnett, B. S., Y. Beaussant, F. King, and R. Doblin. 2022. Psychedelic knowledge and opinions in psychiatrists at two professional conferences: An exploratory survey. *Journal of Psychoactive Drugs* 54 (3):269–77. doi: 10.1080/02791072.2021.1957183.

Barnett, B. S., W. O. Siu, and H. G. Pope. 2018. A survey of American psychiatrists' attitudes toward classic hallucinogens. *Journal of Nervous & Mental Disease* 206 (6):476–80. doi: 10.1097/NMD.0000000000000828.

Beaussant, Y., J. Sanders, Z. Sager, J. A. Tulsky, I. M. Braun, C. D. Blinderman, A. P. Bossis, and I. Byock. 2020. Defining the roles and research priorities for psychedelic-assisted therapies in patients with serious illness: Expert clinicians' and investigators' perspectives. *Journal of Palliative Medicine* 23 (10):1323–34. doi: 10.1089/JPM.2019.0603.

Blok, G., P.-P. Baenziger, and L. W. B. Walma. 2024. Tourists, dealers or addicts: Security practices in response to open drug scenes in Amsterdam. Rotterdam and Zürich. doi: 10.5117/9789463720472_CH06.

Corrigan, K., M. Haran, C. McCandliss, R. McManus, S. Cleary, R. Trant, Y. Kelly, K. Ledden, G. Rush, V. O'Keane, et al. 2022. Psychedelic perceptions: Mental health service user attitudes to psilocybin therapy. *Irish Journal of Medical Science* 191 (3):1385–97. doi: 10.1007/s11845-021-02668-2.

Davis, A. K., G. Agin-Liebes, M. España, B. Pilecki, and J. Luoma. 2022. Attitudes and beliefs about the therapeutic use of psychedelic drugs among psychologists in the United States. *Journal of Psychoactive Drugs* 54 (4):309–18. doi: 10.1080/02791072.2021.1971343.

Eilertsen, S. E. H., and T. H. Eilertsen. 2023. Why is it so hard to identify (consistent) predictors of treatment outcome in psychotherapy? - Clinical and research perspectives. *BMC Psychology* 11 (1). doi: 10.1186/S40359-023-01238-8.

Flottorp, S. A., A. D. Oxman, J. Krause, N. R. Musila, M. Wensing, M. Godycki-Cwirko, R. Baker, and M. P. Eccles. 2013. A checklist for identifying determinants of practice: A systematic review and synthesis of frameworks and taxonomies of factors that prevent or enable improvements in healthcare professional practice. *Implementation Science* 8 (1):1–11. doi: 10.1186/1748-5908-8-35.

Goodwin, G. M., S. T. Aaronson, O. Alvarez, P. C. Arden, A. Baker, J. C. Bennett, C. Bird, R. E. Blom, C. Brennan, D. Brusch, et al. 2022. Single-dose psilocybin for a treatment-resistant episode of major depression. *New England Journal of Medicine* 387 (18):1637–48. doi: 10.1056/NEJMoa2206443.

Grover, C., L. Monds, and M. Montebello. 2023. A survey of Australian psychiatrists' and psychiatry trainees' knowledge of and attitudes towards psychedelics in the treatment of psychiatric disorders. *Australasian Psychiatry* 31 (3):329–35. doi: 10.1177/10398562231155125.

Hearn, B. G., M. D. Brubaker, and G. Richardson. 2022. Counselors' attitudes toward psychedelics and their use in therapy. *Journal of Counseling & Development* 100 (4):364–73. doi: 10.1002/JCAD.12429.

Het Grote Uitgaansonderzoek 2020 - Trimbos-instituut. n.d. Accessed August 22, 2024. https://www.trimbos.nl/aanbod/webwinkel/AF1861-Het-Grote-Uitgaansonderzoek-2020/?prod=af1861.

Kucsera, A. S. T. H. N. A., T. Suppes, and N. A. Haug. 2023. Psychologists' and psychotherapists' knowledge, attitudes, and clinical practices regarding the therapeutic use of psychedelics. *Clinical Psychology & Psychotherapy* 30 (6):1369–79. doi: 10.1002/cpp.2880.

Lutkajtis, A., and J. Evans. 2023. Psychedelic integration challenges: Participant experiences after a psilocybin truffle retreat in the Netherlands. *Journal of Psychedelic Studies* 6 (3):211–21. doi: 10.1556/2054.2022.00232.

Mason, N. L., K. P. C. Kuypers, J. T. Reckweg, F. Müller, D. H. Y. Tse, B. Da Rios, S. W. Toennes, P. Stiers, A. Feilding, and J. G. Ramaekers. 2021. Spontaneous and deliberate creative cognition during and after psilocybin exposure. *Translational Psychiatry* 11 (1):209. doi: 10.1038/S41398-021-01335-5.

Meir, P., L. Taylor, J. C. Soares, and T. D. Meyer. 2023. Psychotherapists' openness to engage their patients in psilocybin-assisted therapy for mental health treatment. *Journal of Affective Disorders* 323:748–54. doi: 10.1016/j.jad.2022.12.050.

Mitchell, J. M., M. Bogenschutz, A. Lilienstein, C. Harrison, S. Kleiman, K. Parker-Guilbert, G. M. Ot'alora, W. Garas, C. Paleos, I. Gorman, et al. 2021. MDMA-assisted therapy for severe PTSD: A randomized, double-blind, placebo-controlled phase 3 study. *Nature Medicine* 27 (6):1025–33. doi: 10.1038/S41591-021-01336-3.

Mithoefer, M. C., A. A. Feduccia, L. Jerome, A. Mithoefer, M. Wagner, Z. Walsh, S. Hamilton, B. Yazar-Klosinski, A. Emerson, and R. Doblin. 2019. MDMA-assisted psychotherapy for treatment of PTSD: Study design and rationale for phase 3 trials based on pooled analysis of six phase 2 randomized controlled trials. *Psychopharmacology* 236 (9):2735–45. doi: 10.1007/s00213-019-05249-5.

Muthukumaraswamy, S. D., A. Forsyth, and T. Lumley. 2021. Blinding and expectancy confounds in psychedelic randomized controlled trials. *Expert Review of Clinical Pharmacology* 14 (9):1133–52. doi: 10.1080/17512433.2021.1933434.

Ólafsson, R. P., K. Kvaran, K. Ketilsdóttir, K. Hallgrímsdóttir, E. L. Sigurðsson, and E. Sigurðsson. 2023. Psychedelics and treatment of mental disorders: A survey of attitudes and knowledge among psychiatrists, general practitioners and psychologists in Iceland. *Laeknabladid* 109 (11):495–503. doi: 10.17992/lbl.2023.11.766.

Page, L. A., A. Rehman, H. Syed, K. Forcer, and G. Campbell. 2021. The readiness of psychiatrists to implement psychedelic-assisted psychotherapy. *Frontiers in Psychiatry* 12:12. doi: 10.3389/FPSYT.2021.743599.

Reiff, C. M., E. E. Richman, C. B. Nemeroff, L. L. Carpenter, A. S. Widge, C. I. Rodriguez, N. H. Kalin, and W. M. McDonald. 2020. Psychedelics and psychedelic-assisted psychotherapy. *The American Journal of Psychiatry* 177 (5):391–410. doi: 10.1176/appi.ajp.2019.19010035.

Rufa, A., M. J. Kolber, J. Rodeghero, and J. Cleland. 2021. The impact of physical therapist attitudes and beliefs on the outcomes of patients with low back pain. *Musculoskeletal Science and Practice* 55:102425. doi: 10.1016/J.MSKSP.2021.102425.

Schmidt, C., M. Wolff, G. Gründer, and H. Jungaberle. 2023. Attitudes of mental health experts towards psilocybin. *Fortschritte der Neurologie-Psychiatrie* 91 (3):80–87. doi: 10.1055/A-1846-1161.

Timmermann, C., R. Watts, and D. Dupuis. 2022. Towards psychedelic apprenticeship: Developing a gentle touch for the mediation and validation of psychedelic-induced insights and revelations. *Transcultural Psychiatry* 59 (5):691–704. doi: 10.1177/13634615221082796.

van Elk, M., and E. I. Fried. 2023. History repeating: Guidelines to address common problems in psychedelic science. *Therapeutic Advances in Psychopharmacology* 13:13. doi: 10.1177/20451253231198466.

Vermetten, E. 2024. Open label study of MDMA-assisted psychotherapy for treatment of PTSD with optional fMRI sub-study. Accessed February 9. https://clinicaltrials.gov/study/NCT04030169?term=mdma%20ptsd%20vermetten&rank=1#more-information.

Yaden, D. B., M. E. Yaden, and R. R. Griffiths. 2021. Psychedelics in psychiatry - keeping the renaissance from going off the rails. *JAMA Psychiatry* 78 (5):469–70. doi: 10.1001/JAMAPSYCHIATRY.2020.3672.

Žuljević, M. F., N. Breški, M. Kaliterna, and D. Hren. 2024. Attitudes of European psychiatrists on psychedelics: A qualitative study. *Frontiers in Psychiatry* 15:15. doi: 10.3389/fpsyt.2024.1411234.

Žuljević, M. F., I. Buljan, M. Leskur, M. Kaliterna, D. Hren, and D. Duplančić. 2022. Validation of a new instrument for assessing attitudes on psychedelics in the general population. *Scientific Reports* 12 (1). doi: 10.1038/S41598-022-23056-5.