












Reading the crowd: attitudes toward psychedelics and psychedelic therapies among attendees at a conference

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Social attitudes, policy, and perceptions of psychedelics are currently undergoing considerable change. Growing public salience of psychedelics has been accompanied by the emergence of conferences focused on psychedelic education and dialogue. Attendees at such events compose an important group of stakeholders in psychedelic science and practice; their views of psychedelics can be valuable for understanding the current status of this emerging field. For this study, a survey was administered to attendees ($N = 178$) at an academic conference focused on two topics: psychedelics and spiritual care. The survey queried attitudes toward psychedelics in emerging research domains: 1) the potential benefits of microdosing and 2) potential for harm with psychedelics use. A subset of attendees who were facilitators of psychedelic care ($n = 32$) were also asked about their facilitation practices and their beliefs concerning aspects of psychedelic facilitation. Participants generally agreed that microdosing may have benefits ($M = 3.90$, where 4 = Probably, $SD = 0.95$) and modest concern (40.2% ($n = 72$) agreed or strongly agreed and 30.7% ($n = 55$) respondents “not sure”) that psychedelics could be harmful when used therapeutically. Descriptive analyses of a subset of psychedelic care facilitators also characterized harms observed during psychedelic care. Psychedelic care facilitators reported that they used psychedelics to treat a wide range of diagnoses, employing diverse psychotherapy modalities, and endorsed a need for cultural adaptations among psychedelic treatments.

Keywords: Attitudes, microdosing, adverse effects, psychedelics conference, psychedelic facilitation.

Introduction

Psychedelics are a group of compounds known to have potent effects on subjective experience, cognition, and emotion, often with profound impacts, even after a single dose. They include “classic psychedelics” such as 5HT_{2A} receptor agonists psilocybin and LSD, as well as other compounds such as MDMA, Ibogaine, and Ketamine. Many psychedelics have extensive histories of ceremonial use in Indigenous settings, as well as in extralegal settings with “underground” practitioners who provide psychedelic care. Their use in health care settings is now emergent, including as an experimental therapy with promise to treat a range of psychiatric conditions. Although clinical trials reflect possible benefit, ongoing concerns regarding study methodology and the risks of adverse events related to psychedelic treatment remain (1).

Attitudes toward psychedelics are developing amidst increasing scientific evidence of potential efficacy for difficult to treat conditions (2, 3), as well as “hype” in popular media (4). These attitudes can vary as a function of profession, demographics, and other characteristics (2, 5). A study of attitudes toward psychedelics among the general population in Croatia found that younger, male, and less educated respondents had more favorable attitudes toward psychedelics (6). Other studies found that in the United States, 47.9% of psychologists were concerned about psychiatric risks with psychedelic treatment (7) and 80.39% of psychiatrists agreed that psychedelics show promise (8). A survey of wider audiences of mental health care providers found that while “a majority of participants (91%) believed psychedelics are safe under medical supervision, a substantial minority (33%) of participants believed recreational psychedelic use to be unsafe” (2).

The perspectives of psychedelic facilitators, who include practitioners in legal “above ground” and nonlegal “underground” settings, are especially important because of their role in disseminating psychedelic treatments (9). Qualitative studies of psychedelic facilitators have highlighted the risks of psychedelic treatment (10, 11), as well as the utility of different professional backgrounds and roles in psychedelic therapy (12). However, the variety of modalities, perception of appropriate therapy goals, and practices among facilitators are not well understood within (13) or outside of clinical trials.

Shifting opinions toward psychedelics have been accompanied by a growth industry of academic and para-academic conferences and symposia, focused on education, dissemination, networking, and dialogue around psychedelics. Such events can play a role in shaping academic (14) and social (15) impact. Attendees at such events constitute a key group in the landscape of psychedelic studies, representing those who are likely to be invested in understanding psychedelics, learning about them, and connecting psychedelic researchers and proponents with their “publics” (16). Although it is imperative to understand the views and practices of this group of stakeholders given their influence, they may also be a highly motivated subgroup and potentially subject to biases toward psychedelics (17). For this reason, identifying a conference with mixed attendance—including individuals interested in psychedelics and those interested in another topic—provides an optimal opportunity to study attitudes toward psychedelics among conference-goers with varied interests. The present research surveyed attendees at an academic conference focused on two themes: 1) spiritual health (i.e., chaplaincy), and 2) psychedelic care, and thus may have drawn a more mixed cohort of attendees than exclusively psychedelics-focused conferences. This survey queried psychedelic attitudes, beliefs, priorities, and (for psychedelic facilitators among attendees) the practices they favored and beliefs around those practices. This study aimed to 1) investigate conference attendees’ attitudes toward the benefits and risks of psychedelics, and grasp current trends in these attitudes across participants’ background characteristics, and 2) evaluate beliefs about psychedelic assisted therapy among psychedelic facilitators who attended.





Materials and Methods

Recruitment

An international, hybrid (online and onsite) single-day symposium was held by Emory University in the Spring of 2023. Attendees of the conference were invited to participate in an online survey administered through REDCap through a link they received by email. All 1144 registrants to the conference were sent a link to the online survey. This study was approved by the Institutional Review Board at Emory University and participants provided informed consent.

Materials

An exploratory survey comprising 134 items was developed by an interdisciplinary group of authors to assess the characteristics of attendees (see Supplemental Documents S1 and S2). The 134 total items were inclusive of branching survey logic. Thus, participants typically answered fewer questions, with specific items depending on the items participants endorsed. For example, psychedelic care facilitators had more questions than nonfacilitators, due to specific questions about their practice that would be irrelevant to other respondents. The subset of survey items examined in this article (detailed below) was animated by interests in: 1) potential harm of psychedelics, even in therapeutic contexts; 2) perspectives on the benefits of microdosing, and 3) practices and perspectives among psychedelic therapy facilitators. Participants also were asked questions about: personal background and demographic information including age, gender, educational attainment, perceived socioeconomic status, parenthood, military service background, rurality, race, ethnicity, religious affiliations, frequency of religious service attendance, and whether participants currently worked in a health care environment (see Supplemental Document S1 for further detail). An attention check asking participants to select a specified response was utilized, and participants were excluded from analysis if they did not respond correctly: "If you are reading this question, please select 'probably no'—this question is just to check whether you are paying attention." Participants were asked, in two separate questions, about the extent to which their motivation for attending the conference was due to an interest in 1) psychedelics, or 2) or spirituality (1 = not at all, 5 = extremely, for each topic). Attendees were asked about prior personal psychedelic use (yes/no), personal psychedelic use in a therapeutic context (yes/no), or whether they ever "facilitated the therapeutic, healing, or medical use of psychedelics" (yes/no). Those who endorsed the final item were presented with items specific to psychedelic facilitators.

One Likert-type item queried beliefs about potential harms associated with psychedelics: "If used therapeutically, psychedelics could still be harmful" (1 = strongly disagree, 5 = strongly agree, or "Not sure"). One item attempted to evaluate perceived benefits of psychedelics by asking about a topic that has been less researched, and therefore deemed more susceptible to general attitudes toward psychedelics: microdosing. "Do you believe that microdosing of a psychedelic has beneficial effects?" with response options (1 = definitely no, 5 = definitely yes, or "Not sure").

Participants who endorsed facilitating therapeutic, healing, or medical use of psychedelics were presented with additional items (see Supplemental Document S2). Facilitators were asked to select from a list of conditions that they have personally treated with psychedelics. Another item asked them to rate the importance of different psychotherapeutic elements in psychedelic therapy (psychological insight, experience of connection with others, trauma processing, experience of connecting with nature, mood improvement, spiritual or mystical experiences, ego dissolution experience) (1 = not important, 5 = extremely important). Participants were asked to select from a list of "long term (occurring >1 month after dosing) challenging, difficult, or distressing experiences in individuals treated with psychedelic assisted therapy that you would attribute to the treatment." They were specifically asked whether they had ever observed a "spiritual harm to happen to individuals treated with psychedelic assisted therapy," (1 = never, 5 = all the time). Three items queried perspectives on indigenous and biomedical approaches to psychedelic healing by asking (1 = not at all, 5 = entirely) whether 1) use of psychedelics should primarily be based in indigenous healing contexts, 2) scientific/medical healing contexts, and 3) the necessity of cul-

tural adaptations in psychedelic care. Facilitators were asked their mental health professional roles, and which approaches or modalities they used when working with clients.

Analyses

Statistical analyses were completed with SPSS 29. Descriptive statistics were generated for all demographic variables. Average ratings of potential harms of psychedelics and potential benefits of microdosing were generated for the overall sample and for psychedelic care facilitators specifically. Because the survey allowed participants to endorse more than one religious affiliation, the associations between any religious affiliation, spiritual but not religious, agnostic, or no religious affiliation and attitudes toward psychedelics were examined in separate multivariate logistic regressions. Exploratory bivariate correlations examined associations among continuous variables including age, frequency of religious service attendance, socioeconomic status, and reasons for attending the conference (compassion-centered spiritual health or interest in the intersection of psychedelics and spirituality), with Kendall's tau used for level of education. Beliefs about psychedelics (harms, microdosing) were separately compared between subgroups within race, ethnicity, urban/suburban/rural residence, and gender, using one-way ANOVAs. Independent sample *t* tests compared beliefs about psychedelics based on dichotomous (yes/no) differences in parental status, military service, recreational psychedelic use, therapeutic psychedelic use, work as a psychedelic assisted therapy facilitator, and whether participants currently worked in health care. Significance threshold was $p = .05$ (two-tailed), but because of the descriptive and exploratory nature of these analyses (and, correspondingly, no correction for multiple comparisons), significance values are reported primarily for descriptive purposes. Descriptive statistics were generated for items specific to facilitators.

Results

A total of 243 participants completed consent and responded to the survey. A total of 65 were excluded from analysis due to failed attention checks. Among the remaining 178 respondents, 32 endorsed prior psychedelic facilitation. Sample demographics and facilitators' professional roles and care types are displayed in [Table 1](#). Among psychedelic care facilitators, 56% (18) reported prior personal therapeutic use and 87% (28) reported prior recreational use.

Beliefs about potential harm from psychedelics varied, with a central tendency toward the middle of the scale among all participants $n = 178$ ($M = 3.44$, $SD = 0.982$) and among facilitators $n = 32$ ($M = 3.26$, $SD = 0.984$), with no difference between facilitators and nonfacilitators $n = 146$ ($t = 1.074$, $p = 0.285$) ([Figure 1A](#)). A total of 40.2% (72) of all participants agreed or strongly agreed that psychedelics could still be harmful even within therapeutic contexts, and 30.7% (55) respondents answered "not sure." Endorsement of potential for harm was only associated with spiritual but not religious identity ($B = 0.548$, $SE = 0.253$, $F = 1.566$, $OR = 1.73$, $p = 0.032$).

Participants ($M = 3.90$, $SD = 0.95$) and facilitators ($M = 4.04$, $SD = 0.82$) demonstrated some agreement that microdosing has benefits (response of 4 = Probably), with no difference between facilitators and nonfacilitators ($t = -0.889$, $p = 0.376$), see [Figure 1B](#). A total of 23.5% (42) of all respondents responded "not sure" to this question. Only weak associations with participant characteristics were observed, with older participants ($r = 0.19$, $p = 0.032$) and those motivated to attend the conference because of interest in psychedelics ($r = 0.19$, $p = 0.036$) more likely to agree. Greater belief in benefits of microdosing was endorsed by urban $n = 83$ (vs. urban $n = 76$) respondents ($F = 3.945$, mean difference = 0.492, $SE = 0.175$, $p = 0.006$), and by women $n = 126$ (vs. men $n = 45$) ($F = 2.648$, mean difference = 0.459, $SE = 0.200$, $p = 0.024$).

All of the long-term (occurring > 1 month after dosing) post-psychedelic challenges that were queried were observed by at least some facilitators, except for dissociative or somatic problems (see [Figure 2A](#)). The most frequently endorsed long-term challenge was "problems with mood" ($n = 5$, 15.6%). Among facilitators, 9.4% (3) endorsed having observed a spiritual harm in individuals treated with psychedelic-assisted therapy.



Table 1. The columns represent respondents who were psychedelic care facilitators on the right, versus the rest of the sample on the left. The rows are demographic factors. The bottom of the table shows additional mental health care psychedelic facilitators provide

		Facilitated the therapeutic, healing, or medical use of psychedelics					
		No (<i>n</i> = 146)			Yes (<i>n</i> = 32)		
		Mean	Count	%	Mean	Count	%
Age		50.68			54.19		
Socioeconomic Status (1-10)		7.19			7.62		
Parent	No		59	40.7%		7	21.9%
	Yes		86	59.3%		25	78.1%
Community setting	Urban		63	43.2%		13	40.6%
	Suburban		69	47.3%		14	43.8%
	Rural		14	9.6%		5	15.6%
Military	No service		137	94.5%		31	96.9%
	Military Service		8	5.5%		1	3.1%
"No Religion"	Did not choose "No Religion"		134	91.8%		28	87.5%
	"No Religion"		12	8.2%		4	12.5%
Spiritual But Not Religious (SBNR)	Not SBNR		120	82.2%		23	71.9%
	SBNR		26	17.8%		9	28.1%
Agnostic	Not Agnostic		139	95.2%		26	81.3%
	Agnostic		7	4.8%		6	18.8%
Religious affiliation	Did not choose a religious affiliation		30	20.5%		11	34.4%
	Chose a religious affiliation		116	79.5%		21	65.6%
Gender	Female		106	73.1%		20	64.5%
	Male		35	24.1%		10	32.3%
	Transgender		4	2.8%		1	3.2%
Race	Black/African American		14	9.6%		1	3.1%
	Multiracial		9	6.2%		0	0.0%
	White		108	74.0%		25	78.1%
	Native American		0	0.0%		0	0.0%
	Asian		5	3.4%		2	6.3%
	Other/Preferred Not To Say		10	6.8%		4	12.5%
Ethnicity	Hispanic		8	5.9%		1	3.3%
	Non-Hispanic		127	94.1%		29	96.7%
Currently provide health care	No		60	42.0%		12	37.5%
	Yes		83	58.0%		20	62.5%
Highest educational experience	Middle School or less		0	0.0%		0	0.0%
	Some high school		0	0.0%		0	0.0%
	High school diploma		0	0.0%		1	3.3%
	Some college		3	2.1%		0	0.0%
	Technical/vocational certification		0	0.0%		0	0.0%
	4-year college degree		21	14.4%		3	10.0%
	Masters degree		78	53.4%		14	46.7%
	Doctorate or equivalent		44	30.1%		12	40.0%
Personal psychedelic use	No		88	61.1%		4	12.5%
	Yes		56	38.9%		28	87.5%
Personal psychedelic use for a therapeutic purpose	No		126	86.3%		11	37.9%
	Yes		20	13.7%		18	62.1%
Mental health care, other than psychedelic assisted therapy						Count	%
Psychotherapy						13	40.6%
Pastoral care and counseling						7	21.9%
Coaching						6	18.8%
None, I only do psychedelic assisted therapy						5	15.6%
Pharmacotherapy						4	12.5%
Complementary care (e.g., chiropractic, massage, acupuncture)						2	6.3%
Other						1	3.1%
Electromagnetic stimulation treatment (e.g., rTMS, ECT, tCDS)						0	0.0%

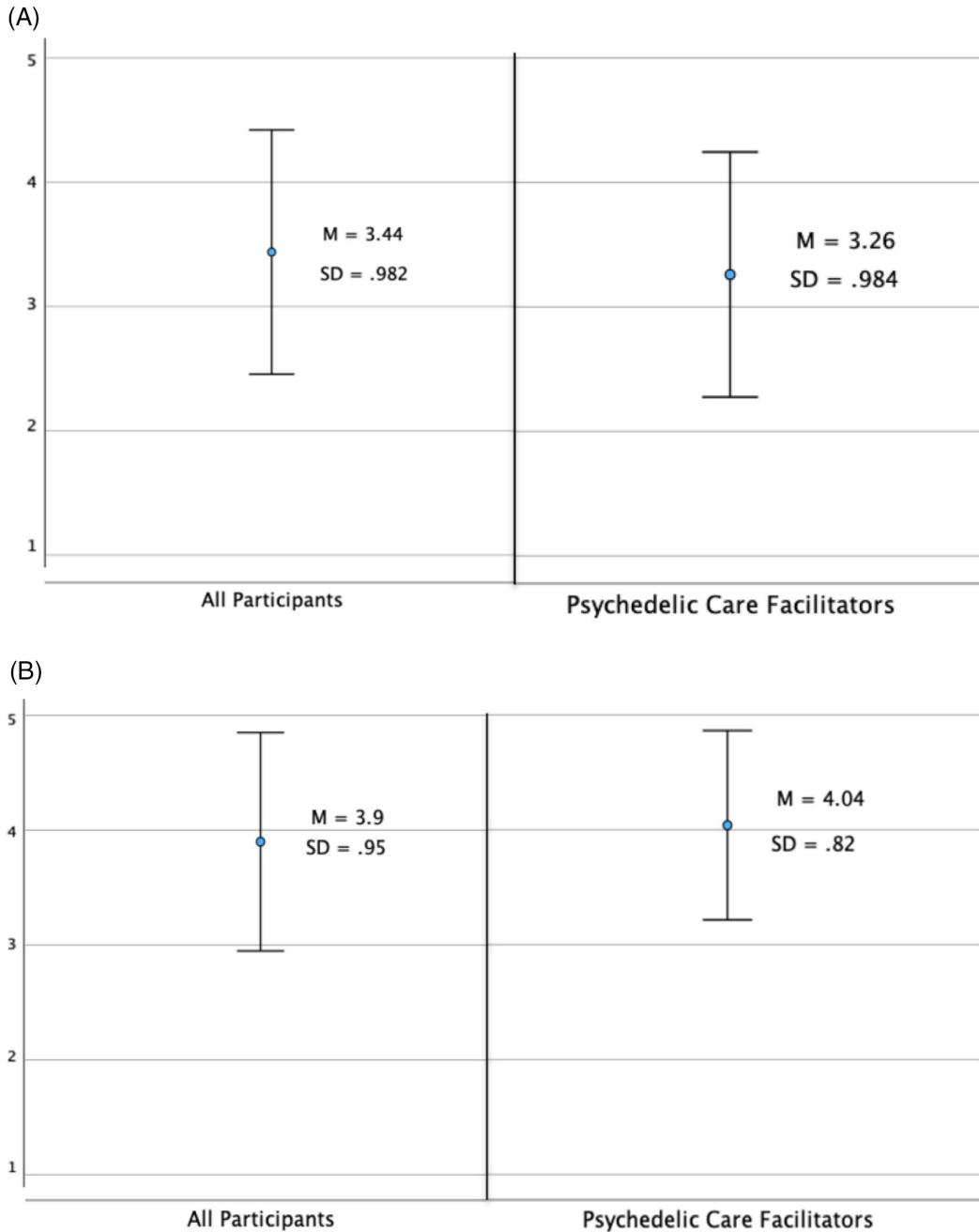


Figure 1. Displays responses from all participants ($n = 178$) on the left and psychedelic care facilitators ($n = 32$) on the right regarding harms (A) and microdosing (B). Responses are from strongly disagree 1 to strongly agree 5. (A) If used therapeutically, psychedelics could still be harmful. (B) Do you believe that microdosing of a psychedelic has beneficial effects?

The most frequently reported condition facilitators endorsed treating with psychedelics was anxiety (43.8%, $n = 14$). No facilitators endorsed treating dementia, sociopathy, or eating disorders (see Figure 2B). A total of 21.9% (7) respondents selected “I don’t think about my work with psychedelics in terms of mental health problems in this way.” Facilitators identified multiple therapeutic approaches with their clients, with 65.6% (21) selecting supportive or Rogerian psychotherapy, although this question did not specify whether these modalities were used during psychedelic care or more broadly (summarized in Figure 2C). Facilitators acknowledged the following factors as important for efficacy in treatment, with mean importance in descending order: psychologi-

cal insight ($M = 4.30$ $SD = 0.669$), experience of connection with others ($M = 4.12$ $SD = 0.653$), trauma processing ($M = 4.08$ $SD = 0.812$), experience of connecting with nature ($M = 4.07$ $SD = 0.675$), mood improvement ($M = 3.85$ $SD = 0.834$), spiritual or mystical experiences ($M = 3.70$ $SD = 0.993$), ego dissolution experience ($M = 3.63$ $SD = 0.824$). Facilitators’ responses were consistent with neutral (neither agree nor disagree) views that psychedelics should be primarily based in indigenous healing contexts ($M = 2.65$, $SD = 0.988$), or on scientific/medical healing contexts ($M = 2.92$, $SD = 1.018$). Average scores were consistent with slight agreement ($M = 3.53$, $SD = 0.772$) that cultural adaptations were needed in psychedelic care.

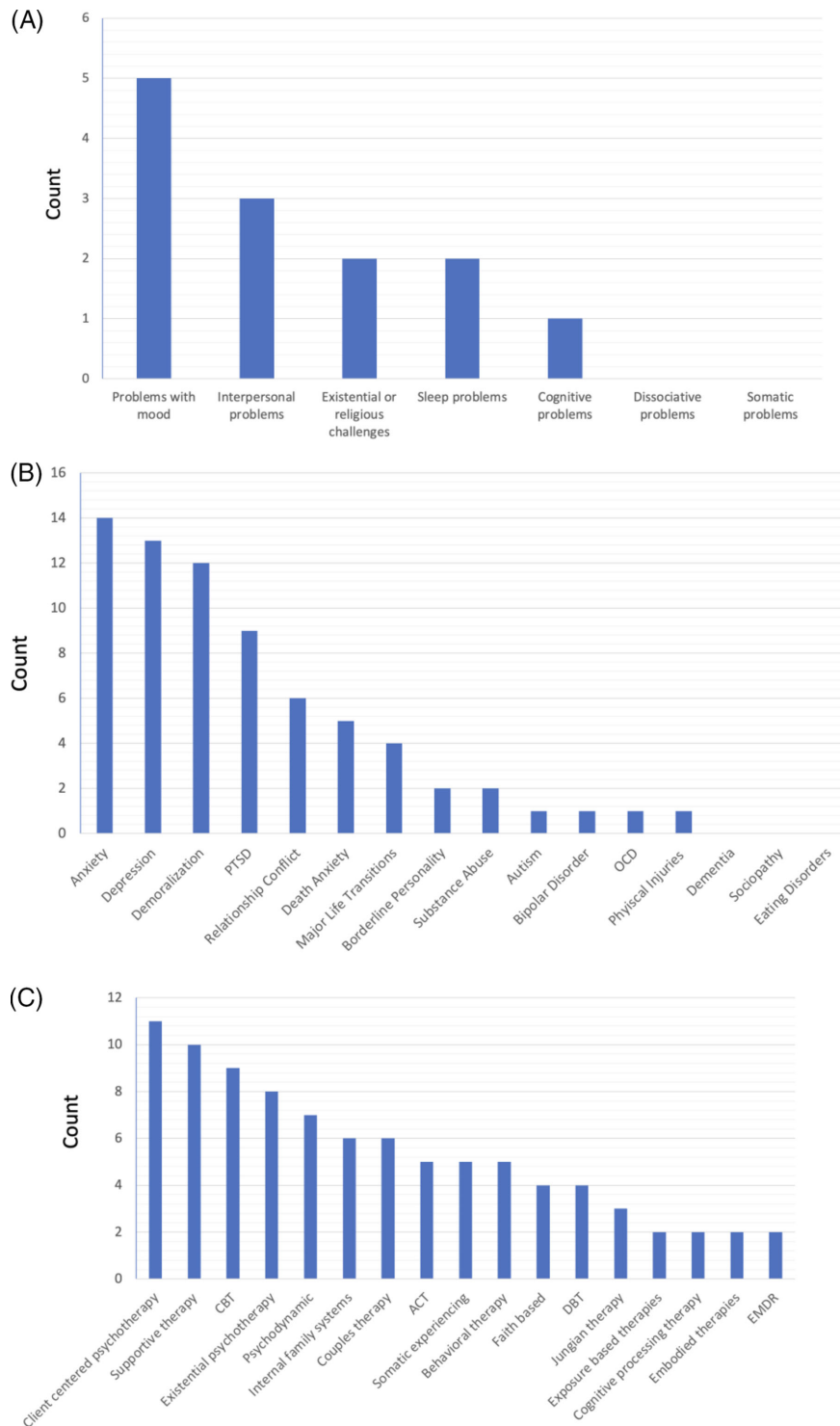


Figure 2. (A) Long-term challenging experiences in individuals treated with psychedelic-assisted therapy ($n = 32$). (B) Conditions facilitators treat with psychedelics ($n = 32$). (C) Psychotherapy modalities psychedelic facilitators use ($n = 32$).

Discussion

This survey contributes to the understanding of beliefs about psychedelics held by individuals who are interested in psychedelics and spiritual care, including a subgroup of psychedelic care facilitators. Notably, the conference from which participants were recruited included attendees who were drawn to the event based on their interest in either spiritual health, psychedelics, or both, given the overlap between these

fields. Historically, spiritual health clinicians working in medical and other organizational settings have been chaplains, and were often associated with traditional religious perspectives although this is likely shifting (12, 18). Thus, the sample may have included individuals with varying interest in psychedelics across a range of professional backgrounds.

Harms within psychedelic treatments may be distinct and more challenging to monitor than other clinical interventions, given their combined



treatment with psychotherapy and potential for profound experiences that may shift sociocultural or psychospiritual perspectives (19). Beliefs about potential harms of psychedelics endorsed by conference attendees may be indicative of concerns held by an important subset of the public. A total of 40.2% of all participants agreed that psychedelics could still be harmful even within therapeutic contexts, and another 30.7% chose “not sure” for this question. The subset of facilitators in this survey were also queried regarding specific harms they have observed lasting longer than a month and highlighted several problems resulting from psychedelic treatment. This mirrors concerns of psychedelic care facilitators regarding acute and persisting effects of psychedelics that have been reported in qualitative studies (10, 11). These findings highlight and affirm ongoing concerns for safety in psychedelic treatment in recent media and scientific publications, as well as calls for enhanced monitoring of adverse events in psychedelic treatment (20). Emerging frameworks for monitoring adverse events are being developed toward this aim (19–21).

Beliefs about the benefits of microdosing had greater variation, including more differences between subgroups, with the overall sample selecting that microdosing “probably” has benefits. Some difference in communities may be expected given the ongoing debate of microdosing’s risks or benefits in treatment and limited scientific examination of this approach (22). Because the benefits of microdosing have not been empirically established, beliefs about their benefits may extend from more generalized positive views of psychedelics. Notably, participants were more likely to endorse benefits to microdosing if they were motivated to attend the conference because of interest in psychedelics, providing some support for this interpretation.

Psychedelic facilitators highlighted utilizing a number of structured and unstructured psychotherapeutic approaches in their psychedelic and general practice. Manuals in clinical trials of psychedelic therapies often emphasize a relatively unstructured, client-directed approach, although many trials have not specified the psychotherapeutic approach used (13). Facilitators in this study identified their approach as predominantly supportive or Rogerian (65.6%). However, facilitators identified specific manualized therapeutic approaches as well, including Cognitive Behavioral Therapy (CBT), Acceptance and Commitment Therapy (ACT), and Dialectical Behavioral Therapy (DBT), with their clients. This suggests that despite a tendency to use nondirective therapy in research settings, psychedelic facilitators exhibit a range of approaches, including ones with active and directive content (23). More structured and manualized approaches are being developed to test in psychedelic treatments (24, 25).

Psychedelic facilitators endorsed treating a broad range of conditions, including diagnoses that have previously constituted exclusion criteria for randomized controlled trials (26), such as bipolar disorder, personality disorders, or autism spectrum, or for conditions where clinical research on psychedelics does not yet exist, such as physical injury (27). This indicates some degree of discrepancy between the reported scope of practice among facilitators and the empirical research. It suggests, on one hand, the potential for information from facilitators to inform clinical understandings of psychedelic treatment, as well as implementation (or, for cases where evidence is not supportive, de-implementation) of safe and effective psychedelic care.

Debates about emerging norms in psychedelic use have revealed cultural borrowing, appropriation, and biomedicalization as tension points. Ethical and pragmatic arguments have supported a use of psychedelics that is consistent with, or has reciprocal relationship with, Indigenous practices, values, and cultures (28). On the other hand, movements to legalize psychedelics and develop their safe and effective use for the treatment of disorders have relied on biomedical models of psychedelic care (29, 30). Alongside these perspectives, cultural adaptation of medical treatments is increasingly recognized as a public health need, including in psychedelic care (31). Cultural adaptations of empirically supported treatments are noninferior, and often superior, to their nonadapted counterparts (32). Advancing cultural adaptations in the field of psychedelics will require culturally responsive efforts to recruit diverse participants, researchers, and clinicians (33). Facilitators in the present study endorsed moderate beliefs that psychedelics should be grounded in scientific-medical as well as Indigenous healing contexts, with more consistent

endorsement of a need for cultural adaptations among psychedelic treatments.

Typically, mental health professionals are not expected or required to have personal experience with the remedies used by their patients (although lived experience of mental health challenges among clinicians may be an asset) (34). For psychedelic facilitators, however, personal experience with a psychedelic may be a tacit or explicit expectation. Most psychedelic facilitators in this survey had used psychedelics themselves, either therapeutically (56%) or recreationally (87%). This is consistent with findings in other surveys (35), as well as qualitative interviews of psychedelic care facilitators also stating the importance of their own psychedelic experiences for facilitating psychedelic experiences for their clients (11).

Limitations

Several limitations constrain the interpretation of this research. The cross-sectional design precludes causal inferences from study data. Measurement relied on self-report, including the use of single-item novel measures, suggesting that the true relationship between responses and behaviors or opinions may differ from observed relationships. Because of this, interpretation of these findings should be taken with reserve and be regarded as initial and impressionistic, but worthy of future study. Only 21.2% of all conference attendees responded to the survey, suggesting that generalization of study findings may be restricted and dependent on characteristics that led attendees to participate in the study in the first place. For example, those more invested in psychedelics may have been more likely to complete the survey. The sample was predominantly composed of women and individuals who identify as White. We also caution against inferences based on study statistical tests, which were primarily conducted for descriptive purposes due to the novel nature of these data.

Conclusion

Social attitudes, policy, and perceptions of psychedelics are undergoing considerable change amidst clinical studies purporting the benefits of psychedelic treatment, and concerns regarding safety and risks of expanded use. This survey’s findings accompany the present dialogue around psychedelics, illustrating modest concern regarding the harms of psychedelics even in therapeutic settings, while also displaying hope in their potential. Psychedelic care facilitators in this study described treatment of conditions with psychedelics that have previously been excluded from clinical trials, along with using both supportive and structured psychological interventions during treatment, while endorsing the need for cultural adaptation in their work.

Data Availability Statement

No original data was generated in this work that requires public dissemination.

Author Contributions

ZB performed data analysis, manuscript writing and revisions. RP and DK performed data analysis, survey development, manuscript writing and revisions. JLM-K, BR, SE, KJ, TM, GG, and BD contributed to survey development, manuscript writing and revisions. AJZ contributed to survey development.

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