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Going Underground: Demographics, Services, and Best Practices Endorsed by Practitioners Providing Support for Naturalistic Psychedelic Use

Nicolas G. Glynos PhD[a,b,c], Anne Baker PhD[a,b,c], Jacob S. Aday PhD[a,b,c], Niloufar Pouyan PharmD[a,b,c,d], Julie Barron MA[e,f,g], Moss Herberholz BA[h], Daniel Kruger PhD[i], and Kevin F. Boehnke PhD[a,b,c]

[a]Anesthesiology Department, University of Michigan Medical School, Ann Arbor, MI, USA; [b]Chronic Pain and Fatigue Research Center, University of Michigan Medical School, Ann Arbor, MI, USA; [c]Michigan Psychedelic Center, University of Michigan, Ann Arbor, MI, USA; [d]Neuroscience Graduate Program, University of Michigan, Ann Arbor, MI, USA; [e]Decriminalize Nature Ann Arbor, Ann Arbor, MI, USA; [f]Blue Sage Health Consulting, Ann Arbor, MI, USA; [g]Michigan Psychedelic Society, Ann Arbor, MI, USA; [h]The Radical Well-Being Center, Southfield, MI, USA; [i]Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, State University of New York, Buffalo, NY, USA

ABSTRACT

Psychedelic-assisted therapy (PAT) has shown preliminary efficacy for psychiatric and physical health conditions. Although some people report naturalistic psychedelic use with so-called "underground" practitioners, little is known about PAT that occurs outside of controlled clinical settings or perspectives of these practitioners. We conducted an anonymous online survey of individuals who reported providing psychedelic support services (e.g. trip sitting and/or preparatory/follow-up psychotherapy) in naturalistic settings. We investigated demographics, including education and licensing, details about services provided, and reported client outcomes. Among 107 participants, 40.2% held a full or in-progress license and 44.9% had not obtained a relevant graduate degree. Almost all participants reported pre-screening clients before treatment, offering preparation, integration, and trip-sitting services, and most employed a range of therapeutic modalities, centering primarily on non-directive approaches. Participants reported that clients most commonly consumed psilocybin, and treated numerous conditions, primarily aligning with indications targeted in psychedelic clinical research. Perceptions of clients' symptom changes were largely positive, although a small proportion reported worsened personality disorder symptoms. Further research delineating client and practitioner perspectives of naturalistic PAT services is warranted, and such work may shed light on the benefits and risks specific to naturalistic PAT as well as inform best practices for practitioners.

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Introduction

Psychedelic drugs cause acute changes in sensory perception, mood, cognition and affect, and are often classified as either classic or atypical (Kelmendi et al. 2022). Classic (i.e., serotonergic) psychedelics include psilocybin, lysergic acid diethylamide (LSD), N, N-dimethyltryptamine (DMT) and mescaline, among others, and are thought to exert their effects primarily through activation of central serotonin 2A (5-HT_{2A}) receptors (Nichols and Barker 2016). Atypical psychedelics include 3,4-methylenedioxymethamphetamine (MDMA), ketamine, and *Salvia divinorum*, among others, and these compounds have more varied mechanisms of action (Schifano et al. 2015). Psychedelic-assisted therapy (PAT) is a treatment approach that combines guided psychedelic dosing sessions with preparatory and post-dosing psychotherapy sessions, each of which is supported and facilitated by a qualified practitioner (i.e., trained therapist, social worker, clinical psychologist, or relevant health care provider). Although there are some exceptions, classic and atypical psychedelics have largely overlapping subjective phenomenology, and are accompanied by generally similar approaches to PAT. Currently, psilocybin is the most commonly used substance in PAT, with psilocybin-assisted therapy showing promise for the treatment of a variety of psychiatric disorders including depression (Goodwin et al. 2022; Raison et al. 2023), anxiety associated with existential distress (Griffiths et al. 2016), and substance use disorders (Bogenschutz et al. 2022; Johnson, Garcia-Romeu, and Griffiths 2016). Psilocybin-assisted therapy is also currently undergoing phase III clinical trials for treatment-resistant depression (NCT05624268). Two Phase III trials of MDMA-assisted therapy for treatment of post-traumatic stress

CONTACT Kevin F. Boehnke kboehnke@med.umich.edu Anesthesiology Department, University of Michigan Medical School, 24 Frank Lloyd Wright Drive, Ann Arbor, MI 48106, USA

disorder (PTSD) recently demonstrated substantial decreases in PTSD symptoms compared with placebo (Mitchell et al. 2021, 2023). Despite limitations of these studies, including problems with unblinding and expectancy effects (Flameling, Aday, and van Elk 2023), MDMA-assisted therapy for treatment of PTSD is currently under review by the FDA.

The increasing volume of clinical research and media attention targeted at psychedelics, coupled with successful decriminalization efforts across North America, have contributed to recent trends of increased naturalistic psychedelic use (Aday, Bloesch, and Davoli 2020; Yockey, Vidourek, and Keith 2020; A.; Yockey and King 2021). However, because psychedelics remain illegal on a federal level in the United States, and established clinical infrastructure does not currently exist to provide options for guided psychedelic use, naturalistic psychedelic use occurs primarily in "the underground," often without the supportive guidance of a support person such as a trained therapist or healthcare professional (HCP). In a recent survey, we found that among 1,435 individuals using psychedelics in the US, nearly half (47.2%) used psychedelics to treat a medical condition or to help with processing trauma, but less than 5.0% indicated that they did so in either a clinical setting or with a trained therapist or HCP (Glynos et al. 2022). These results were mirrored in a survey of 2,384 Canadian adults reporting past psychedelic use (Glynos et al. 2023), with about half of that population using psychedelics to treat a medical condition, but less than 5% with therapist or HCP support. Most participants in both studies noted that they would use psychedelics with a therapist or HCP guidance if such support were legal and available. Taken together, these results suggest that some individuals are using psychedelics with underground practitioners, but that there is an unmet need for these types of support services among a substantial proportion of naturalistic psychedelic users.

Although numerous observational studies have described outcomes and perceptions of naturalistic psychedelic use from the perspective of the client or consumer (Wells, Fernandes, and Reynolds 2024), few studies have described naturalistic psychedelic use from the perspective of the practitioner. Practitioners' perspectives can offer an important lens into how these services are offered in real-world settings, which typically occur without oversight from regulatory entities. An understanding of these perspectives may inform strategies for improving PAT in both clinical and naturalistic settings, which will likely contribute to improved safety and efficacy outcomes of PAT treatments in the future. However, because of the "underground" nature of these services, there is a knowledge gap regarding practices deployed and what typically occurs in these contexts. Thus, the aim of the current study was to provide a first understanding of naturalistic PAT practitioners and the services they offer. We describe demographics, therapeutic services offered, and client outcomes of naturalistic psychedelic use among a population that reported providing naturalistic PAT services.

Methods

Participant recruitment and eligibility

We conducted an anonymous, confidential self-reported cross-sectional Qualtrics survey that was active between September 17 and October 31, 2023. The survey was distributed on posted advertisements at a psychedelic activism event (Entheofest) in Ann Arbor, MI, as well as through e-mail listservs (e.g., Blossom, Third Wave, Psychedelics Today, Psychedelic Alpha) and public posts in psychedelic interest groups on social media platforms (e.g., Reddit, Facebook, Bluelight.org). The full survey was open to all naturalistic psychedelic users, but to increase representation of underground psychedelic practitioners for this subanalysis, we specifically mentioned an interest in psychedelic practitioners in the recruitment postings and requested forwarding by relevant organization such as the American Psychedelic Practitioners Association. Study participants were limited to English-speaking adults (≥18 years of age) who reported past use of a psychedelic.

Survey development

This survey was developed collaboratively with input from stakeholders, students, and advocacy groups involved in psychedelic research, as well as academics experienced in survey design and analysis. The current report focuses on the subset of participants who indicated that they currently provide services (e.g., trip sitting and/or preparation or follow-up psychotherapy) that involve psychedelic substances. Along with demographic characteristics, this survey assessed educational and training history, details about and approaches to providing

psychedelic support services, and practitioner-reported client outcomes. A complete list of survey questions will be available from the corresponding author upon request.

Measures

We collected demographic information including age, gender (woman, man, or other), race, country of residence (Canada, United States, or other), education (ranging from high school to advanced degree), annual household income, and psychedelic decriminalization status of current residence. Training history was assessed via questions about degree(s) obtained related to therapy, counseling, or healthcare (e.g., Master of Social Work, Clinical Psychology, Doctor of Medicine), types of psychedelic-related training received (e.g., independent, mentorship, paid training, coursework), and therapist licensing status. We also assessed the types of services (e.g., preparation, trip sitting, integration) that participants provide to clients, as well as details about those services and the substances that clients typically consume under their guidance. If participants reported providing preparation, trip sitting, or integration services, they were presented with additional questions about average number of session hours provided for preparation or integration therapy, and the number of guides present and details about client interactions during dosing sessions. We also asked if participants charged a monetary fee for any of these services, and if yes, whether they accept insurance.

Psychedelics used

Participants selected all psychedelic substances that their clients typically consume under their guidance from a list that included: *Amanita muscaria* (fly agaric), ayahuasca, bufotenine, cannabis/cannabinoids/marijuana, DMT, 5-methoxy-DMT (5-MeO-DMT), iboga/ibogaine, kambo, ketamine, lysergic acid amide (LSA), LSD, MDMA, mescaline, nitrous oxide, psilocybin (synthetic), psilocybin (mushrooms or truffles) *Salvia divinorum* or salvinorin A, synthetic phenethylamines (2C-B, 2C-I, DOM, DOI, 25B-NBOMe, etc.), synthetic tryptamines (AL-LAD, ETH-LAD, 4-HO-MET, 5-MeO-MiPT, etc.), or an unknown substance.

Opinions about psychedelic therapy and reported outcomes

We assessed opinions about how psychedelic therapy should be conducted with questions about structure (i.e., individual vs. group) for preparation, dosing, and integration sessions. Finally, we asked about the conditions for which participants have provided psychedelic services, and their perceptions of clients' symptom changes following psychedelic treatment with options on a 7-point scale ranging from "very much worse" to "very much better."

Statistics

We used descriptive statistics to characterize the study population.

Ethics

This study was deemed exempt by the University of Michigan Behavioral Sciences Institutional Review Board (Protocol HUM00205639). No identifying data was collected to ensure confidentiality and anonymity. Participants were not compensated and could withdraw at any time.

Results

Sociodemographic characteristics

Overall, 623 people started the survey. Of these, $n = 41$ indicated that they had already completed the survey, and $n = 1$ was under 18 years of age, rendering them ineligible for participation. Thus, the overall sample size included 581 adults who reported past use of a psychedelic. For the current report, we focused on the subset of participants ($n = 107$) who reported that they currently provide services involving psychedelic substances. Participants were mostly white (72.9%; $n = 78/107$), 31.1 ± 14.1 years old, and consisted of 56.1% women, 39.3% men, and 4.7% individuals who identified as non-binary or other self-described gender (Table 1). The majority currently live in the United States (84.1%; $n = 90/107$) in areas where psychedelics are not decriminalized (57.0%; $n = 61/107$) and have annual household incomes greater than $50,000 (64.5%; $n = 69/107$). Less than half of the population (41.2%; $n = 44$) reported earning an advanced degree (e.g., masters, doctorate, or medical degree), and 44.9% ($n = 48/107$) did not hold a degree related to therapy or counseling. Most participants reported receiving their psychedelic training largely from independent sources, including personal experiences (88.8%; $n = 95/107$), books, seminars, etc. (78.5%; $n = 84/107$), and via mentoring (60.7%; $n = 65/107$). Fewer participants received psychedelic training from paid or job-related sources including at

Table 1. Sociodemographic characteristics.

	N = 107	
What is your current age (mean, SD)?	31.1	14.1
What is your gender identity?	**N**	**%**
Woman	60	56.1%
Man	42	39.3%
Other	5	4.7%
In which country do you live?		
Canada	4	3.7%
United States	90	84.1%
Another country	13	12.1%
Are psychedelics decriminalized in the area where you live?		
Yes	37	34.6%
No	61	57.0%
Missing	9	8.4%
What is the highest level of education you have completed?		
High school or less	6	5.6%
Associates degree or some college	30	28.0%
Bachelor's, Masters or Advanced degree	71	66.4%
What is your total annual household income (in USD before taxes)?		
Less than $50,000	32	29.9%
$50,000 - $99,999	42	39.3%
More than $100,000	27	25.2%
Missing	6	5.6%
With what race/ethnicity do you identify?		
African American/Black	8	7.5%
Asian	2	1.9%
Caucasian/White	78	72.9%
Hispanic or Latino/a/x	3	2.8%
Native American	3	2.8%
Other	12	11.2%
Missing	1	0.9%
Which degrees have you obtained?*		
Master of Social Work (MSW)	11	10.3%
Mental Health Counseling (MA or MS)	19	17.8%
Clinical or Counselling Psychology (PhD)	7	6.5%
Clinical Psychology (PsyD)	5	4.7%
Doctor of Medicine (MD)	2	1.9%
Other degree related to therapy or counseling (please describe)	19	17.8%
None	48	44.9%
What types of psychedelic training have you received?*		
From my own experiences	95	88.8%
Independent training via books, seminars, or other educational materials	84	78.5%
Mentoring from an experienced therapist, shaman, or elder	65	60.7%
Paid training at a research or training institute (e.g., MAPS, PRATI)	30	28.0%
Paid training from a counselor/consultant	22	20.6%
On the job training at the clinic or retreat where I work	22	20.6%
Coursework at a college or university	18	16.8%
Other	12	11.2%
What is the current status of your license?		
In progress (limited license)	8	7.5%
Fully licensed	35	32.7%
Unlicensed	35	32.7%
Not available in my area	13	12.1%
Prefer not to answer	16	15.0%
Where did you hear about the survey?		
Email	50	46.7%
Social Media	29	27.1%
Entheofest	16	15.0%
Other	12	11.2%

*Participants could select all that apply.

a research or training institute (28.0%; $n = 30/107$), from a counselor or consultant (20.6%; $n = 22/107$), on the job training (20.6%; $n = 22/107$), or from coursework at a college or university (16.8%; $n = 18/107$). Approximately one-third (32.7%; $n = 35/107$) were fully licensed to provide therapy or counseling in their area.

General details about psychedelic services

Most participants reported providing preparation services before the experience (86.0%, $n = 92/107$), trip sitting during the experience (74.8%, $n = 80/107$), and integration services following the experience (81.3%, $n = 87/107$) (Table 2). Over a third (39.3%, $n = 42/107$) indicated that they provide substance acquisition or procurement

Table 2. Details about psychedelic assisted therapy services.

	N = 107	
What types of services to you provide to your clients?*	N	%
Preparation before the experience	92	86.0%
Integration following the experience	87	81.3%
Trip sitting during the experience	80	74.8%
Referrals to other psychedelic therapists	47	43.9%
Substance acquisition or procurement	42	39.3%
Substance testing	25	23.4%
Other (please describe)	24	22.4%
How often do you screen potential clients before committing to doing psychedelic work with them?	**N = 107**	
Always	93	86.9%
Most of the time	6	5.6%
About half of the time	2	1.9%
Sometimes	2	1.9%
Never	4	3.7%
What do you typically screen for?*	**N = 107**	
Compatibility with me and the services I provide	92	86.0%
Psychiatric conditions that would stop me from providing treatment	90	84.1%
Physical conditions that would stop me from providing treatment	77	72.0%
Other (please describe)	19	17.8%
What therapeutic modalities do you typically employ?*	**N = 107**	
None	35	32.7%
Somatic Experiencing	35	32.7%
Internal Family Systems (IFS)	26	24.3%
Acceptance and Commitment Therapy (ACT)	22	20.6%
Motivational Interviewing (MI)	21	19.6%
Cognitive Behavioral Therapy (CBT)	19	17.8%
Psychoanalysis	16	15.0%
Dialectical Behavioral Therapy (DBT)	12	11.2%
Other (please describe)	26	24.3%
What psychedelics do your clients typically take while enrolled in your care?*	**N = 107**	
Psilocybin (fungi or synthetic)	79	73.8%
Ketamine	30	28.0%
Cannabis/cannabinoids/marijuana	21	19.6%
MDMA/MDA (Ecstasy, Molly)	20	18.7%
LSD or LSA	16	14.9%
DMT or 5-MeO-DMT	12	11.2%
Ayahuasca	6	5.6%
Mescaline (Peyote, San Pedro cacti)	6	5.6%
Iboga/Ibogaine	3	2.8%
Nitrous oxide	2	1.9%
Salvia divinorum or salvinorin A	2	1.9%
Unknown substance	2	1.9%
Other	12	11.2%
For which conditions have you provided psychedelic treatment for your clients?*	**N = 107**	
Spiritual growth/exploration	83	77.6%
Personal growth/empowerment	80	74.8%
Anxiety	75	70.1%
Depression	75	70.1%
Post-traumatic stress disorder	57	53.3%
Addiction	41	38.3%
Creative problem solving	37	34.6%
Chronic pain condition (e.g., fibromyalgia)	25	23.4%
Attention deficit/hyperactivity disorder	20	18.7%
Obsessive compulsive disorder	20	18.7%
Personality disorder (e.g., borderline personality disorder)	18	16.8%
Bipolar disorder	16	15.0%
Eating disorder (e.g., anorexia)	16	15.0%
Other (please specify):	16	15.0%
Cancer	14	13.1%
Neurological disorder (e.g., epilepsy)	10	9.3%
Sleeping disorder (e.g., insomnia)	9	8.4%
Diabetes	3	2.8%
Psychotic disorder (e.g., schizophrenia)	3	2.8%
On average, how many session hours do you work with clients when preparing for one psychedelic experience?	**N = 92**	
0 h	4	4.3%
1 h	11	12.1%
1.5–4 h	55	59.8%
5–9 h	19	20.7%
10 h or more	7	7.6%
On average, how many dosing sessions do your clients have during the course of treatment?	**N = 107**	
0	10	9.3%

(*Continued*)

Table 2. (Continued).

	N = 107	
What types of services to you provide to your clients?*	N	%
1 session	41	38.3%
2–4 sessions	43	40.2%
5–8 sessions	11	10.3%
10 or more sessions	2	1.9%
How many guides are present during the client's psychedelic experience?	**N = 80**	
1	60	56.1%
2	17	15.9%
3+	3	2.8%
Which statement best describes your interactions with clients during their psychedelic experience? (select all that apply)*	**N = 80**	
I make sure that clients feel safe and comfortable, but otherwise do not interfere with their psychedelic experiences	61	76.3%
I respond encouragingly to clients' insights, but do not attempt to actively guide them	53	66.3%
I actively discuss/address issues that clients raise during their psychedelic sessions	25	31.3%
I actively bring up issues that clients raised before their psychedelic sessions	13	16.3%
Other:	16	20.0%
On average, how many session hours do you work with clients when integrating one psychedelic experience?	**N = 87**	
0 h	2	2.3%
1 h	13	14.9%
2–4 h	45	51.7%
5–9 h	18	20.7%
10 h or more	9	10.3%
Do you charge a monetary fee for your services?	**N = 107**	
Yes	60	56.1%
No	47	43.9%
Do you accept insurance for your services?	**N = 60**	
Yes	9	15.0%
No	19	31.7%
Insurance coverage is not available for my services	27	45.0%
Other (please describe):	5	8.3%

*Participants could select all that apply.

services. Of these, 28.6% ($n = 12/42$) reported that their clients take cannabis products, and 16.7% ($n = 7/42$) take ketamine. Less than a quarter of the overall sample (23.4%, $n = 25/107$) reported providing substance testing services for clients. Nearly all participants (96.3%, $n = 103/107$) reported screening potential clients before committing to doing psychedelic work with them. Participants employed a variety of therapeutic modalities including somatic experiencing (32.7%, $n = 35/107$), internal family systems (24.3%, $n = 26/107$), and acceptance commitment therapy (20.6%, $n = 22/107$), whereas 32.7% ($n = 35/107$) of participants said that they do not employ any specific

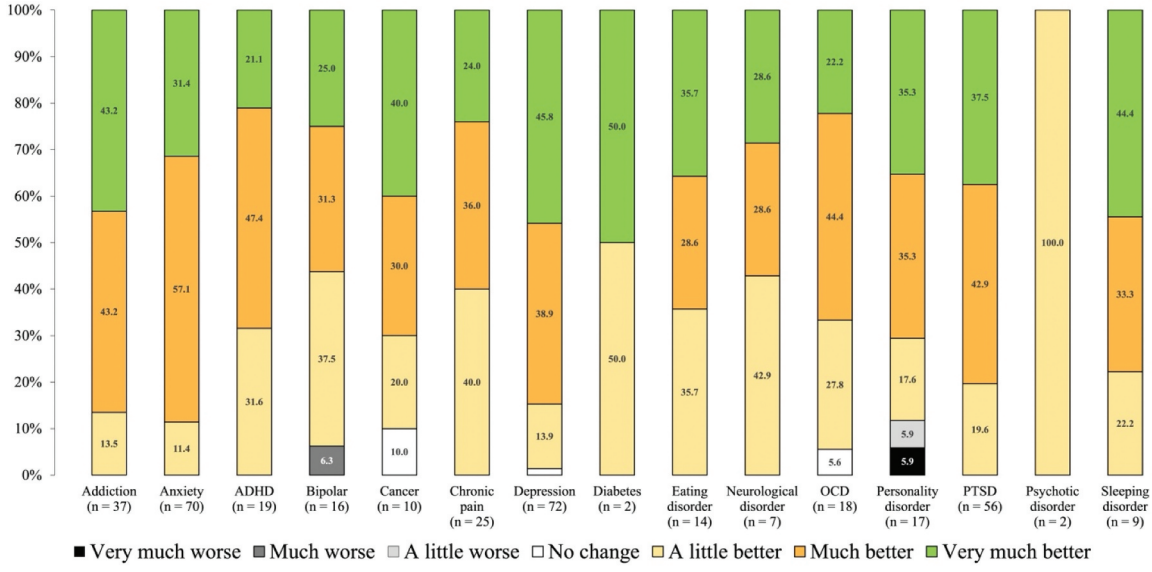

Figure 1.

therapeutic modalities in their treatments. Participants reported that psilocybin was the most widely used substance by their clients (73.8%, $n = 79/107$), followed by ketamine (28.0%, $n = 30/107$), cannabis (19.6%, $n = 21/107$) and MDMA (18.7%, $n = 20/107$). The medical conditions that were most often treated by participants were anxiety (70.1%, $n = 75/107$), depression (70.1%,

$n = 75/107$), PTSD (53.3%, $n = 57/107$), and addiction (38.3%, $n = 41/107$), and the most common non-medical motivations were spiritual (77.6%, $n = 83/107$) and personal growth (74.8%, $n = 80/107$). Participants reported almost exclusively positive outcomes for client symptoms following psychedelic treatment for a range of conditions (Figure 1), with negative outcomes most commonly reported for bipolar disorders (6.3%, $n = 1/16$) and personality disorders (11.8%, $n = 2/17$).

Details about preparation, dosing, integration, and payment

Overall, almost half of participants (40.2%, $n = 43/107$) indicated that their clients undergo 2–4 dosing sessions during the course of treatment (Table 2). For those who reported providing therapeutic services to prepare clients for dosing sessions ($n = 92$), most 59.8% ($n = 55/92$) said that they work with clients for 1.5–4 h to prepare for one psychedelic experience, and among those that provide trip sitting services ($n = 80$), 60 (75%) said that just one guide is present during the experience. Interactions with clients during dosing sessions were reported to be largely non-directive. Most (76.3%, $n = 61/80$) said that they do not interfere with clients' psychedelic experiences during sessions, and 66.3% ($n = 53/80$) do not actively guide clients. Among those that reported providing post-psychedelic integration services ($n = 87$), 58.5% ($n = 51/87$) said that they work with clients for an average of 2–4 h to integrate one psychedelic experience. About half of participants indicated that they charge a monetary fee for their services (56.1%, $n = 60/107$), and among those, most (76.7%, $n = 46/60$) do not accept or offer insurance to cover the cost of services.

Opinions about psychedelic therapy structure

The majority (58.9%, $n = 63/107$) of participants thought that the same therapist should be present for preparation, dosing, and integration sessions (Table 3). When asked about individual vs. group structures, individual sessions were the most highly endorsed (83.2% for preparation, 80.4% for dosing, and 81.3% for integration) but many also endorsed group sessions for preparation (52.3%; $n = 56/107$), dosing (52.3%; $n = 56/107$), and integration (58.9%; $n = 63/107$).

Table 3. Opinions about psychedelic therapy structure.

	N = 107	
Do you think the same therapist should be present for preparation, dosing, and integration sessions?	N	%
No	4	3.7%
Yes	63	58.9%
Does not matter	16	15.0%
Don't know	7	6.5%
Other:	17	15.9%
What structure should be used for preparation sessions?	**N = 107**	
Individual	89	83.2%
Group	56	52.3%
Does not matter	16	15.0%
Don't know	4	3.7%
What structure should be used for dosing sessions?	**N = 107**	
Individual	86	80.4%
Group	56	52.3%
Does not matter	21	19.6%
Don't know	7	6.5%
What structure should be used for integration sessions?	**N = 107**	
Individual	87	81.3%
Group	63	58.9%
Does not matter	20	18.7%
Don't know	6	5.6%

Discussion

Findings from this observational study of individuals providing PAT services offers practitioner perspectives on the underground use of psychedelics in therapeutic contexts. Importantly, we show that most participants do not hold advanced degrees or licenses related to therapy or counseling, and their psychedelic support experience and training largely came from independent sources, such as from their own experiences, or from independent training via books or seminars. Nearly all participants indicated that they screen potential clients before committing to work with them, and a variety of therapeutic modalities are employed, with an emphasis on non-directive approaches. Participants generally reported improvements in their clients' symptoms following psychedelic treatment. These results suggest the need for additional training opportunities for psychedelic practitioners, but that efforts are taken on the part of the practitioner to ensure client compatibility and safety, and that perceptions of psychedelic treatments are largely positive.

Formal education and training from accredited sources for providing psychedelic support services was generally lacking in this sample. Only 16.8% ($n = 18/107$) indicated that they have received psychedelic support training through coursework at a college or university, perhaps due to the lack of psychedelic-based training opportunities currently available at accredited

educational institutions (Geller et al. 2024). Additionally, the legal status of most psychedelics puts licensed providers at risk if they work with these substances. This risk may be magnified when practitioners provide substance acquisition or procurement services, as was reported by 39.3% ($n = 42/107$) in this study. Further, 59.8% ($n = 64/107$) of the population indicated that they do not hold a full or in-progress license to provide therapeutic or counseling services. Because unlicensed practitioners are not required to abide by state-wide standards surrounding professional training, continuing education, ethics, or legal protections, clients may incur additional risks when working with these individuals, such as ethical or personal boundary violations. This becomes especially salient in the context of PAT, where the altered states brought about by psychedelics may render patients more susceptible to physical or emotional harms.

The time-intensive nature of providing psychedelic support services is a critical challenge that must be addressed if psychedelics are to become integrated into mainstream clinical care (Boehnke, Davis, and McAfee 2022). In contemporary clinical research with psychedelics, participants receive multiple hours of preparatory therapy, one or more dosing sessions (8 h or more), and several hours of integration therapy in the weeks to follow. Our results suggest that psychedelic support services in naturalistic settings follow a similar framework: the majority of participants indicated working for more than 1 h when preparing for 88.0% ($n = 81/92$) or integrating 82.8% ($n = 72/87$) a single psychedelic session, and 52.3% ($n = 56/107$) indicated that their clients undergo two or more dosing sessions during the course of treatment. The use of multiple dosing sessions is in line with a growing body of clinical trial evidence supporting the superiority of multiple sessions compared to single dose psychedelic administration (Leger and Unterwald 2022; Mitchell et al. 2023; Mithoefer et al. 2019). Together, these results suggest that many practitioners in the current study spend at least 24 h or more with a single client during treatment. One scalable approach to mitigating this intense time burden is the possibility of conducting group sessions – an approach endorsed by most practitioners in our study – which could save time, reduce costs, and provide important social benefits to support treatment (Trope et al. 2019). However, additional work will be needed to determine how individual vs. group sessions would differ, and the situations where one or the other might be most appropriate.

Little is known about which psychotherapeutic modalities are most effective in PAT settings. This is a critical concern considering the highly suggestible and vulnerable altered state that psychedelics elicit and the hypothesized importance of supportive psychotherapy for beneficial therapeutic outcomes with PAT (Aday, Carhart-Harris, and Woolley 2023; Carhart-Harris et al. 2018). A recent review highlighted the lack of systematic investigation of the psychotherapy component of PAT (Aday et al. 2024). The results presented here are consistent with this ambiguity, representing a lack of consensus regarding therapeutic modalities among participants. Nearly a third indicated not employing any therapeutic modality over the course of treatment, and an equal proportion noted the utilization of somatic experiencing (SE), a body-oriented bottom-up approach typically used for treating symptoms of trauma (Payne, Levine, and Crane-Godreau 2015). The remainder of responses varied across a wide range of other widely recognized modalities. The second most commonly endorsed modality was Internal Family Systems (IFS), which is also a somatic-oriented, experiential approach geared toward cultivation of insight rather than enhancement of coping skills (Schwartz and Sweezy 2019). Third was acceptance and commitment therapy (ACT), which combines cognitive skills training with mindfulness skills and values-based goal setting (Hayes et al. 2006). Although much remains to be learned about optimizing the psychotherapeutic components of PAT, our preliminary data suggest that practitioners favor approaches to preparation and integration that are primarily geared toward cultivating insight and facilitating an embodied experience. A higher degree of consensus was found when participants reported on interactions with clients during psychedelic sessions. The highest proportions were observed for non-directive approaches, where 76.3% indicated that they "do not interfere with [the client's] psychedelic experience" and 66.3% "do not actively guide [the clients]." This non-directive approach is among the most widely adopted methods within clinical settings for supporting clients during peak psychedelic experiences (Cavarra et al. 2022).

The conditions for which study participants provided psychedelic treatments largely aligned with those that have received attention in recent clinical psychedelic research, including anxiety (70.1%), depression (70.1%), PTSD (53.3%), and addiction (38.3%). Clinical trials have tested the safety and efficacy of psychedelic treatment for each of these conditions with a range of substances including psilocybin, MDMA, LSD, DMT, ketamine, and others (Heifets and Olson 2024). Another similarity of the current results with clinical trial psychedelic practice relates to screening clients before beginning treatment. Nearly all participants (96.3%) reported that they screen potential clients at least "sometimes," with most (86.9%)

indicating that they "always" do. Compatibility with the practitioner was the top criterion of screening among this population (86.0%), followed by psychiatric (84.1%) and physical (72.0%) conditions. This aligns with current practices, where clinical trials with psychedelics regularly screen for both psychiatric (e.g., psychosis) and physical (e.g., cardiovascular health) conditions as well as ability to build rapport with study therapists (Garcia-Romeu and Richards 2018). Taken together, these results suggest that underground psychedelic therapy in naturalistic settings approximates some of the practices employed in modern clinical research settings (or vice-versa).

Participants' perceptions of client's symptom changes following psychedelic treatment were largely positive for all conditions treated, except for personality disorders ($n = 2/17$ reported worsened symptoms). Beneficial outcomes were reported for over a dozen psychiatric and physical conditions, with a range of therapeutic modalities and several different substances. Together, these results support current hypotheses regarding the transdiagnostic potential of psychedelic treatments (Kelly et al. 2021; Kočárová, Horáček, and Carhart-Harris 2021; Pouyan et al. 2022), but may also reflect an inflation of reported treatment benefit on behalf of the clients, or the practitioners. Indeed, media and industry interests have contributed to a "psychedelic hype bubble" (Yaden, Potash, and Griffiths 2022) suggesting that current effect sizes will likely not be sustained for these treatments once they are commercialized and deployed in mainstream clinical care. Additional work will therefore be needed to assess the efficacy of guided psychedelic treatments in naturalistic settings.

The potential approval and medicalization of both MDMA for post-traumatic stress disorder and psilocybin for treatment-resistant depression highlights an impending bottleneck that will complicate the implementation of psychedelic treatments into mainstream clinical care – the shortage of adequately trained practitioners who are prepared to provide supportive therapies with psychedelic treatments (Mocanu et al. 2022). This multi-faceted challenge includes (1) determining ways to provide adequate training of future psychedelic practitioners and current healthcare professionals, (2) identifying strategies for implementing time-intensive psychedelic support into a model that fits within mainstream clinical care, and (3) establishing best practices for providing high levels of care while ensuring utmost safety and minimized risks for patients undergoing psychedelic treatments. The results of this study shed light on the current landscape of guided naturalistic psychedelic use, potentially informing future strategies that could effectively overcome these and other challenges related to the commercialization of psychedelic therapies.

Our study has several limitations. The sample (mostly White and highly educated) was not nationally representative, given our convenience sampling recruitment strategy, and targeting of psychedelic-related social media, e-mail listservs, and an in-person activism event. As a result, we are unable to validate the claims made by participants, and the results may be subject to misrepresentation. However, there were no offered incentives (i.e. financial) to either start or complete the survey, which should minimize the likelihood of invalid responses. The study is also limited by its cross-sectional design and potential for recall bias, which challenges the interpretation of reported changes in symptoms, especially given the lack of independent ratings of client symptoms. However, this study is among the first that have investigated naturalistic PAT services from the perspective of the provider, which provides valuable insight into our understanding of naturalistic PAT. Given the illicit nature of psychedelics and related therapies across much of the globe, this anonymous survey approach provides an essential characterization of underground psychedelic therapy practices, which may inform future strategies for improving PAT in both clinical and naturalistic settings. Future studies should aim to replicate these results in a more vetted sample and implement qualitative assessments to better understand the practices of confirmed underground practitioners.

Conclusions

We report findings from a cross-sectional survey of individuals who reported providing psychedelic support services (e.g., preparation, trip-sitting, integration) in naturalistic settings. Results suggest that naturalistic PAT services largely follow trends of modern clinical psychedelic research and are fraught with similar challenges including the adequate training of practitioners, implementing time-intensive PAT into patient care, and uncertainty regarding best practices for treatment. Given the widespread positive changes in symptoms reported here, additional studies are warranted to investigate PAT in naturalistic settings. Finally, it will be critical to provide additional training, education, and licensing opportunities for current and future practitioners as psychedelic treatments become integrated into mainstream clinical care.

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ORCID

Nicolas G. Glynos PhD http://orcid.org/0000-0002-6952-131X

Data availability statement

The data that support these findings are available from the corresponding author (KFB) upon request.

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