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ORIGINAL RESEARCH PAPER

An investigation into the varieties of extended difficulties following psychedelic drug use: Duration, severity and helpful coping strategies

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ABSTRACT

Psychedelic drugs show promising therapeutic potential; however, some users experience extended difficulties following their use. This study investigated the prevalence, severity, duration, and associated coping strategies of post-psychedelic difficulties. We conducted an online survey of 159 participants, all of whom reported experiencing difficulties lasting more than one day after psychedelic use within the past 2–10 years. Participants rated the severity and duration of 11 types of difficulties and indicated effective coping strategies. Results revealed that social disconnection (72%), anxiety and panic attacks (68%), and existential struggle (65%) were the most prevalent difficulties. Anxiety and panic attacks were rated as most severe, while existential struggle and diminished self-esteem persisted the longest, with mean durations exceeding 15 months. Derealization and depersonalization, despite being common, were consistently rated as less severe than other difficulties. Self-education emerged as the predominant coping strategy for multiple difficulties, including social disconnection and existential struggle. Professional therapy was most effective for depression and diminished self-esteem, while peer and family support were particularly beneficial for managing anxiety and panic attacks. These findings highlight the diverse nature of post-psychedelic difficulties and the varying effectiveness of different coping strategies. Our results contribute to the development of more nuanced, effective approaches to harm reduction and integration in psychedelic use, emphasizing the importance of multifaceted support systems that include professional, educational, and community-based resources.

KEYWORDS

challenging psychedelic experience, adverse effects, coping, extended difficulties

INTRODUCTION

The therapeutic potential of psychedelic drugs is increasingly recognised, yet their administration can result in a spectrum of long-lasting effects. While many individuals report enhanced well-being and personal growth, a notable minority experience neutral or adverse outcomes (Kvam et al., 2023). As the field of psychedelic medicine expands and research advances rapidly, a comprehensive understanding of the negative consequences associated with psychedelic use, along with strategies to mitigate these effects, is essential for the responsible development of the various therapeutic paradigms that include psychedelic usage.

Research on adverse events following psychedelic experiences indicates that approximately 5–25% of users encounter some form of negative or adverse effects, contingent on the drug and context of use. For example, 7% of participants report adverse psychological effects persisting beyond one day after using psilocybin or MDMA (McNamee, Devenot, & Buisson, 2023;

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Rucker et al., 2022). In uncontrolled settings, about 9% of users of classic psychedelic drugs experience functional difficulties lasting more than a day (Simonsson, Hendricks, Chambers, Osika, & Goldberg, 2023), while in another survey, 15% of those using LSD or psilocybin report psychological disturbances extending beyond the acute effects (Kopra et al., 2023). Additionally, around 12% of ayahuasca users seek professional mental health support for adverse effects (Bouso et al., 2022), and 7.6% of general psychedelic users require treatment for persistent psychological symptoms (Carbonaro et al., 2016). A Norwegian survey indicated that 23% reported some adverse reactions, with 4.1% experiencing difficulties lasting over a year (Kvam et al., 2023).

The difficulties reported after psychedelic use are diverse and varied in nature (Bremler, Katati, Shergill, Erritzoe, & Carhart-Harris, 2023). A study by Evans et al. (2023) revealed that the duration of these challenges ranged from less than a week to several years, with 30% reporting issues persisting for a year or more. The reported difficulties included anxiety, panic attacks, social disconnection, derealization, depersonalization, perceptual distortions, sleep disturbances, cognitive confusion, flashbacks, and existential crises. Notably, despite these challenges, 90% of the participants maintained a favourable view of psychedelics. Similarly, Carbonaro et al. (2016) found that 84% of individuals who experienced challenging psilocybin episodes still perceived benefits from the experience.

The perceived benefits reported by many users, despite encountering difficulties, may stem from the process of integrating these challenging experiences. Psychedelics can bring unconscious issues or unresolved psychological conflicts to the surface, and by confronting these challenges, users may gain personal growth or therapeutic insights. Effective integration is often supported by a community that helps individuals make sense of their experiences (Earleywine, Low, Lau, & De Leo, 2022), including shifts in worldview (Timmermann, Watts, & Dupuis, 2022), metaphysical challenges (Sjöstedt-Hughes, 2023), or feelings of "ontological shock" (Argyri et al., 2024; Breeksema & van Elk, 2021). A related concept that links to the potential for harm and benefit in psychedelic usage is that is *belief transmission* (Dupuis, 2021). Dupuis argues that psychedelics, through their ability to induce a state of hypersuggestibility, can be powerful tools for persuasion and enculturation through the transmission of beliefs by the shaman or guide. This can lead to the possibility of mental manipulation for nefarious purposes, such as in cults, as well as to the opportunity of healthy belief change. It further emphasises the vital role of the interplay of personal experience, ritual practice, and social influence in psychedelic usage.

The process of ensuring a positive outcome with psychedelic work starts with preparation for the psychedelic experience. Gorman (2021) developed the transtheoretical framework of supporting individuals who use psychedelics. Central to this approach is the preparation process, with recent studies underscoring its role in enhancing safety, enriching the psychedelic experience, and supporting well-being (McAlpine, Blackburne, & Kamboj, 2024; McAlpine, Sacchet, et al., 2024). Preparation entails understanding the individual's mental and physical health history, discussing expectations and goals, and working through any anxieties or fears that might arise. This preparation phase also addresses the importance of "set and setting", thus ensuring that individuals enter the experience in an emotionally grounded state and within a safe, supportive space. Thoughtful preparation maximizes therapeutic outcomes and reduces the likelihood of overwhelming or destabilizing experiences.

Building on the importance of integration and community support in managing post-psychedelic difficulties, a recent qualitative survey study analysed written accounts from individuals who had experienced extended difficulties following psychedelic use, identifying coping strategies and forms of social support that were beneficial in alleviating these difficulties (Robinson et al., 2024). The most frequently cited individual strategy was meditation. Self-education, such as reading and journaling to process the experience, was the second most helpful approach. Cognitive strategies, including self-talk and cognitive distraction or distancing, were also reported as effective. Embodied, physical strategies, such as spending time in nature, exercising, and practising breathing exercises, provided significant relief. Some participants found value in engaging with work, recreational or creative activities to maintain focus on a productive goal. Additionally, pharmacological interventions, including psychiatric medications and further psychedelic use, were mentioned as helpful by some. Social support, particularly from peers rather than professionals, was crucial; participants emphasised the importance of feeling accepted, validated, and not judged for their experiences. The reciprocal sharing of similar experiences was also found to be particularly beneficial.

Rationale, aims and hypotheses

Recent studies have advanced our understanding of the difficulties some individuals face after psychedelic use and how they cope with these challenges. While it is evident that post-psychedelic difficulties can be categorised into distinct types, there is no published research on the relative severity and duration of the different types, as well as on how coping strategies may vary in response to each type.

To address this gap, our study had two interrelated aims, each with associated hypotheses. The first aim was to investigate the relative prevalence, perceived severity and duration of different types of extended post-psychedelic difficulties. We hypothesized that there would be significant differences in the perceived severity and duration of these different types of difficulties.

The second aim was to examine which coping strategies are most effective in responding to each type of difficulty. Our hypothesis was that the frequency with which specific coping strategies are found helpful would vary depending on the type of difficulty encountered.

METHOD

Participants and sampling

Participation in the study was based on four criteria: (1) having experienced difficulties after using a psychedelic

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drug that negatively impacted functioning for more than a day after the psychedelic experience (with no exclusion based on social context or purpose of use), (2) the psychedelic experience in question occurred between 2 and 10 years prior, (3) participants were aged 18 or over, and (4) participants were proficient or fluent in English. Recruitment was conducted through multiple channels, including social media, a psychology and philosophy newsletter, student email lists, and participants from a previous survey conducted by the authors (Evans et al., 2023). No financial incentives were offered for participation, and all participants provided written consent. The sampling strategy employed was randomized, without purposive stratifications, and yielded a sample with sufficient power for the quantitative analyses conducted.

The study sample comprised 159 participants (34% male, 52% female, 4% non-binary, 11% undisclosed). The majority (28%) were aged 35–44 years, with 74% identifying as white. Participants were predominantly from North America (37%) and Europe (35%), with 32% being American nationals. Educational attainment was high, with 33% holding a Master's degree and 19% holding doctoral degrees.

Procedure

Data was collected anonymously through an online survey specifically designed for this study. The survey was developed based on qualitative data from previous studies on difficulties and coping strategies following psychedelic experiences (Evans et al., 2023; Robinson et al., 2024). The item wordings and response scales were created in accordance with best practises (Krosnick & Presser, 2010), and underwent extensive revisions by the research team to ensure clarity and accuracy.

Demographic information was collected from all participants, including gender, age, ethnicity, nationality, and educational attainment. Participants instructed to reflect on a specific psychedelic experience that resulted in challenges lasting beyond the immediate effects of the drug, occurring between 2 and 10 years prior. If multiple such experiences had occurred, participants were asked to focus on the one they found most difficult to integrate or navigate afterward.

Measures

Psychedelic substance involved. Participants were asked to identify the psychoactive substance(s) involved in the experience they were reporting on, with a forced choice selection as follows: Ayahuasca, Changa, DMT, LSD, Mescaline, Psilocybin, Ketamine, MDMA, Salvia, Cannabis, 5-MeO-DMT, Other - please specify.

Prevalence of difficulties. Participants were presented with 11 distinct types of difficulty identified in previous research (Evans et al., 2023) and asked to select those they had experienced following their psychedelic use. The difficulties (also listed in Table 2) were: social disconnection, anxiety, visual disturbances, paranoia, depression, existential struggle, derealization, depersonalization, difficulty with thinking clearly, diminished self-esteem, and sleep disturbances. This self-selection process allowed for an assessment of the relative prevalence of each difficulty type in the sample.

Severity of difficulties. For each difficulty, participants rated its severity on a 3-point scale: (1) Not severe (no disruption to life), (2) Moderately severe (some minor disruption to life), and (3) Very severe (substantial disruption to life).

Duration of difficulties. Participants reported the duration of each difficulty using a time-based adumbrated interval-level scale: 0–6 months/7–12 months/13–18 months/19–24 months/25–30 months/31–36 months/37 months +.

Coping strategies. To assess helpful coping strategies, participants were provided with a list of options based on prior findings (Robinson et al., 2024). Participants could select up to two strategies per difficulty that they found most helpful. The options were: 1. Meditation/prayer; 2. Reading or viewing materials to educate yourself about your situation and experiences; 3. Physical exercise; 4. Getting therapy or coaching; 5. Support from peers or family; 6. Cultivating attitude of acceptance and surrender; 7. Tai chi/yoga/other embodied practice; 8. Journaling/writing; 9. Being outdoors and in nature; 10. Breathing techniques and strategies; 11. Self-talk/affirmations; 12. Other.

Statistical analysis

We employed statistical techniques to analyse the prevalence, severity, duration, and associated coping strategies of post-psychedelic difficulties. Prevalence of difficulty was calculated as the percentage of total participants reporting each difficulty type. To compare levels of severity and duration across difficulty types, we conducted paired *t*-tests for each difficulty pair, using data from participants who reported *both* difficulties, in order to provide a basis for meaningful comparison.

Given the multiple comparisons (55 tests each for severity and duration), we corrected the required significance threshold to a highly conservative $p < 0.001$. Effect sizes for significant differences were calculated using Cohen's d. To assess the distribution of coping strategies across difficulty types, we performed chi-square tests for each difficulty. With 12 tests conducted, we applied a Bonferroni correction, setting the significance threshold at $p < 0.004$. The frequency of each coping strategy's use was calculated as a percentage for each difficulty type. All statistical analyses were performed using SPSS.

RESULTS

The drugs that elicited the psychedelic experience, which in turn led to extended difficulties that our participants reported, were as follows, in order from most to least prevalent: Psilocybin (59), Ayahuasca (26), LSD (23), MDMA (20), DMT (12), Ketamine (12), Cannabis (11), 5MEO DMT (9), Salvia (4) Mescaline (4) Changa

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(2) and Other (10) (others were Iboga, 2C-B, Nitrous Oxide, 4-ACO-DMT, Yage, Harmala). 21 experiences were elicited by more than one substance.

Participants reported a range of difficulties following their psychedelic experiences (Table 1). The most prevalent were social disconnection (71.7%), anxiety and panic attacks (67.9%), and existential struggle (65.4%). Over half of the participants experienced feelings of depression (61.0%) and derealization (54.7%). Less common, but still notable, were visual or auditory disturbances (21%) and paranoia (21%).

Table 1. Difficulty Types and Number of Participants Reporting each Difficulty (N = 159)

Difficulty Type	No. of participants who reported the difficulty	% of participants who reported the difficulty
1. Sense of social disconnection	114	71.7%
2. Anxiety and panic attacks	108	67.9%
6. Existential struggle	104	65.4%
5. Feelings of depression	97	61.0%
7. Derealization	87	54.7%
10. Diminished self-esteem	79	49.7%
8. Depersonalization	59	37.1%
11. Sleep problems or nightmares	55	34.6%
9. Difficulty with thinking clearly	53	33.3%
3. Paranoia	34	21.4%
4. Visual hallucinations/ disturbance	33	20.8%

Severity of difficulties

Of the difficulty types, anxiety and panic attacks were rated as most severe (M = 2.24, SD = 0.64), followed by paranoia (M = 2.22, SD = 0.72) and cognitive confusion (M = 2.17, SD = 0.61). Depersonalization (M = 1.88, SD = 0.77), derealization (M = 1.87, SD = 0.81), and visual disturbances (M = 1.82, SD = 0.83) were rated as least severe. See Fig. 1 for all severity mean scores, with standard error shown too.

Severity ratings were compared using paired t-tests. For each difficulty this was done for the subsample of participants who reported both difficulties in each pair (Bonferroni-corrected p = 0.001). Significant differences emerged, with derealization and depersonalization consistently rated as less severe than other difficulties. Specifically, derealization was rated less severe than anxiety/panic attacks ($t(68) = 3.80$, $p < 0.001$, $d = 0.46$), social disconnection ($t(86) = 3.28$, $p < 0.001$, $d = 0.35$), and depression ($t(68) = 3.75$, $p < 0.001$, $d = 0.45$). Similarly, depersonalization was rated less severe than anxiety/panic attacks ($t(41) = 4.38$, $p < 0.001$, $d = 0.68$) and social disconnection ($t(53) = 4.35$, $p < 0.001$, $d = 0.60$).

These results partially support our hypothesis of varying severity levels across difficulty types, with some differences showing robust significance while others did not reach the corrected threshold.

Duration of difficulties

Duration also varied significantly across difficulty types. Existential struggle (M = 3.51, SD = 2.3) and diminished self-esteem (M = 3.72, SD = 2.37) emerged as the longest-

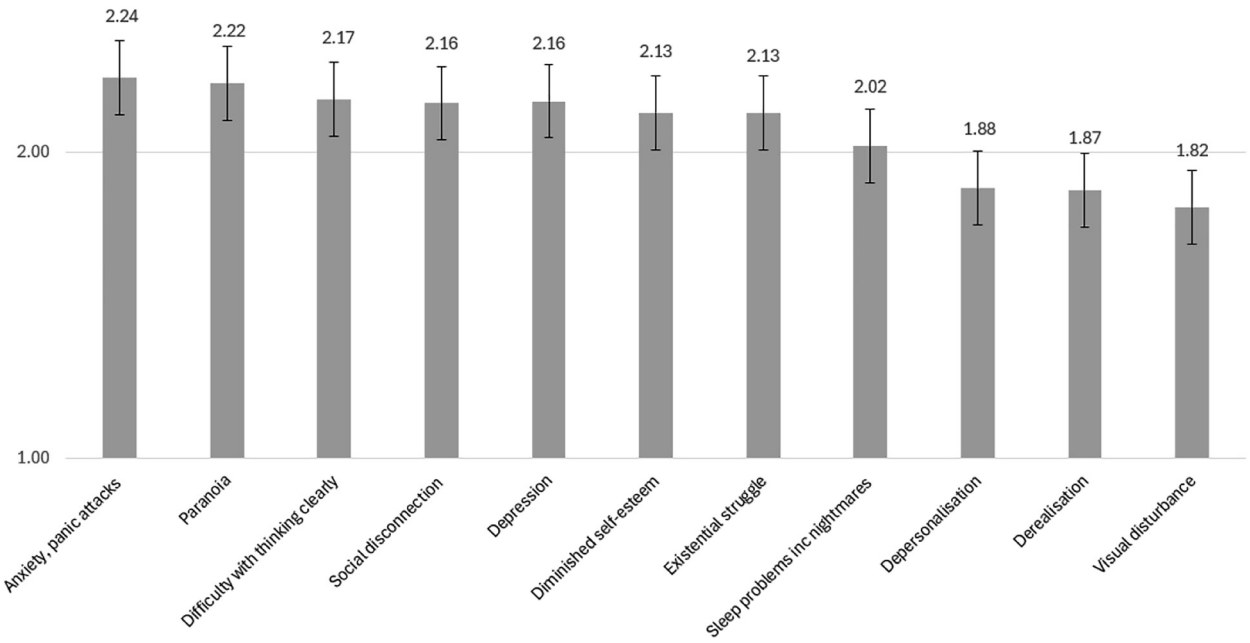

Fig. 1. Mean severity ratings for the 11 difficulty types, with standard error bars (N = 159)
Key to y axis: 1.00 = Not severe, 2.00 Moderately severe, 3.00 = Very severe

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lasting difficulties, while visual disturbance ($M = 2.39$, SD = 1.87) and derealisation ($M = 2.38$, SD = 2.09) had the shortest durations. See Fig. 2 for mean durations for all difficulty types, along with a key for how scores relate to reported time.

We analysed differences in duration using paired *t*-tests, including only participants who reported both difficulties in each comparison (Bonferroni-corrected $p = 0.001$). Significant differences emerged, with existential struggle and diminished self-esteem persisting longer than other difficulties.

Existential struggle lasted significantly longer than five other difficulties: social disconnection ($t(82) = 4.51$, $p < 0.001$, $d = 0.50$), anxiety and panic attacks ($t(78) = 3.21$, $p < 0.001$, $d = 0.36$), paranoia ($t(30) = 3.94$, $p < 0.001$, $d = 0.72$), depression ($t(75) = 3.39$, $p < 0.001$, $d = 0.39$), and derealization ($t(71) = 5.32$, $p < 0.001$, $d = 0.63$).

Similarly, diminished self-esteem had a longer duration than six other difficulties: social disconnection ($t(62) = 4.53$, $p < 0.001$, $d = 0.57$), paranoia ($t(25) = 3.76$, $p < 0.001$, $d = 0.75$), depression ($t(63) = 3.88$, $p < 0.001$, $d = 0.49$), derealization ($t(51) = 5.03$, $p < 0.001$, $d = 0.70$), depersonalization ($t(31) = 3.41$, $p < 0.001$, $d = 0.60$), and difficulty with thinking clearly ($t(37) = 3.27$, $p < 0.001$, $d = 0.53$).

These results partially support our hypothesis of varying durations across difficulty types, with existential and self-related challenges showing particular persistence compared to other post-psychedelic difficulties.

Coping strategies

We analysed the prevalence of coping strategies across 11 difficulty types (Table 2). Chi-square tests revealed significant differences in strategy distribution for 6 of 11 difficulties ($p < 0.004$, Bonferroni-corrected).

Self-education through reading and viewing was the most frequent strategy for six difficulties, including social disconnection (23.0%), visual disturbances (29.4%), existential struggle (28.3%), and derealization (28.7%), all of which showed significant strategy distributions ($\chi^2 = 40.7–80.5$, $p < 0.0004$). Therapy was predominant for depression (37.0%, $\chi^2 = 31.9$, $p < 0.0001$) and diminished self-esteem (42.7%, $\chi^2 = 118.54$, $p < 0.0001$). Peer/family support was primary for anxiety and panic attacks (30.1%, $\chi^2 = 42.6$, $p < 0.0001$).

The strongest preference for a single strategy was observed for diminished self-esteem, while existential struggle showed the most varied distribution of effective strategies. Notably, sleep problems, depersonalization, paranoia, and difficulty thinking clearly did not show significant preferences for particular strategies ($p > 0.004$), suggesting a more uniform distribution of coping approaches for these challenges.

These findings partially support our hypothesis of varying coping preferences across difficulty types. While some difficulties show clear preferences for specific strategies, particularly self-education reading/viewing and seeking therapy, others demonstrate a more balanced utilization of multiple coping methods. This suggests the potential benefit of both targeted and diverse approaches to managing post-psychedelic challenges.

DISCUSSION

This study provides new insights into the varieties of extended difficulties following psychedelic experiences, on their severity, duration, and associated coping strategies. Our findings contribute significantly to the growing body of knowledge on the potential risks and management of adverse effects in psychedelic use, with important implications for clinical practice, harm reduction strategies, and future research directions.

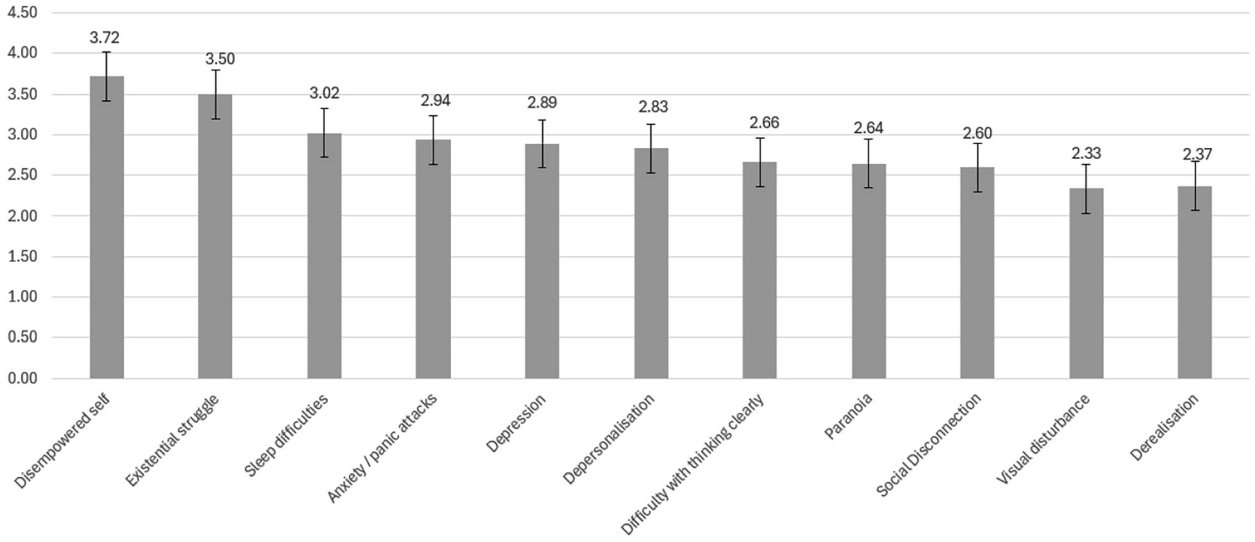

Fig. 2 Mean duration ratings for the 11 difficulty types, with standard error bars ($N = 159$)
Key to y axis: 1.00 = 0–6 months, 2.00 = 7–12 months, 3.00 = 13–18 months, 4.00 = 19–24 months

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Table 2. Percentage frequencies with which coping strategies were used for each the difficulty types (shown as % of individuals who reported the difficulty)

	Meditation/prayer	Self-education reading/viewing	Exercise	Therapy	Acceptance/Surrender	Tai chi or yoga	Journaling	Time in nature	Breathing techniques	Self-talk and affirmations	Support from peers and/or family	Chi Square coefficient and *p* value
Social disconnection	12.3	**23.0**	11.5	22.1	15.6	9.0	9.8	22.1	3.3	7.4	21.3	$\chi = 40.7, p < 0.0001$
Anxiety, panic attacks	16.8	15.9	13.3	20.4	12.4	7.1	2.7	17.7	11.5	8.8	**30.1**	$\chi = 42.6, p < 0.0001$
Paranoia	18.4	**28.9**	7.9	23.7	13.2	2.6	10.5	15.8	7.9	5.3	15.8	$\chi = 17.7, p = 0.06$
Visual disturbance	14.9	**29.4**	8.8	5.9	26.5	0.0	2.9	14.7	2.9	5.9	2.9	$\chi = 31.8, p = 0.0004$
Depression	12.0	11.0	21.0	**37.0**	17.0	4.0	4.0	14.0	3.0	7.0	31.0	$\chi = 31.9, p < 0.0001$
Existential struggle	23.6	**28.3**	9.4	26.4	23.6	1.9	7.5	17.0	0.9	1.9	16.0	$\chi = 80.5, p < 0.0001$
Derealization	9.2	**28.7**	11.5	16.1	24.1	6.9	8.0	17.2	3.4	9.2	24.1	$\chi = 41.4, p < 0.0001$
Depersonalization	11.9	**23.7**	18.6	15.3	11.9	11.9	10.2	20.3	5.1	11.9	16.9	$\chi = 11.44, p < 0.32$
Difficulty with thinking clearly	14.8	13.0	13.0	**27.8**	13.0	3.7	18.5	14.8	3.7	9.3	24.1	$\chi = 21.00, p < 0.02$
Diminished self-esteem	4.9	14.6	8.5	**42.7**	17.1	1.2	4.9	7.3	0.0	17.1	39.0	$\chi = 118.54, p < 0.0001$
Sleep problems inc. nightmares	14.0	5.3	**17.2**	10.5	**17.2**	7.0	15.8	10.5	12.3	7.0	10.5	$\chi = 8.82, p < 0.54$

Key to cell formatting: Grey shading = Most frequent three coping strategies for difficulty type.
Bold font = The most common helpful coping strategy for the difficulty type.

Severity and duration of difficulties

With regards to the perceived severity of the difficulty types, we found that anxiety had the highest mean severity score. This finding fits with the literature on anxiety that evidences how it affects eating (Hussenoeder et al., 2021), sleeping (Ramsaw et al., 2009), concentration (Hallion, Steinman, & Kusmierski, 2018), and can lead to immunosuppression too (Koh, 1998). The next two difficulties with the highest severity means were paranoia and difficulty with thinking clearly. These two difficulties overlap in terms of content, given that paranoid episodes include irrational thoughts of mistrust and conspiracy against oneself. The existing literature on paranoia shows that it interferes with people's ability to form close relationships, leading in turn to social isolation. Similarly, disorganised thinking as a symptom of mental illness can mean that others struggle to understand what a person says or writes, which in turn can lead to social avoidance and disruption of social relations (de Sousa, Sellwood, Griffiths, & Bentall, 2019).

We found that the difficulties with the lowest levels of severity are depersonalisation, derealisation and visual disturbance. While these issues are known from the literature to be a cause of dysfunction and distress when experienced to a high degree (Schlax et al., 2020), in the post-psychedelic context, they manifest across a range of severity levels that draw the mean down relative to difficulties that are more consistently rated in our data as highly severe.

In terms of our findings on duration of difficulty, the type with the longest mean duration was existential struggle, with a mean duration of around 17 months. This was significantly higher than a range of other difficulties. This quantitative evidence fits with results from Argyri et al.'s (2024) interview study, suggesting that a struggle to make sense of psychedelic insights can lead to confusion and persistent preoccupation with the experience that impact several aspects of individuals' lives for many months or even years. Other studies suggest that psychedelics incline individuals towards spiritual worldviews. For example, a study of 231 ayahuasca users found that 96% of participants described understanding spiritual matters better after their experience (Cassidy, Healy, Henje, & D'Andrea, 2024). The occurrence of existential difficulties may be a function of culture as well as individual coping capacities. For example, in Argyri et al.'s study (2024), existential struggle followed ontologically challenging psychedelic experiences in cases where participants described lacking internal resources or social support to help integrate their experience back into their everyday lives.

The second difficulty type that had a significantly high mean duration relative to other difficulties was diminished self-esteem. The mean duration was approximately 15 months. This unexpected finding points to the challenges in overcoming psychedelic-linked issues that disrupt the sense of self. It fits with a finding from Evans et al. (2023), which was that some participants described a sense of their self being *broken or damaged* in some way, an appraisal that may signify a breaking apart of the integrated embodied self-system of 'I' and 'me', which is central to mental health and normal waking consciousness (Behjati, Saeedi, Noorbala, Enjedani, & Meybodi, 2011).

Coping strategies and their effectiveness

Our findings reveal that different coping strategies are rated as most effective across difficulty types. Self-education

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reading/viewing emerged as the most common helpful strategy for 6 out of 11 difficulty types, including social disconnection, visual disturbances, existential struggle, and derealization. This prevalence of self-directed learning aligns with observations that many individuals who struggle with post-psychedelic difficulties embark on a personal and independent search for answers and sense-making, highlighting a significant gap in current post-psychedelic care practices (Robinson et al., 2024).

Professional therapy emerged as a primary coping strategy for depression and diminished self-esteem, aligning with established therapeutic approaches for these conditions in general mental health contexts. This suggests that the psychological mechanisms underlying these post-psychedelic challenges may share commonalities with their non-psychedelic counterparts, potentially allowing for the adaptation of existing therapeutic modalities to address psychedelic-specific concerns.

A particularly noteworthy finding is the effectiveness of peer and family support in managing anxiety and panic attacks following psychedelic experiences. This emphasizes the value of social connections and non-professional support networks in the integration process, aligning with previous research on the importance of community support in psychedelic integration (Argyri et al., 2024; Newson, Haslam, Haslam, Cruwys, & Roseman, 2024; Robinson et al., 2024).

Implications

Our findings have several important implications for clinical practice and policy surrounding psychedelic use. First, the high prevalence of social disconnection and existential struggle suggests that integration practices should place greater emphasis on social reintegration and therapeutic/other support with meaning-making. Second, the varying severity and duration of difficulties highlight the need for differentiated, long-term support strategies. Third, the effectiveness of self-education as a coping strategy underscores the importance of developing comprehensive, accessible educational resources for individuals engaging in psychedelic use. Finally, the role of peer and family support in managing certain difficulties suggests that integration practices should consider involving a broader support network, moving beyond the traditional one-on-one therapeutic model.

Limitations and future directions

While this study provides valuable insights, it has several limitations. The retrospective nature of the data collection may introduce recall bias, potentially affecting the accuracy of reported experiences. In addition, people might not know precisely what helped them recover or may be wrong in their retrospective assessment. The present lack of professional support for post-psychedelic difficulties might tend to bias responders towards self-care methods and away from professional support. Additionally, the sample, while diverse, may not be representative of all psychedelic users, particularly those from non-Western cultures or those using psychedelics in indigenous non-Western contexts.

Future research should aim to address these limitations through prospective, longitudinal studies tracking the evolution of post-psychedelic difficulties over time. Cross-cultural studies examining the prevalence and nature of these difficulties in diverse cultural contexts would also be valuable. Furthermore, investigating the neurobiological correlates of different types of post-psychedelic difficulties could provide insights into their underlying mechanisms and inform more targeted interventions, especially in the case of visual disturbances.

CONCLUSION

This study advances our understanding of the challenges individuals may face following psychedelic experiences and the strategies they employ to cope with these difficulties. By elucidating the varying prevalence, severity, duration, and management of different types of post-psychedelic difficulties, our findings contribute to the development of more nuanced, effective approaches to harm reduction and integration in both clinical and non-clinical psychedelic use.

The complex interplay between the types of difficulties experienced, their duration, and the effectiveness of various coping strategies highlights the need for a multifaceted approach to post-psychedelic care. This approach should incorporate professional therapeutic interventions, community-based support, and accessible educational resources, tailored to address the diverse range of challenges individuals may encounter.

As research in this field continues to evolve, these insights will help to shape responsible, evidence-based practices for the use of psychedelics in therapeutic and personal growth contexts. By acknowledging and addressing the potential for extended difficulties, while also recognizing the capacity for resilience and growth, we can work towards optimizing the potential benefits of psychedelic experiences while minimizing risks.

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REFERENCES

Argyri, E. K., Evans, J., Luke, D., Michael, P., Michelle, K., Rohani-Shukla, C., … Robinson, O. (2024). Navigating Groundlessness: An interview study on dealing with ontological shock and existential distress following psychedelic experiences. *SSRN* 4817368. https://doi.org/10.2139/ssrn.4817368.

Behjati, Z., Saeedi, Z., Noorbala, F., Enjedani, E., & Meybodi, F. A. (2011). Integrative self-knowledge and mental health. *Procedia-Social and Behavioral Sciences*, *30*, 705–708.

Bouso, J. C., Andión, Ó., Sarris, J. J., Scheidegger, M., Tófoli, L. F., Opaleye, E. S., … Perkins, D. (2022). Adverse effects of

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ayahuasca: Results from the global ayahuasca survey. *PLOS Global Public Health*, *2*(11), e0000438. https://doi.org/10.1371/journal.pgph.0000438.

Breeksema, J. J., & van Elk, M. (2021). Working with weirdness: A response to 'moving past mysticism in psychedelic science. *ACS Pharmacology & Translational Science*, *4*(4), 1471–1474. https://doi.org/10.1177/02698811221116926.

Bremler, R., Katati, N., Shergill, P., Erritzoe, D., & Carhart-Harris, R. (2023). Case analysis of long-term negative psychological responses to psychedelics. *Scientific Reports*, *13*, 15998. https://doi.org/10.1038/s41598-023-41145-X.

Carbonaro, T. M., Bradstreet, M. P., Barrett, F. S., MacLean, K. A., Jesse, R., Johnson, M. W., & Griffiths, R. R. (2016). Survey study of challenging experiences after ingesting psilocybin mushrooms: Acute and enduring positive and negative consequences. *Journal of Psychopharmacology*, *30*(12), 1268–1278. https://doi.org/10.1177/0269881116662634.

Cassidy, K., Healy, C., Henje, E., & D'Andrea, W. (2024). Childhood trauma, challenging experiences, and posttraumatic growth in ayahuasca use. *Drug Science, Policy and Law*, *10*. https://doi.org/10.1177/20503245241238316.

de Sousa, P., Sellwood, W., Griffiths, M., & Bentall, R. P. (2019). Disorganisation, thought disorder and socio-cognitive functioning in schizophrenia spectrum disorders. *The British Journal of Psychiatry*, *214*(2), 103–112. https://doi.org/10.1192/bjp.2018.160.

Dupuis, D. (2021). Psychedelics as tools for belief transmission. Set, setting, suggestibility, and persuasion in the ritual use of hallucinogens. *Frontiers in Psychology*, *12*, 730031. https://doi.org/10.3389/fpsyg.2021.730031.

Earleywine, M., Low, F., Lau, C., & De Leo, J. (2022). Integration in psychedelic-assisted treatments: Recurring themes in current providers' definitions, challenges, and concerns. *Journal of Humanistic Psychology*, *0*(0). https://doi.org/10.1177/00221678221085800.

Evans, J., Robinson, O. C., Argyri, E. K., Suseelan, S., Murphy-Beiner, A., McAlpine, R., … Prideaux, E. (2023). Extended difficulties following the use of psychedelic drugs: A mixed methods study. *Plos One*, *18*(10), e0293349. https://doi.org/10.1371/journal.pone.0293349.

Gorman, I. (2021). The transtheoretical approach of psychedelic harm reduction and integration. *Journal of Psychedelic Studies*, *5*(2), 83–92. https://doi.org/10.1556/2054.2021.00112.

Hallion, L. S., Steinman, S. A., & Kusmierski, S. N. (2018). Difficulty concentrating in generalized anxiety disorder: An evaluation of incremental utility and relationship to worry. *Journal of Anxiety Disorders*, *53*, 39–45. https://doi.org/10.1016/j.janxdis.2017.10.007.

Hussenoeder, F. S., Conrad, I., Engel, C., Zachariae, S., Zeynalova, S., Glaesmer, H., … Riedel-Heller, S. G. (2021). Analyzing the link between anxiety and eating behavior as a potential pathway to eating-related health outcomes. *Scientific Reports*, *11*(1), 14717. https://doi.org/10.1038/s41598-021-94279-1.

Koh, K. B. (1998). Emotion and immunity. *Journal of Psychosomatic Research*, *45*(2), 107–115. https://doi.org/10.1016/s0022-3999(97)00292-4.

Kopra, E. I., Ferris, J. A., Winstock, A. R., Kuypers, K. P., Young, A. H., & Rucker, J. J. (2023). Investigation of self-treatment with lysergic acid diethylamide and psilocybin mushrooms: Findings from the Global Drug Survey 2020. *Journal of Psychopharmacology*, *37*(7), 733–748. https://doi.org/10.1177/02698811231158245.

Krosnick, J. A., & Presser, S. (2010). Question and questionnaire design. In P. V. Marsden, & J. D. Wright (Eds.), *Handbook of survey research*. Bingley, England: Emerald Group Publishing.

Kvam T., Uthaug M. V., Andersen K. A. A., Refsum B. B., Tunstat, P. A., Stewart, L, … Grønnerød, C. (2023). Epidemiology of classic psychedelic substances: Results from a Norwegian internet convenience sample. *Frontiers in Psychiatry*, *14*. https://doi.org/10.3389/fpsyt.2023.1287196.

McAlpine, R. G., Blackburne, G., & Kamboj, S. K. (2024). Development and psychometric validation of a novel scale for measuring 'psychedelic preparedness'. *Scientific Reports*, *14*(1), 3280.

McAlpine, R. G., Sacchet, M. D., Simonsson, O., Khan, M., Krajnovic, K., Morometescu, L., & Kamboj, S. K. (2024). Development of a digital intervention for psychedelic preparation (DIPP). *Scientific Reports*, *14*(1), 4072.

McNamee, S., Devenot, N., & Buisson, M. (2023). Studying harms is key to improving psychedelic-assisted therapy—Participants call for changes to research landscape. *JAMA Psychiatry, 80*(5), 411–412. https://doi.org/10.1001/jamapsychiatry.2023.0099.

Newson, M., Haslam, S. A., Haslam, C., Cruwys, T., & Roseman, L. (2024). Social identity processes as a vehicle for therapeutic success in psychedelic treatment. *Nature Mental Health*, *2*, 1010–1017. https://doi.org/10.1038/s44220-024-00302-5.

Ramsawh, H. J., Stein, M. B., Belik, S.-L., Jacobi, F., & Sareen, J. (2009). Relationship of anxiety disorders, sleep quality, and functional impairment in a community sample. *Journal of Psychiatric Research*, *43*(10), 926–933. https://doi.org/10.1016/j.jpsychires.2009.01.009.

Robinson, O. C., Evans, J., Luke, D., McAlpine, R., Sahely, A., Fisher, A., … Prideaux, E. (2024). Coming back together: A qualitative survey study of coping and support strategies used by people to cope with extended difficulties after the use of psychedelic drugs. *Frontiers in Psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1369715.

Rucker, J. J., Marwood, L., Ajantaival, R.-L. J., Bird, C., Eriksson, H., Harrison, J., … Young, A. H. (2022). The effects of psilocybin on cognitive and emotional functions in healthy participants: Results from a phase 1, randomised, placebo-controlled trial involving simultaneous psilocybin administration and preparation. *Journal of Psychopharmacology*, *36*(1), 114–125. https://doi.org/10.1177/02698811211064720.

Schlax, J., Wiltink J., Beutel, M. E., Münzel, T., Pfeiffer, N., Wild, P., … Michal, M. (2020). Symptoms of depersonalization/derealization are independent risk factors for the development or persistence of psychological distress in the general population: Results from the Gutenberg health study. *Journal of Affective Disorders*, *273*, 41–47. https://doi.org/10.1016/j.jad.2020.04.018.

Simonsson, O., Hendricks, P. S., Chambers, R., Osika, W., & Goldberg, S. B. (2023). Prevalence and associations of challenging, difficult or distressing experiences using classic

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psychedelics. *Journal of Affective Disorders, 326*, 105–110. https://doi.org/10.1016/j.jad.2023.01.073.

Sjöstedt-Hughes, P. (2023). On the need for metaphysics in psychedelic therapy and research. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1128589.

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

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