




Preferences and Support for Psychedelic Policies and Practices Among Those Using Psychedelics

Daniel J. Kruger, Julie Barron, Moss Herberholz & Kevin F. Boehnke

To cite this article: Daniel J. Kruger, Julie Barron, Moss Herberholz & Kevin F. Boehnke (2023): Preferences and Support for Psychedelic Policies and Practices Among Those Using Psychedelics, Journal of Psychoactive Drugs, DOI: [10.1080/02791072.2023.2228784](https://doi.org/10.1080/02791072.2023.2228784)

To link to this article: <https://doi.org/10.1080/02791072.2023.2228784>

 View supplementary material 

 Published online: 23 Jun 2023.


 Submit your article to this journal 

 View related articles 

 View Crossmark data 



Preferences and Support for Psychedelic Policies and Practices Among Those Using Psychedelics

Daniel J. Kruger PhD ^{a,b}, Julie Barron MSW^{c,d,e}, Moss Herberholz LLMSW^{d,f}, and Kevin F. Boehnke PhD^b

^aPopulation Studies Center, Institute for Social Research, University of Michigan, Ann Arbor, MI, USA; ^bAnesthesiology Department and Chronic Pain and Fatigue Research Center, University of Michigan Medical School, Ann Arbor, MI, USA; ^cBlue Sage Health Consulting, Ann Arbor, MI, USA; ^dMichigan Psychedelic Society, Ann Arbor, MI, USA; ^eDecriminalize Nature, Michigan, Ann Arbor, MI, USA; ^fThe Radical Well-Being Center, Southfield, MI, USA

ABSTRACT

Legal, scientific, and social landscapes for psychedelics are changing rapidly. Differences of opinion exist among key stakeholders regarding regulatory control, models of provisioning psychedelic therapy, and medicalization, decriminalization, and/or legalization policies. We assessed the policy preferences of people using psychedelics naturalistically ($N = 1221$) to understand how they aligned and differed with institutional entities and existing psychedelic policies. Three quarters of participants would support decriminalization and legalization. On average, participants strongly supported individuals being legally able to grow and possess psychedelic plants and/or fungi for personal consumption. Trends included more support for natural over synthetic substances, self-production and consumption over gifting, gifting over sales, and administration of psychedelics with therapeutic support than without therapeutic support. Participants were concerned about pharmaceutical-like policy models, including patents of natural and synthetic psychedelic compounds. Participants were mostly from the State of Michigan, though geographical differences were minor. Those who identified as a psychedelic guide, educator, or therapist had small yet extensive differences from those who did not. As psychedelic liberalization continues to advance, it is critical for policymakers to consider these preferences to ensure laws provide safe and equitable access to these substances and appropriate medical support for their use.

ARTICLE HISTORY

Received 21 February 2023
Revised 11 Jun 2023
Accepted 26 May 2023

KEYWORDS



Psychedelics; policy; community; preferences; community-based research


Introduction

The Schedule 1 status of psychedelic drugs under the United Nations Conventions and the United States (U.S.) Federal Controlled Substances Act has impeded research on the therapeutic use of these substances, despite the lack of evidence base for a policy that exaggerates the harms and risks of these substances (Nutt, Spriggs, and Erritzoe 2023). The legal and social landscapes for psychedelics are changing rapidly in what has been called a “psychedelic renaissance” (Sessa 2012). Legislative changes across several countries, U.S. States, Canadian Provinces, and Australia are liberalizing psychedelic access for personal use (Aday, Bloesch, and Davoli 2020) and institutional health care (Psychedelic Alpha 2022). There is increasing personal use of psychedelics in the U.S. over the past decade (Yockey and King 2021; Yockey, Vidourek, and King 2020), with surveys reporting self-medication as a common reason for naturalistic

psychedelic use (Glynos et al., 2022; Haijen et al., 2018; Lea et al., 2020; Uthaug et al., 2022).

The U.S. Food and Drug Administration (FDA) recently granted breakthrough therapy status for psilocybin and MDMA, and clinical trials have shown promising results for efficacy in treating major depressive disorder (Davis et al., 2021; Goodwin et al., 2022), post-traumatic stress disorder (Mitchell et al., 2021), tobacco addiction (Johnson, Garcia-Romeu, and Griffiths 2017), and alcohol use disorder (Bogenschutz et al., 2015; Garcia-Romeu et al., 2019). However, these drugs are not a panacea, demonstrated by the lack of short-term impact of R-ketamine on Treatment-Resistant Depression (Life Sciences 2023), and adverse events such as suicidal ideation in trials with psilocybin (Goodwin et al., 2022). Further, there are reports of abuse by psychedelic guides, including indigenous practitioners (Maybin and Casserly 2020; Monroe 2017), underground therapists, and clinical trial staff (MacBride 2021; McNamee, Devenot, and Buisson 2023).

CONTACT Daniel J. Kruger  kruger@umich.edu  Population Studies Center, Institute for Social Research, University of Michigan, 426 Thompson St, Ann Arbor, MI 48109-1248

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/02791072.2023.2228784>.

© 2023 Taylor & Francis Group, LLC

The “psychedelic renaissance” brings with it a range of new stakeholders. Dozens of new and established pharmaceutical companies seek to patent new psychedelic formulations and molecules (Nutt, Spriggs, and Erritzoe 2023). Non-profit organizations, such as the Multidisciplinary Association for Psychedelic Studies (MAPS) and Heffter Research Institute are increasing public attention to psychedelic therapies and their medical potential (Andrews and Wright 2022). As clinical trials advance in anticipation of FDA approval of treatments, MAPS has launched a for-profit arm (MAPS PBC) to process the proceeds from the anticipated sale of psychedelic pharmaceuticals (Doblin 2023). Over a dozen academic research centers focused on psychedelics have recently been established. A store advertised as the first legal psychedelic mushroom (though not containing psilocybin or psilocin) dispensary in the U.S. opened in 2022 (Cascio 2022).

With these new stakeholders have come different proposed models for bringing psychedelics into mainstream society. Grassroots ballot initiatives (e.g., Honig, 2019) and City Council resolutions (Stanton, 2020) in several U.S. municipalities have decriminalized psychedelics, making them low priorities for law enforcement but not allowing commercial sales. Oregon voters passed ballot measures that decriminalized small amounts of all drugs, including psychedelics, and allows for psilocybin to be used under the guidance of a licensed facilitator at psilocybin treatment centers (Naftulin 2020). Pharmaceutical companies seek to commercialize and medicalize use of these compounds, including through patenting proprietary formulations of psilocybin (Hallifax, 2022), as well as separate patents for the R- and S- enantiomers of the Schedule III dissociative anesthetic Ketamine. Indeed, the (S)-ketamine enantiomer was approved by the U.S. FDA for the treatment of treatment-resistant depression (TRD) and major depressive disorder associated with suicidal ideation (U.S. Food and Drug Administration 2019). The FDA also approved the clinical trial supporting treatment of TRD with (R)-ketamine (Life Sciences 2022). This mechanism creates the potential for bifurcated schedule, where patented pharmaceutical products are legally marketed, whereas fungal or plant products with chemically identical constituents remain illegal (Noorani 2020). In contrast, nonprofits such as MAPS and the Usona Institute have conducted clinical trials with MDMA (3,4-Methylenedioxymethamphetamine) and psilocybin with an open science approach designed to prevent treatments from being monopolized (Cohen and Marks 2022).

Medically oriented research by universities as well as advocacy from nonprofit organizations and prominent individuals has helped legitimize psychedelic therapies

and increased public awareness (Andrews and Wright 2022). However, differences of opinion exist among stakeholders regarding regulatory control, models of provisioning psychedelic therapy, and medicalization versus decriminalization and/or legalization (Andrews and Wright 2022). There are concerns that regulations may be designed and driven by the interests of a small number of entities with financial resources, as sometimes happened with cannabis in the U.S (Boehnke, Davis, and McAfee 2022; Noorani 2020). Private interests with for-profit business models focused on patenting and garnering FDA approval for psychedelic compounds will likely be a significant factor in shaping future forms of psychedelic-assisted therapies (Andrews and Wright 2022). However, psychedelic researchers and advocates have expressed concerns regarding the granting of patents for broadly defined therapies designed to suppress market competition, which could also interfere with individual or commercial efforts to grow the original plant or fungus (Hausfeld 2020).

Given the rapid changes in psychedelic policies it is critical to assess and document the policy preferences of the broader psychedelics community. Documenting these preferences gives voice to stakeholders who lack the financial resources to achieve policy changes. We recognize that “psychedelics community” is a heterogeneous ensemble who may share desire to defend their interests and practices but may have many different stances on the ideal pathways for psychedelic legitimization (Noorani 2020). This project was conducted to assess and document the policy preferences of naturalistic users of psychedelics with the intent of guiding policy makers, researchers, and healthcare providers. We conducted a large-scale survey on attitudes toward psychedelic policies and practices following the principles of community-based collaborative research (e.g., Israel et al., 2010; Kelly 1971; Lewin 1946; Rappaport 1987), including the involvement of members of the local psychedelic advocacy community in every stage of the project and consensus decision making.

Methods

Participant recruitment and eligibility

We recruited participants from September 18 to November 05, 2022 in person and via posted advertisements at Entheofest, a psychedelic advocacy event on the afternoon of September 18, 2022 in Ann Arbor, MI (17.1% of participants), as well as via e-mail listservs and social media platforms (e.g., Reddit, Facebook; 82.9% of participants). We set up a table with a canopy at

Enthefest and notified passing pedestrians about the survey. We provided a QR code for individuals to scan with their phone to access the survey, though we noted that participants could complete the survey after the event. No participants who were visibly intoxicated were recruited. The recruitment script read, “Psychedelic research is surging, and policies are changing quickly. We are conducting a survey to amplify the voice of the psychedelic community in guiding policy-makers, researchers, and healthcare providers. The survey does not collect any information that could be used to identify you.” Participants completed an anonymous, confidential online Qualtrics (Provo, UT) survey with the “Prevent Ballot Box Stuffing” setting activated to prevent duplicate responses. No metadata (e.g., IP Address, location) were collected. Individuals needed to be 18 or more years of age to participate. An informed consent form was displayed on the webpage, and participants who agreed to the consent terms proceeded to the survey pages.

Demographics

We collected responses on respondents’ age, gender, race, annual household income, education, and location (Country, U.S. State, etc.). We also asked participants to identify the roles they played in relation to psychedelics (e.g., therapist, researcher, guide), with the ability to select all that applied.

Support of psychedelic policies and practices

This survey was one component of a larger project investigating the naturalistic use of psychedelics. We collaboratively designed policy preference items with organizers of psychedelic advocacy groups (Michigan Psychedelic Society, Decriminalize Nature Michigan), psychedelic therapists, and academics experienced in survey design and psychedelic research. We first asked if participants had completed this survey before, participant age, and “Have you ever taken a psychedelic substance (for example, psilocybin mushrooms, LSD, DMT, 5-MeO-DMT, ayahuasca, mescaline, ketamine, MDMA, 2C-B, ibogaine)?” with response options: Yes, No. We then asked participants, “Would you be able to

identify the differences between decriminalization, medicalization, and legalization of psychedelics” with response options: Yes, No, and Don’t Know. Following this question, we provided policy descriptions (Table 1) and asked “Which do you support for psychedelics? (Select all that apply)” and “Which would you prefer for psychedelics if you could only choose one?” with response options: “Legalization,” “Decriminalization,” “Medicalization,” “Current Federal laws,” “Don’t know,” and “Other.” Response options other than “Don’t know” and “Other” were presented in randomized order.

We next asked participants the degree to which they would support specific policies and practices regarding psychedelics. We asked, “To what degree would you support individuals being legally able to...” followed by specific items such as “Gift psychedelic plants and/or fungi to others,” with response options: Not at all, Somewhat, Moderately, Very much, and Completely. Specific items were presented simultaneously in randomized order. We next asked participants their level of support for individuals being legally able to grow or synthesize, possess, gift, and sell psychedelics; “To what degree would you support...” followed by specific items such as “Caregivers who can provide psychedelics to patients with medical authorizations,” with response options: Not at all, Somewhat, Moderately, Very much, and Completely. These items were based in part on previous ballot and legislation initiatives (whether passed or not).

All surveys and procedures were approved as an exempt study by the Health Sciences and Behavioral Sciences Institutional Review Board at the University of Michigan. Participants could stop taking the survey at any time and were not compensated.

Statistical analyses

We used chi-square tests for non-parametric data to examine differences in support and preferences for legalization, decriminalization, medicalization, and current federal laws. A multiple comparison procedure was used to identify significantly different levels of support. First, options were sorted by the proportion of participants supporting (or choosing) each policy. Next, chi-square

Table 1. Policy descriptions.

Legalization	Psychedelics are legally available for purchase by the adult population, sold and regulated similarly to tobacco and alcohol.
Decriminalization	Possession, use, and cultivation by adults is not prosecuted unless coupled with other illegal activities. The commercial production and sale of psychedelics remains illegal.
Medicalization	Psychedelics are legally available exclusively in healthcare settings by licensed healthcare professionals. The commercial production and sale of psychedelics, as well as possession, use, and cultivation by adults remains illegal.
Current Federal laws	Under the current Federal laws, the production, sale, and use of psychedelics is illegal, with the exception of the medical and therapeutic use of ketamine in authorized settings. Possession, use, and cultivation by adults is illegal.

tests examined differences in adjacent proportions. If proportions did not differ, the item with the highest proportion was compared to the next policy in the set. Comparisons were made until a significant difference was found. A similar multiple comparison procedure was used to identify significantly different levels of support among the policies and practices. First, policy and practice preference items were sorted by mean scores. Next, independent samples *t*-tests compared differences between adjacent items. If scores (i.e., level of support) did not differ, the item with the higher mean was compared to the next item in the set. Comparisons were made until a significant difference was found. Items that did not significantly differ from each other in mean scores were assigned the same Group letter, items with different Group letters exhibited significantly different levels of support. The response option with the scale value nearest to the mean score of each policy and practice support item was assigned to that item.

Post-hoc analyses compared results for subpopulations: Michigan residents to vs. non-Michigan residents, participants recruited at Entheofest to vs. those recruited online, and participants who identified as a psychedelic guide, educator, or therapist (GETs) vs. to those who did not identify as a GET. Chi-square tests examined differences in proportions supporting and choosing policies (legalization, decriminalization, medicalization, current Federal laws). Independent samples *t*-tests compared differences in support scores for the legality of individuals' activities, as well as policies and practices.

Results

Survey completion

There were 1287 participants who completed the survey (59.8% completion rate), 66 participants who had not taken a psychedelic substance were excluded, analyses were conducted on the remaining 1221. Participants ($N = 1221$, Table 2) were from 42 U.S. States (96.3%), Canada (0.7%), and another country (3.0%). The highest proportion of participants were from Michigan (62.1%), followed by California (6.2%), Ohio (2.3%), Washington (2.1%), New York (2.0%), and Florida (1.8%). Nine out of ten participants (90.6%) indicated that they would be able to identify the differences between decriminalization, medicalization, and legalization of psychedelics, 1.9% answered "No," and 7.5% did not answer the item. When given the option to pick one or more, Three-quarters of participants supported legalization and decriminalization, about half

supported medicalization and about 2% supported the current Federal laws (Table 3). When choosing only one, over half of participants chose legalization, a little under a third chose decriminalization, and one in ten chose medicalization.

Participants on average completely supported individuals being legally able to possess psychedelic plants and/or fungi and grow their own psychedelic plants and/or fungi for personal consumption (Table 4). Participants on average very much supported individuals being legally able to gift psychedelic plants and/or fungi to others, sell psychedelic plants and/or fungi as individuals and not as corporations, possess synthesized psychedelic chemicals, and synthesize their own psychedelic chemicals for personal consumption. Participants on average moderately supported individuals being legally able to gift synthesized psychedelic chemicals to others and sell synthesized psychedelic chemicals as individuals and not as corporations. There were significant differences in support for every item, declining in the order presented above (Table 4).

Participants on average completely supported psychedelics used for religious rituals or spiritual experiences within a group setting without required fees and therapists administering psychedelics during guided therapeutic sessions (Table 5). Participants on average very much supported caregivers providing psychedelics to patients with medical authorizations,

psychedelic dispensaries with legal sales resembling cannabis dispensaries, healthcare professionals prescribing psychedelics for use outside of healthcare settings, regulations on testing and standardized quality control, and psychedelics used for non-religious, non-spiritual experiences within a group setting with fees required. Participants on average moderately supported healthcare professionals administering psychedelics without therapeutic support, and only somewhat or did not at all support companies obtaining patents (and exclusive rights) for novel or existing psychedelic products. There were significant differences in support between most items, declining in the order presented above (Table 5).

Participants who were Michigan residents exhibited greater support for medicalization of psychedelics than those who did not live in Michigan (Table S1). There were no differences in support for the legality of individual behaviors (e.g., possessing psychedelic plants and/or fungi) by location of residence (Table S2). Michigan residents expressed more support for therapists administering psychedelics during guided therapeutic sessions, healthcare professionals prescribing psychedelics

Table 2. Participant Descriptives (*N* = 1221).

Descriptive	All	GETs	Non-GETs
Gender			
Women	48.4%	46.5%	49.2%
Men	46.8%	48.3%	45.6%
Non-Binary	2.1%	2.0%	2.1%
Transgender	0.5%	0.4%	0.5%
Other	2.2%	2.2%	2.1%
Age in years (M, SD, range)	39, 12, 18–84	38, 12, 20–84	39, 12, 20–77
Education in years (M, SD, range)***			
High school graduate, GED, or less	16, 2, 10–20	16, 3, 10–20	15, 2, 10–20
Some college, technical, or associate’s degree	6.4%	6.2%	6.6%
Bachelor’s Degree	34.0%	31.6%	35.4%
Master’s, Doctorate or Professional Degree	32.0%	26.8%	35.2%
	27.5%	35.4%	22.8%
Annual household income			
\$50,000 or less	35.8%	37.6%	34.6%
\$50,001–\$100,000	31.3%	31.0%	31.5%
\$100,001–\$150,000	17.0%	16.1%	17.8%
More than \$150,000	15.8%	15.4%	16.0%
Races/ethnicities (inclusive)			
White**	84.6%	79.7%	86.4%
Hispanic/Latino/a/x	6.1%	7.5%	5.3%
Native American***	4.3%	7.7%	2.2%
African American/Black	3.2%	3.7%	2.9%
Asian	2.8%	2.9%	2.7%
Native Hawaiian/Pacific Islander	0.4%	0.2%	0.5%
Other	4.8%	7.7%	3.0%
Roles in relation to psychedelics (select all that apply)			
Guide***	22.4%	60.1%	0%
Educator***	21.0%	56.6%	0%
Therapist***	11.0%	29.5%	0%
Researcher – Academic***	6.7%	12.1%	3.5%
Healthcare provider***	6.6%	12.6%	3.1%
Chemist***	4.8%	10.6%	1.4%
Author***	4.3%	10.1%	0.9%
Trainer***	3.2%	7.7%	0.5%
Researcher – Industry***	2.5%	5.1%	1.0%
Policymaker***	2.2%	4.8%	0.7%
Where did you hear about the survey?			
Social Media*	57.2%	53.1%	59.6%
Email	26.5%	28.0%	25.7%
Entheofest**	7.9%	11.1%	6.1%
Other source	7.8%	7.5%	8.0%
(Missing)	0.6%	0.4%	0.7%

p* < .05, ** *p* < .01, **p* < .001; GET = Guide, Educator, and/or Therapist.

Table 3. Policy preferences by proportions of participants.

Policies	Support		Choose	
	%	Group	%	Group
Legalization	75.3	a	58.4	a
Decriminalization	74.7	a	29.1	b
Medicalization	54.0	b	10.3	c
Other	6.9	c	1.6	d
Current Federal laws	1.6	d	0.3	e
Don't know	0.6	e	0.4	e

Support = Which do you support for psychedelics? (Select all that apply); Choose = Which would you prefer for psychedelics if you could only choose one? Items with shared Group letters do not significantly differ from each other in proportions of respondents, items not sharing Groups letters are significantly different in proportions of respondents.

for use outside of healthcare settings, psychedelics utilized for non-religious, non-spiritual experiences within a group setting with fees required, healthcare professionals administering psychedelics without therapeutic support, companies obtaining patents (and exclusive rights) for novel psychedelic products that they create,

and companies obtaining patents (and exclusive rights) for specific uses of existing psychedelics (Table S3). Effect sizes were generally very small.

Participants who were recruited at Entheofest reported greater support for decriminalization, were less likely to support legalization (Table S1) and

Table 4. To what degree would you support individuals being legally able to.

	<i>M</i>	<i>SD</i>	Group	<i>d</i>	Scale value
Possess psychedelic plants and/or fungi	4.79	0.54	a		Completely
Grow their own psychedelic plants and/or fungi for personal consumption.	4.70	0.66	b	0.19	Completely
Gift psychedelic plants and/or fungi to others	4.46	0.93	c	0.31	Very much
Sell psychedelic plants and/or fungi as individuals and not as corporations	4.05	1.15	d	0.49	Very much
Possess synthesized psychedelic chemicals	3.96	1.30	e	0.07	Very much
Synthesize their own psychedelic chemicals for personal consumption	3.63	1.41	f	0.35	Very much
Gift synthesized psychedelic chemicals to others	3.49	1.43	g	0.12	Moderately
Sell synthesized psychedelic chemicals as individuals and not as corporations	3.09	1.42	h	0.45	Moderately

Items were presented to participants in randomized order and are sorted here by response means. Scores for items with the same Group letter do not significantly differ from each other, items with different Group letters have significantly different scores. Scale value indicates nearest response option to mean score.

Table 5. To what degree would you support.

	<i>M</i>	<i>SD</i>	Group	<i>d</i>	Scale value
Psychedelics utilized for religious rituals or spiritual experiences within a group setting without required fees	4.6	0.82	a		Completely
Therapists administering psychedelics during guided therapeutic sessions	4.56	0.76	a	0.05	Completely
Caregivers who can provide psychedelics to patients with medical authorizations	4.33	0.93	b	0.25	Very much
Psychedelic dispensaries with legal sales similar to cannabis dispensaries	4.06	1.23	c	0.22	Very much
Healthcare professionals prescribing psychedelics for use outside of healthcare settings	4.02	1.11	c	0.03	Very much
Regulations on testing and standardized quality control	3.87	1.17	d	0.10	Very much
Psychedelics utilized for non-religious, non-spiritual experiences within a group setting with fees required	3.67	1.27	e	0.13	Very much
Healthcare professionals administering psychedelics without therapeutic support	2.71	1.34	f	0.63	Moderately
Companies obtaining patents (and exclusive rights) for NOVEL psychedelic products that they create	2.22	1.25	g	0.30	Somewhat
Companies obtaining patents (and exclusive rights) for specific uses of EXISTING psychedelics (e.g., 5-MeO-DMT to treat a psychological disorder)	1.65	1.22	h	0.43	Somewhat

Items were presented to participants in randomized order and are sorted here by response means. Scores for items with the same Group letter do not significantly differ from each other, items with different Group letters have significantly different scores. Scale value indicates nearest response option to mean score.

reported greater support for the legality of all individual behaviors compared to those who were recruited online (Table S2). Participants who were recruited at Entheofest also reported less support for psychedelic dispensaries with legal sales resembling cannabis dispensaries and regulations on testing and standardized quality control compared to those who were recruited online (Table S3). Effect sizes were generally small.

Participants who identified as a psychedelic guide, educator, or therapist (GETs) reported less support for legalization and medicalization of psychedelics, and more support for the decriminalization of psychedelics, compared to non-GETs (Table S1). GETs were less likely to prefer legalization and more likely to prefer decriminalization of psychedelics compared to non-GETs. GETs reported greater support for the legality of all individual behaviors other than selling synthesized psychedelic chemicals compared to non-GETs (Table S2). Effect sizes ranged from very small to small. GETs expressed more support for psychedelics utilized for religious rituals or spiritual experiences within a group setting without required fees and less support for psychedelic dispensaries with legal sales similar to cannabis dispensaries, regulations on testing and standardized quality control, healthcare professionals administering psychedelics without therapeutic support, and companies obtaining patents (and exclusive rights) for novel psychedelic products that they create compared to non-

GETs (Table S3). These effect sizes were very small. Participants who identified as a psychedelic guide, educator, or therapist (GETs) reported having more education, $t(1212) = 3.27$, $p < .001$, $d = 0.19$ (Table 2); were more likely to identify as Native American and less likely to identify as White; were more likely to hear about the survey through Entheofest and less likely to hear about the survey through social media; and were more likely to identify with every role related to psychedelics (e.g., academic researcher, healthcare provider, chemist, author, trainer, industry researcher, and policymaker).

Discussion

To our knowledge, this is the first large-scale study to assess preferences regarding psychedelic policies and practices among those using psychedelics. Participants generally supported legalization and decriminalization policies, with only 1.9% supporting current federal laws. As legalization and decriminalization policies are heterogeneous and may include various elements (e.g., testing requirements, prescription drug monitoring programs; Siegel et al., 2023), our findings highlight several key trends in the perspectives of current psychedelic users that may inform future psychedelic policies. Participants enthusiastically supported policies that would allow people to grow and possess psychedelics,

consume psychedelics for religious purposes, allow for caregivers who could provide psychedelics to authorized medical consumers, and have access to licensed medical professionals for psychedelic experiences. In contrast, participants expressed little support for regulatory models that allowed patents for naturally occurring or synthesized psychedelic compounds, as well as those enabling healthcare providers to give psychedelic compounds without therapeutic support.

Generally, these preferences align with the new State laws in Oregon (Legislature 2021) and Colorado (Ballotpedia 2022), which are the only states that have passed such legislations in the U.S. Proposition 122 in Colorado, passed in November 2022, will create programs to allow adults 21 or older to possess and share psychedelic plants and fungi (though excluding sales), consume them under supervised care, protect them from legal penalties, set up a system of authorized providers (without any mention of patents), and regulate psychedelics to protect public health. Measure 110 in Oregon, passed in 2020, reduced penalties for noncommercial possession of certain controlled substances (including psychedelics) from a misdemeanor or felony to a 100\$ fine or health assessment. Measure 109 in Oregon, also passed in 2020, required the Oregon Health Authority to establish a program that would allow psilocybin to be regulated, processed, delivered, and possessed exclusively for psilocybin-assisted therapy services under the auspices of a licensed facilitator. This measure also mandated testing, labeling, and packaging requirements for psilocybin, which would also be subject to sales tax.

Most differences between subpopulations were small or very small. Participants who attended Entheofest demonstrated greater support for policies consistent with the advocacy content of the event, such as greater support for psychedelic decriminalization and individual freedoms related to psychedelics. Entheofest participants expressed less support for aspects related to legalization and commercial sale of psychedelics, including psychedelic dispensaries and regulations on testing and standardized quality control. Similarly, participants who identified as a psychedelic guide, educator, or therapist (GETs) were more supportive of the decriminalization of psychedelics and less supportive of the legalization and medicalization of psychedelics, compared to non-GETs. GETs reported more support for most individual freedoms related to psychedelics than non-GETs. GETs expressed less support for aspects related to legalization and commercial sale of psychedelics, such as psychedelic dispensaries and regulations on testing and standardized quality control, as well as healthcare professionals administering psychedelics

without therapeutic support, and companies obtaining patents and exclusive rights to novel psychedelics. Differences between GETs and non-GETs may be due to in part to their greater engagement in psychedelics-related activities, and/or more extensive personal experience with psychedelics. GETs reported both a higher frequency of psychedelic use, $t(1215) = 4.89, p < .001, d = 0.29$, and a greater number of different psychedelics used, $t(1219) = 10.52, p < .001, d = 0.62$.

Psychedelic drugs are becoming increasingly accessible through state and municipal policy measures. The policy preferences expressed in our findings are consistent with many medical cannabis policies. These include growing and gifting one's own cannabis, cannabis dispensaries (which do not sell products that are patented nor approved by the U.S. FDA), and caregivers able to provide cannabis to authorized medical consumers. This congruence is logical, given that cannabis liberalization provided a legal precedent and template for how to advance decriminalization and legalization policies for a Schedule I drug. However, one key difference between medical cannabis and psychedelics is related to the importance of therapeutic guidance and support for using these substances, a point highlighted by respondents' strong level of support for such policy elements. Indeed, although people must obtain medical authorization from a healthcare provider to legally possess medical cannabis products, there are generally no mandates for continued care or support from that healthcare provider. In contrast, the scientific literature currently supports psychedelic-assisted therapy (psychedelics given with therapeutic support) as the safest way to provide treatment with these compounds. Given the state of vulnerability and suggestibility elicited by psychedelics (especially at high doses; McNamee, Devenot, and Buisson 2023), we believe that ensuring competent support within these laws is crucial to protect individuals using psychedelics, especially for medical purposes.

Although Colorado and Oregon both have statewide measures allowing psilocybin-assisted therapy, a recent analysis showed that this is not common among recent statewide psychedelic reform bills from 2019 to 2022 (Siegel et al., 2023). Of the 74 bills introduced (which have increased in number from 5 in 2019 to 36 in 2022), 43 proposed decriminalization, but only 15 required some level of training or licensure for providers who prescribed psychedelics or offered psychedelic-assisted therapy, 10 required that psychedelics be restricted to medical environments, and 5 mandated physicians for prescribing psychedelics or diagnosing patients as suitable for therapy. This same analysis predicted that, based on the speed of cannabis liberalization policies,

over half of states will have legalized psychedelics by 2037 (Siegel et al., 2023). Skillfully implementing these rapid policy changes will require input from those who use psychedelics naturalistically, providing stronger protections for people using psychedelics, as consistent with the policy preferences of those in our survey.

The use of convenience samples recruited through advertisements on social media and online discussion forums limits generalizability. Due to the survey methods, it was not possible to calculate a response rate as we do not know how many people had access to the survey link. Most participants were from the State of Michigan. We provided brief descriptions of psychedelic-related policies rather than testing participants' comprehension of policies. These descriptions were designed to be brief, rather than comprehensive, and may differ from the current and eventual implementation of policy. We did not define "Healthcare professionals," other than noting that they had prescription privileges. Because participants were mostly White and from the U.S., our findings may differ from those of other ethnicities or nationalities. These limitations emphasize the need for research involving diverse groups and population-representative samples of psychedelic users. Many of the specific policies and practices with the most support are consistent with decriminalization. There is currently no standardized definition of decriminalization, and initiatives and policies differ in content (Adams 2023). Finally, we did not assess whether participants were members of religious groups with ritual psychedelic use or assess participants' knowledge of these practices. At the same time, unlike other studies of psychedelic users which heavily oversample men (e.g., Argento et al., 2022; Garcia-Romeu et al., 2019; Garcia-Romeu et al., 2020; Szigeti et al., 2021), this study included more representative proportions of women and men, and about 5% of participants identified as non-binary/transgender/other gender individuals. Using the principles of community-based participatory research also strengthened our initial survey design, ensuring that we were asking questions relevant to people using psychedelics.

In this large survey study of people using psychedelics and involved in psychedelic spaces, we found that respondents strongly support policy models that allow people to grow, possess, and gift psychedelic substances, as well as obtain therapeutic support when using psychedelics for medical reasons. Participants were concerned about policy models that align with traditional pharmaceutical models, including patents of natural and synthetic psychedelic compounds. As psychedelic liberalization continues to advance, we believe it is critical for policymakers to consider these preferences to

ensure laws provide safe and equitable access to these substances and appropriate medical support for their use.

Acknowledgments

We are very grateful to the participants for their time and willingness to complete the survey for this study.

Disclosure statement

This research did not receive any specific grants from funding agencies in the public, commercial, or not-for-profit sectors. KFB sits on a data safety and monitoring board for an ongoing clinical trial with Vireo Health (unpaid). JB is the Founder/President of the Michigan Psychedelic Society, Co-Director of Decriminalize Nature Michigan, Board Member of Decriminalize Nature, Founder/Executive Director of Decriminalize Nature Ann Arbor (all unpaid) and is a Psychedelic Integration and Music Therapist at Blue Sage Health Consulting. MH is a therapist with a specialty in Psychedelic Integration at The Radical Well-Being Center. DJK has no conflicts of interest to declare.

Funding

The author(s) reported there is no funding associated with the work featured in this article.

ORCID

Daniel J. Kruger PhD  <http://orcid.org/0000-0002-2757-7016>

Data availability statement

The data that support these findings are available from the corresponding author (DJK) upon request <http://www-personal.umich.edu/~kruger/>.

References

- Adams, J. H. 2023, May 3. The varieties of 'psychedelic decriminalization'. The challenging psychedelic experiences project. Accessed May 5, 2023. <https://www.ecstaticintegration.org/p/the-varieties-of-psychedelic-decriminalization>
- Aday, J. S., E. K. Bloesch, and C. C. Davoli. 2020. A year of expansion in psychedelic research, industry, and deregulation. *Drug Science, Policy and Law* 6:1–6. 2019. doi:10.1177/2050324520974484.
- Andrews, T., and K. Wright. 2022. The frontiers of new psychedelic therapies: A survey of sociological themes and issues. *Sociology Compass* 16 (2):e12959. doi:10.1111/soc4.12959.
- Argento, E., M. E. Socias, K. Hayashi, J. Choi, L. Mackay, D. Christie, M. J. Milloy, and K. DeBeck. 2022. Psychedelic use

- is associated with reduced daily opioid use among people who use illicit drugs in a Canadian setting. *The International Journal on Drug Policy* 100:103518. doi:10.1016/j.drugpo.2021.103518.
- Ballotpedia. 2022. Colorado proposition 122, decriminalization and regulated access program for certain psychedelic plants and fungi initiative. Accessed February 3, 2023. https://ballotpedia.org/Colorado_Proposition_122,_Decriminalization_and_Regulated_Access_Program_for_Certain_Psychedelic_Plants_and_Fungi_Initiative_2022#Text_of_measure
- Boehnke, K. F., A. K. Davis, and J. McAfee. 2022. Applying lessons from cannabis to the psychedelic highway: Buckle up and build infrastructure. *JAMA Health Forum* 3 (6): e221618. doi:10.1001/jamahealthforum.2022.1618.
- Bogenschutz, M. P., A. A. Forcehimes, J. A. Pommy, C. E. Wilcox, P. C. Barbosa, and R. J. Strassman. 2015. Psilocybin-assisted treatment for alcohol dependence: A proof-of-concept study. *Journal of Psychopharmacology* 29 (3):289–99. doi:10.1177/0269881114565144.
- Cascio, J. 2022, September 21. First legal mushroom dispensary in U.S. opens in Ybor city. fox 13 news tampa bay. Accessed December 14, 2022. <https://www.fox13news.com/news/first-legal-mushroom-dispensary-in-u-s-opens-in-ybor-city>
- Cohen, I. G., and M. Marks. 2022, February 20. Patents on psychedelics: the next legal battlefront of drug development. *Harvard Law Review* Accessed December 14, 2022. <https://harvardlawreview.org/2022/02/patents-on-psychedelics-the-next-legal-battlefront-of-drug-development/>
- Davis, A. K., F. S. Barrett, D. G. May, M. P. Cosimano, N. D. Sepeda, M. W. Johnson, P. H. Finan, and R. R. Griffiths. 2021. Effects of psilocybin-assisted therapy on major depressive disorder: A randomized clinical trial. *JAMA Psychiatry* 78 (5):481–89. doi:10.1001/jamapsychiatry.2020.3285.
- Doblin, R. 2023, January 23. Rick doblin – the balance at MAPS between public benefit and private profit – psychedelic alpha. psychedelic alpha. <https://psychedelicalpha.com/news/rick-doblin-the-balance-at-maps-between-public-benefit-and-private-profit>. Accessed April 29, 2023.
- Garcia-Romeu, A., A. K. Davis, E. Erowid, F. Erowid, R. R. Griffiths, and M. W. Johnson. 2020. Persisting Reductions in Cannabis, Opioid, and Stimulant Misuse After Naturalistic Psychedelic Use: An Online Survey. *Frontiers in Psychiatry* 10:955. doi:10.3389/fpsy.2019.00955.
- Garcia-Romeu, A., A. K. Davis, F. Erowid, E. Erowid, R. R. Griffiths, and M. W. Johnson. 2019. Cessation and reduction in alcohol consumption and misuse after psychedelic use. *Journal of Psychopharmacology* 33 (9):1088–101. doi:10.1177/0269881119845793.
- Glynos, N. G., C. W. Fields, J. Barron, M. Herberholz, D. J. Kruger, and K. F. Boehnke. 2022. Naturalistic psychedelic use: A world apart from clinical care. *Journal of Psychoactive Drugs*: 1–10. Advance online publication. doi:10.1080/02791072.2022.2108356.
- Goodwin, G. M., S. T. Aaronson, O. Alvarez, P. C. Arden, A. Baker, J. C. Bennett, and E. Malievskaia, R. E. Blom, C. Brennan, D. Bruschi. 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.
- Haijen, E. C. H. M., M. Kaelen, L. Roseman, C. Timmermann, H. Kettner, S. Russ, D. Nutt, R. E. Daws, A. D. G. Hampshire, R. Lorenz, et al., 2018. Predicting responses to psychedelics: A prospective study. *Frontiers in Pharmacology* 9:897. doi:10.3389/fphar.2018.00897.
- Hallifax, J. 2022, June 24. Compass Pathways psilocybin patent upheld. Psychedelic Spotlight. Accessed December 14, 2022. <https://psychedelicspotlight.com/compass-pathways-psilocybin-patent/>
- Hausfeld, R. 2020, September 15. As COMPASS pathways continues its attempts to build a psychedelic monopoly, Usona institute keeps publishing open research. *Psymposia*. Accessed December 14, 2022. <https://www.psymposia.com/magazine/compass-psychedelic-psilocybin-patents-usona-open-science/>
- Honig, E. 2019, May 9. In Close Vote, Denver Becomes 1st U.S. City to Decriminalize Psychedelic Mushrooms. Accessed December 14, 2022. <https://www.npr.org/sections/health-shots/2019/05/09/721660053/in-close-vote-denver-becomes-first-u-s-city-to-decriminalize-psychedelic-mushroom>
- Israel, B. A., C. M. Coombe, R. R. Cheezum, A. J. Schulz, R. J. McGranaghan, R. Lichtenstein, A. G. Reyes, J. Clement, and A. Burris. 2010. Community-based participatory research: A capacity-building approach for policy advocacy aimed at eliminating health disparities. *American Journal of Public Health* 100 (11):2094–102. doi:10.2105/AJPH.2009.170506.
- Johnson, M. W., A. Garcia-Romeu, and R. R. Griffiths. 2017. Long-term follow-up of psilocybin-facilitated smoking cessation. *The American Journal of Drug and Alcohol Abuse* 43 (1):55–60. doi:10.3109/00952990.2016.1170135.
- Kelly, J. G. 1971. Qualities for the community psychologist. *American Psychologist* 26 (10):897–903. doi:10.1037/h0032231.
- Lea, T., N. Amada, H. Jungaberle, H. Schecke, and M. Klein. 2020. Microdosing psychedelics: Motivations, subjective effects and harm reduction. *The International Journal on Drug Policy* 75:102600. doi:10.1016/j.drugpo.2019.11.008.
- Legislature, O. (2021). Chapter 475A — psilocybin regulation 2021 Edition. Accessed February 3, 2023. https://www.oregonlegislature.gov/bills_laws/ors/ors475A.html
- Lewin, K. 1946. Action research and minority problems. In *Resolving social conflicts, selected papers on group dynamic*, 143–152. eds G. W. Lewin, Washington DC, USA: American Psychological Association. doi:10.1037/10269-013
- Life Sciences, A. 2022, January 12. Atai life sciences announces fda investigational new drug (ind) clearance for pcn-101 r-ketamine program. Accessed February 3, 2023. <https://atai.life/2022/01/12/atai-life-sciences-announces-fda-investigational-new-drug-ind-clearance-for-pcn-101-r-ketamine-program/>
- Life Sciences, A. 2023, January 9. Atai life sciences announces results from phase 2a trial of pcn-101 (r-ketamine) for treatment-resistant depression. Accessed April 20, 2023. <https://atai.life/2023/01/09/atai-life-sciences-announces-results-from-phase-2a-trial-of-pcn-101-r-ketamine-for-treatment-resistant-depression/>

- MacBride, K. 2021. Psychedelic-assisted therapy is bigger than ever, but it's at risk of being compromised by alleged abuse. Accessed November 18, 2021. <https://www.inverse.com/mind-body/grossbard-bourzat-psychedelic-assisted-therapy-abuse>.
- Maybin, S., and J. Casserly. 2020, January 16. I was sexually abused by a shaman at an ayahuasca retreat. *BBC News*. Accessed April 20, 2023. <https://www.bbc.com/news/stories-51053580>.
- McNamee, S., N. Devenot, and M. Buisson. 2023. Studying harms is key to improving psychedelic-assisted therapy—participants call for changes to research Landscape. *JAMA Psychiatry* 80 (5):411. Published online March 29, 2023. doi:10.1001/jamapsychiatry.2023.0099.
- Mitchell, J. M., M. Bogenschutz, A. Lilienstein, C. Harrison, S. Kleiman, K. Parker-Guilbert, G. Of'alora, M. Garas, W. Paleos, C. 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.
- Monroe, R. 2017, January 18. Sexual assault in the Amazon: As the ayahuasca tourism industry grows, so do accounts of abuse. *New York Magazine*. <https://www.thecut.com/2021/11/sexual-assault-ayahuasca-tourism.html>. Accessed April 20, 2023.
- Naftulin, J. 2020 November 4. Oregon has become the first state to legalize 'magic' mushrooms for therapeutic use. here's what that means. *Business Insider*. Accessed December 14, 2022 <https://www.businessinsider.com/oregon-first-ever-state-to-legalize-psilocybin-for-therapeutic-use-2020-11>.
- Noorani, T. 2020. Making psychedelics into medicines: The politics and paradoxes of medicalization. *Journal of Psychedelic Studies* 4 (1):34–39. doi:10.1556/2054.2019.018.
- Nutt, D., M. Spriggs, and D. Erritzoe. 2023. Psychedelics therapeutics: What we know, what we think, and what we need to research. *Neuropharmacology* 223:109257. doi:10.1016/j.neuropharm.2022.109257.
- Psychedelic Alpha. 2022. Psychedelics Legalization & Decriminalization Tracker. Psychedelic Alpha. Accessed December 14, 2022. <https://psychedelicalpha.com/data/psychedelic-laws>.
- Rappaport, J. 1987. Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology* 15 (2):121–48. doi:10.1007/BF00919275.
- Sessa, B. 2012. *The psychedelic renaissance: reassessing the role of psychedelic drugs in 21st century psychiatry and society*. London: Muswell Hill Press.
- Siegel, J. S., J. E. Daily, D. A. Perry, and G. E. Nicol. 2023. Psychedelic drug legislative reform and legalization in the US. *JAMA Psychiatry* 80 (1):77–83. doi:10.1001/jamapsychiatry.2022.4101.
- Stanton, R. 2020, September 21. Ann Arbor OKs move to decriminalize psychedelic mushrooms, plants. Accessed December 14, 2022. <https://www.mlive.com/news/ann-arbor/2020/09/ann-arbor-oks-move-to-decriminalize-psychedelic-mushrooms-plants.html>
- Szigeti, B., L. Kartner, A. Blemings, F. Rosas, A. Feilding, D. J. Nutt, R. L. Carhart-Harris, and D. Erritzoe. 2021. Self-blinding citizen science to explore psychedelic microdosing. *eLife* 10:e62878. doi:10.7554/eLife.62878.
- U.S. Food and Drug Administration. 2019, March 9. FDA approves new nasal spray medication for treatment-resistant depression; available only at a certified doctor's office or clinic. Accessed January 11, 2032. <https://www.fda.gov/news-events/press-announcements/fda-approves-new-nasal-spray-medication-treatment-resistant-depression-available-only-certified>
- Uthaug, M. V., A. K. Davis, T. F. Haas, D. Davis, S. B. Dolan, R. Lancelotta, C. Timmermann, and J. G. Ramaekers. 2022. The epidemiology of mescaline use: Pattern of use, motivations for consumption, and perceived consequences, benefits, and acute and enduring subjective effects. *Journal of Psychopharmacology* 36 (3):309–20. doi:10.1177/02698811211013583.
- Yockey, R. A., and K. King. 2021. Use of psilocybin (“mushrooms”) among US adults: 2015–2018. *Journal of Psychedelic Studies* 5 (1):17–21. doi:10.1556/2054.2020.00159.
- Yockey, R. A., R. A. Vidourek, and K. A. King. 2020. Trends in LSD use among US adults: 2015–2018. *Drug and Alcohol Dependence* 212:108071. doi:10.1016/j.drugalcdep.2020.108071.