

Adolescents' and Young Adults' Integration Processes for Extended Difficulties Following Challenging Psychedelic Experiences: A Qualitative Investigation

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Abstract

Background

As interest in psychedelics grows, concerns remain about ethical use and the documentation of adverse psychological effects. Use is increasing, yet long-term challenges - particularly among adolescents and young adults - are under-researched. This group is especially vulnerable, highlighting the need to understand how psychedelic-related challenges are experienced in naturalistic contexts.

Methods

This qualitative study used reflexive thematic analysis to explore the experiences of ten individuals aged 15–25 following challenging psychedelic episodes with extended difficulties lasting longer than a day. In-depth semi-structured interviews were conducted to examine themes around psychedelic integration, emerging adulthood, support-seeking strategies and available education about harm reduction strategies.

Results

Participants reported a range of emotional, cognitive and relational difficulties, as well as diverse strategies for making sense of their experiences. Key themes included the importance of preparation, supportive relationships and developmentally appropriate integration.

Conclusions

Findings underscore the need for age-specific harm reduction and integration services. Improved safety protocols and psychoeducation could help reduce long-term distress and support more ethical use of psychedelics in clinical and informal settings.

Background

Psychedelic experiences have been reported to elicit a range of profound and meaningful effects, from cultivating empathy to mystical experiences [1]. These effects have been widely investigated for their potential to alleviate mental health problems in psychedelic-assisted therapy (PAT) [2]. In addition to clinical research, cross-sectional and experimental research suggests that psychedelics are widely used outside of clinical contexts and may offer long-lasting benefits for treating depression and anxiety in non-clinical populations [3, 4].

Challenging experiences and longer-term adverse reactions to psychedelics occur in the minority of cases [5, 71]. They are reported to have distressing implications for those who experience them [6, 7, 8]. Researchers have found that neglecting factors such as ‘set’ (e.g., expectations, prior education and intentions) and ‘setting’ (e.g., social context and physical environment) may contribute to short-term or long-term harms for users [41]. However, several research studies also indicate that despite the challenges associated with psychedelic experiences, many individuals report that subsequent challenges are ultimately seen as beneficial to development and healing [8, 9].

Psychedelic-assisted therapy acknowledges the risk of adverse reactions and incorporates safety protocols to reduce and manage them. These protocols typically include building a strong therapeutic relationship, administering treatment in a safe environment, and providing weeks of interpersonal support after dosing [14]. A meta-analysis into safety of clinical trials revealed minimal adverse effects reported within studies that include these safety protocols [15]. However, Breekseema et al. [16] found that a robust and systematic assessment of adverse events in clinical trials is currently lacking, resulting in the underreporting of psychedelic-related harms. Additionally, Junqueira and colleagues [17] highlight the overemphasis on the benefits at the expense of the harms. Van Elk and Fried’s review [18] of psychedelic clinical trials highlights issues with transparency, safety controls, and the placebo effect, which they argue undermine the validity of the research.

Clinical trials represent only a small fraction of the contexts in which psychedelics are used, and there is a significant gap in research on harm reduction strategies for recreational users. A recent survey [19] found that 3% of 1,435 participants reported using psychedelics in clinical settings, with even fewer participating in clinical trials. This highlights the need for more research into non-clinical, naturalistic psychedelic use. Studies exploring the outcomes of naturalistic use, on the surface, provide convergent support for the data coming out of clinical trials [4]. However, recent studies have revealed that risk is often underestimated due to positive publication bias, and that adverse reactions are more frequently observed in naturalistic settings compared to clinical studies [20]. Therefore, the minimal risks reported in clinical research do not fully capture the challenges associated with psychedelics, which are more commonly experienced in non-clinical environments.

A growing body of literature is addressing the issue of the under-reporting of adverse reactions to psychedelics. Although small, studies are exploring the associated risks that have been reported as persisting beyond the immediate metabolism of the substance in a wide range of contexts [7, 8, 9, 11]. Notably, Evans et al. [8] conducted a survey of over 600 international participants, all of whom had experienced prolonged challenges, lasting longer than a day, following a psychedelic experience. Through a mixed-methods design analysing participants' personal narratives, they found that many challenges, ranging from social anxiety to existential confusion, have been deeply impactful in the functioning of their everyday lives. These studies are revealing rare but significant and long-lasting challenges that can arise after psychedelic experiences, which are sometimes overlooked in the literature of clinical and non-clinical populations.

Adolescence and young adulthood as a context for psychedelic use

Research indicates that young age is a significant predictor of adverse reactions to psychedelics [7, 21, 22]. Izmi et al. [10] found that the ego-dissolving quality of the psychedelic experience, which is linked to long-term psychological benefits, was more destabilising and less beneficial for adolescents compared to adults. Relatedly, Bouso et al.'s study [11] into the adverse reactions to the use of the psychedelic brew, ayahuasca, found that young age was a predictor of adverse emotional and cognitive effects. Further, sociological research has highlighted the impact of young people's psychedelic use on public health services, finding that adolescent and young adult psilocybin-related incidents have increased since 2019 [12].

A possible explanation for why being an adolescent or young adult is a risk factor for adverse outcomes in psychedelic usage is that the brain is still developing. Neuroscientific studies have identified the prefrontal cortex as one of the last areas to mature during this adolescence [23]. Such physiological vulnerability suggests that adolescents may be particularly sensitive to psychoactive substances. Despite these indications, ethical and legal barriers pose significant challenges to exploring the effects of psychedelics during adolescence. Nevertheless, some research has shown that the use of psychoactive substances such as cannabis in adolescence is linked to an increased risk of developing psychotic disorders [24].

Similarly, early adulthood is a developmental category that is marked by significant transformative stages. The theory of emerging adulthood is an attempt to describe and categorise the transitory nature of the lives of people aged 18–29 in Western society [25]. A period defined by instability in relationships, ambiguous residential status and identity exploration, emerging adulthood has generated research into the lived experiences of this period of people's lives [26]. The theory posits that changing socioeconomic contexts, catalysed by technological developments, have created a new demographic category that is historically distinctive in its population's sense of identity, belonging and psychosocial maturity. This period has been found to be characterised by a vast amount of change that is rewarding and empowering in ways that earlier generations have not encountered, while simultaneously presenting historically novel challenges [27]. Further, challenging situations unique to this demographic have been subject to inquiry and can sometimes constitute 'quarter-life crises' [28, 29].

Currently, the seeking of support for mental health challenges among adolescents and young adults is a public health concern. For example, in the UK in 2023, approximately 20% of children and young people aged 8 to 25 years had a mental disorder with higher rates among adolescents and young adults [30]. Research suggests that there are significant barriers for young people seeking support for the difficulties that they are facing, due to complex issues of stigma and adolescents being more likely to seek informal sources as a response to negative associations with professional services [31, 32]. This intent to seek help is compounded when adolescents perceive stigma to do so from family members [33].

Studies have identified several barriers that young adults face when seeking help for mental health challenges. These include a fear of seeking support for something considered normal and consequently opting to solve their issues on their own, as well as a difficulty knowing how to express concerns [34, 35]. Despite these challenges associated with methods of seeking support, research has found that existential concerns among young adults can be treated effectively, if approached with a non-judgemental attitude. Lundvall et al. [36] found that this process of existential questioning can result in outcomes of improved well-being if the healthcare professional's approach is open and centred around fostering a safe space of sharing.

Psychedelic integration

The term 'psychedelic integration' is frequently used to describe the various ways individuals reflect on, make sense of, and incorporate insights from their experiences into their lives [13, 37]. Although there is no consensus over its definition, a recent literature review highlighted the diverse methods and models that guide the practice and application of psychedelic integration [13]. One of the most broadly applicable definition has been put forward by Bathje et al. [13] who define psychedelic integration as a process of sense-making of psychedelic experiences through intentional effort and supportive practices that leads towards greater balance and wholeness. In a recent survey by Ali and colleagues [40], most trained psychedelic-assisted therapists indicated that they need a deeper understanding of the concept of integration to deliver treatment more effectively.

The ambiguous endpoint of psychedelic integration means it can be a short- or long-term process, posing both practical challenges and more prolonged issues, such as spiritual emergencies [43, 44, 45]. Research suggests that a range of strategies are helpful for people in different ways, but there is no standardised or prescribed method with which to engage in integration. For example, Earleywine et al. [37] found that the presence of a loving community can be helpful, with integration acting as a bridge between the content of the psychedelic experience and people's everyday lives. However, Robinson et al. [46] have recently underlined the significance of the individualised nature through which integration of these experiences can be successfully navigated.

The concept of integration may be more specific to Western culture. Ethnographic research suggests that in indigenous cultures with a long history of psychedelic use, integration is less emphasised because these experiences are often culturally integrated into daily life [47]. Additionally, Metzner [48] notes that Western societies have faced significant challenges in accepting psychedelic substances, often dismissing the rituals and cultural frameworks that help individuals understand and contextualise altered states of consciousness. Thus, therapeutic support during the integration process is considered essential in Western contexts to help individuals make sense of these experiences [49].

Considering the varying socio-cultural perspectives on integration, Gorman et al. [50] have proposed a transtheoretical framework to better understand the diverse nature of these experiences and guide related integration practices and interventions. The Psychedelic Harm Reduction and Integration (PHRI) model recognises the importance of a non-judgemental, non-directive professional approach to those experiencing psychedelic-related challenges. Through a process of non-judgemental guidance, it is suggested that there is huge potential to minimise the harms as well as maximise the benefit of all types of psychedelic experiences and integration challenges. This model addresses the limitations of traditional moral and disease models of addiction, which often focus on pathologising drug use and overlook potential benefits.

Aims of the current study

Based on the suggestions of the literature regarding the vulnerability of adolescents and young adults to adverse reactions to psychedelics, the current study sought to further explore the subjective experiences of this demographic through in-depth, semi-structured interviews. The primary research questions that guided the approach to understanding this phenomena were:

1. How do young adults navigate extended difficulties following a psychedelic experience?
2. What support is available to them which may help/hinder this process?
3. What does the term 'integration' mean to them in the context of their experiences?

Ultimately, this study aims to inform a general understanding of psychedelic-related challenges experienced by this age group and to improve the ways in which support can be provided. Further, it aims to examine the extended challenges faced by adolescents and young adults in order to inform the development of improved safety protocols in clinical trials, enhance harm reduction services, expand psychoeducation on psychedelics, and refine age-specific approaches to psychedelic integration.

Methods

Design

This study is part of the Challenging Psychedelic Experiences Project (CPEP), a mixed-methods, multi-country investigation into prolonged difficulties following psychedelic use. For the current study, a subset of participants from Evans et al's [8] survey who reported extended difficulties following a psychedelic experience, and were between the ages of 15–25 at the time of the experience, were interviewed. Their responses were analysed using a thematic analysis framework. This mode of inquiry was chosen due to the paucity of research into people's lived experiences of extended difficulties following psychedelic experiences.

Participants

Participants were recruited through a participant pool provided by The Challenging Psychedelic Experiences Project, who were initially recruited via various channels, including social media platforms, a newspaper advertisement, a newsletter focused on philosophy and psychology and email lists targeting students. There were three criteria for participation in the original open-ended survey: (a) be aged 18 or over, (b) be proficient or fluent in English, and (c) to have experienced difficulties after taking a psychedelic drug that negatively impacted functioning for more than a day afterwards [9]. The original study received 608 responses from predominantly white, university-educated people across a wide range of ages (see [8] for detailed breakdown of demographic information). Participants who indicated a willingness to participate in a follow-up interview were collated into a list for interview recruitment by the researchers (CPEP). Participants were subsequently contacted for participation in this research based on the age in which they completed the open-ended survey. The participant list includes two different age bands that were relevant for the current study, 18–24 and 25–34. In the 18–24 age band, all 18 participants were contacted, initially, and their participation for this study was requested. To gather more participants, 27 in the 25–34 age band, who had stated that the experience happened more than three years ago, were contacted. This method of recruitment was chosen to ensure that the participants' challenging psychedelic experience happened at an age that places them within an adolescent or young adult demographic (15–29 years).

A total of 45 prospective participants across both age groups were contacted regarding their willingness to be interviewed. All ten individuals who responded and volunteered their time to be interviewed participated in the study. Table one shows the demographic information of participants, providing details regarding the age of the individual at the time of the interview and the age of their psychedelic experience, as well as the substance(s) and context of the challenging psychedelic experience discussed during the interviews. Table one also includes the pseudonyms of each participation, chosen at random to ensure their anonymity.

Table one: demographic information of participants

Participant pseudonym	Gender	Nationality	Ethnicity	Age at experience	Age at interview	How long did difficulties last after the trip?	Setting of experience	Substance/s taken
Jude	Male	UK	White	16	21	Up to a year	Other	25I-NBOMe
Elena	Female	Belgian	White	21	28	Up to 6 months	With a friend, partner, or group of friends	Cannabis
Aaron	Male	USA	White	16	36	Up to 6 months	On my own	LSD
Rob	Male	USA	White	15	21	1–3 years	With a friend, partner, or group of friends	25I-NBOMe
Adam	Male	USA	Mixed race	18	23	Up to a year	On my own	LSD and cannabis
Ulli	Male	Canadian	White	19	35	1–3 years	On my own	psilocybin / Magic mushrooms
Jess	Other	UK	White	25	32	Up to a month	With a friend, partner, or group of friends	psilocybin / magic mushrooms and psilohuasca
Eric	Male	UK	White	18	23	More than 3 years	At a party	psilocybin / magic mushrooms and 2,5-dimethoxy-4-bromoamphetamine
Dana	Female	Croatian	White	20	24	Less than a week	With a friend, partner, or group of friends	psilocybin / magic mushrooms
Mila	Female	Maltese	White	23	28	Up to 6 months	group ceremony	iboga

Procedure and data collection

Ethical approval

was granted by University of Greenwich University Research Ethics Board (application ref: 21.5.7.20) for the initial participant recruitment and given approval for the qualitative interviews via the University of Greenwich School of Human Sciences Research Ethics Panel for Psychology and Counselling. Participants were recruited through purposive sampling via email. Those interested received a briefing document, and consent was obtained electronically before scheduling interviews. Interviews were then arranged through email at convenient times for the participants and researcher. One-to-one, semi-structured online interviews were conducted via Zoom between April and July 2024, lasting between 36 and 79 minutes. To conclude participation, participants were sent a debriefing form. The interview topic guide was developed based on current research and existing theory related to challenging psychedelic experiences. In addition, the guide was informed by the information participants had provided in their response to the open-ended survey, which was used to probe for elaboration. The following topics were covered in the interview guide: (1) context of the experience (age, substance, environment, expectations and intentions, life situation, prior education and knowledge of psychedelics, acute effects); (2) extended difficulties (duration, nature of difficulty, interactions with others); (3) what helped cope with difficulties (coping strategies, helpful aspects, unhelpful aspects); (4) thoughts on integration (relevance to experience); (5)

thoughts on how their age at the time of their psychedelic experience might have impacted their extended challenges and how they have coped; (6) what they envisage ideal support for others experience similar challenges; (7) if there have been any enduring positive effects from the experience. The interview guide can be found in supplementary materials (SM). The audio of the interviews was recorded and transcribed using Otter.ai, including multiple subsequent thorough reviews of each transcript against the audio to ensure the accuracy of the data.

Data analysis

Reflexive thematic analysis of the interviews was carried out using an inductive approach to theme development. The lead researcher (SB) adopted a reflexive thematic analysis approach due to its epistemological flexibility and capacity to explore the viewpoints of various research participants, identifying both similarities and differences while uncovering unexpected insights [51]. This afforded the researcher the opportunity to integrate multiple theoretical and conceptual frameworks within the process of theme development [52]. Further, an inductive approach was selected because it is widely recognised for its effectiveness in exploring under-researched areas of lived experience, making it the most suitable method for the study's exploratory aims and participant demographic [53]. Inductive theme development works with the data from the bottom-up, allowing the researcher to create a narrative structure from the plurality of perspectives and contexts discussed by participants [54].

The researcher followed the six stages of thematic analysis, outlined by Braun and Clarke: (1) familiarisation with the dataset; (2) creating initial codes; (3) identifying potential themes; (4) defining and reviewing themes; (5) defining and labelling themes; (6) writing the report [55]. Deep immersion in the data at each stage of the process and regular note-taking allowed for a reflexive process to shape theme development. The lead researcher (SB) conducted the analysis, and it was back checked and validated by DL and OR.

Results

Themes identified from the thematic analysis are outlined below and arranged in relation to their categorisation as superordinate themes, themes or subthemes. A full list of themes including frequencies, percentages and illustrative quotes is provided in SM.

Figure one: Superordinate themes and themes [Insert Fig. 1 here]

Superordinate theme 1: Navigating the experience

Psychedelic-related extended challenges that endured after the experience itself were found to be destabilising for participants in a variety of ways. Participants coped with these through a range of support seeking-strategies. This superordinate theme covers the types of extended challenges experienced by participants and the support-seeking strategies employed in a response to these challenges.

Theme 1: Extended challenges

The following subthemes encompass the varieties of these challenges shared in the interviews and go into detail with regards to how it affected them.

Eight participants shared experiences of *existential and ontological confusion*. These related to internally-focused existential questioning and a profound sense of ontological confusion was difficult to manage in their daily lives. Most participants had gone through “*something that you can't really put your head around*” (Rob) during their trip and the existentially-challenging nature of such experiences disrupted participants' daily functioning in a variety of ways. For some, this presented challenges in a practical sense, such as through a reduced capacity to engage with the demands of their educational responsibilities: “*So while I had improved my sensory ability, my ability to focus ... I was doing math, math major ... shot down aggressively*” (Adam).

For others, the existential questioning contributed to a feeling of groundlessness that was characterised by a fear for losing their sense of identity, which had the effect of directly challenging their ontological security: “*When I would experiment at that level, sense of self, it's like I didn't have a solid ground to depend on. There wasn't a safe space, there was a dangerous space*” (Ulli).

One participant spoke of the unrelenting persistence of such questioning, which had the effect of trapping them in a suicidal patterns of thinking that pervaded their decision-making processes for up to a year: *"I was basically wrestling with this idea constantly, that perhaps I had this path that ended in this suicidal premonition, or perhaps I had a choice"* (Eric).

Seven participants referred to *ruminative introspection*. They explained how they developed an increase in introspection in the time following their psychedelic trip, finding themselves confronting predominantly negative and introspective thought patterns. Some participants revealed that the experience propelled them into an uncomfortable awareness of their own thoughts, which was not present before the psychedelic trip. This feeling was illustrated by one participant, who shared:

"I was still very anxious and I remember just being very aware of my own thoughts, which I don't think before I really was aware of - that I could actually hear my own thoughts in my head. And I remember that also feeling very frightening, because, at the moment my inner dialogue was quite negative, you know, because I was feeling anxious and it was a lot of doom-thinking" (Elena)

Five participants referenced *social disconnection*. These related to social difficulties that they experienced following the psychedelic trip, which was specific to the ways in which they had difficulty relating to others, or to themselves, amidst groups of people. Reflecting on their extended challenging psychedelic experiences in terms of social difficulties, these participants described the experience of disconnection manifesting in two ways: exacerbating pre-existing social difficulties, or arising a newfound sense of disconnection among their peers.

For one participant, the experience exacerbated their perception of themselves as an outsider in the context of their peers: *"I had always been sort of an outsider, I'd always had issues socially. But this experience exacerbated all that"* (Aaron).

Similarly, Adam spoke of an extended sense of *"disconnection from people"* that they attribute to the extent to which they went *"poking around"* with psychedelics that led to them feeling as if he had *"lost my way a little bit"* in the way that he related to others.

Four participants reported experiencing *emotional difficulties*. For example, Jess felt a sense of shame and disappointment for not engaging with the experience in the way she would have liked:

I woke up the day after feeling just down, like a pit in the stomach. Like the world's worst cannonball depression feeling of, "I've fucked this up. I've wrecked the therapy. I can't trip again. I just feel like I've screwed it up" ... I had anxiety that I'd failed. I thought I'd disappointed myself somehow and done it wrong

Others reported feeling depressed, such as Elena: *"I remember feeling kind of depressed for a while"*.

Furthermore, four participants indicated that they had experienced *psychosis-like symptoms*, varying in length, intensity and the extent to which they received professional attention, in the period of time following their trip. In Mila's case, she was medically diagnosed upon an evaluation at a mental hospital: *"They took me to the hospital and basically they labelled it as drug-induced psychosis"*.

While Rob, although not receiving a diagnosis, stated that he experienced *"massive psychosis"* for eight months, which included *"experiencing a lot of delusions"*.

Four participants described *somatic difficulties*. These referred to the perceived impact of their psychedelic experience on their physical wellbeing and reported somatic challenges. For Adam, his somatic difficulties manifested in the extent to which his perceptual awareness was overwhelmed with stimuli, which had a distracting effect: *"I was just so distracted by the influx of very vibrant and alive emotions that had suddenly just been released by the dissolution caused by the psychedelic"*. Similarly, Rob experienced an overstimulating increased perceptual awareness that impeded his ability to react comfortably to incoming stimuli: *"So whether it be hallucinations, internal or external stimuli, my ability to perceive information increased extremely dramatically to an uncomfortable, very overstimulating effect"*.

Three participants reported to have *PTSD-like symptoms* as a result of their experience, which was described as a significant long-term challenge in all cases in which it was discussed. Notably, Mina was clear about the traumatising nature of her experience as she was asked what kind of support she would want to see available for others in similar situations: *"I wouldn't want them to go through the same experience as I did. Because it was very traumatic"*.

Theme 2: Support-seeking processes

Following a discussion of the types of extended challenges and the ways in which they were affected by them, participants shared the methods through which they sought support and what kinds of effective support they were looking for. Revealed within these discussions was a sense of participants' immediate environment and the receptiveness of their family and friends to what they were going through, available resources, and insights into where they needed to search in order to get the support that they needed.

Due to the majority of participants' ages and living situations, family members and close friends were often the first people participants reached out to when seeking support for their psychedelic-related challenges. The majority of participants encountered challenges in these familial and interpersonal support-seeking dynamics. As such, 7 participants reported that *family and friends* were *unapproachable*. Participants discussed what it was like to approach family members and close friends about their challenges and the different ways in which these approaches were met with either fearful caution, dismissal or hostility.

For some participants, simply the idea of approaching family members was not an option. This was particularly the case for participants who were adolescents when they were experiencing challenges. For example, Aaron shared that as a 16-year-old, he *"definitely couldn't talk to my parents about it"*. When asked how he thought they would have responded to him telling them, he responded:

"I mean, they would have just freaked out. They would have not known what to do. I probably would have gotten in a lot of trouble. Probably would have been grounded for, like, years. At the time, I didn't want to get in trouble, is why I didn't tell them" (Aaron)

Similarly, for another participant who was an adolescent at the time of their experience, approaching family members was not an option due to their anticipation of a response that they believed would address the legality of what they had done, rather than offering help for the nature of the challenges they were experiencing. They described how this would have made the situation worse: *"It would have been like, "Oh, he's done psychedelics. He's done drugs", and it would have been a whole thing that I couldn't be arsed dealing with"* (Jude).

Other participants described situations where attempts to share the details of their experience were met with dismissal. Elena described how telling her mum about what happened and what she was experiencing resulted in a response that was dismissive and neglected the severity of her challenges:

"She reacted in a way that wasn't very supportive, and she kind of judged me or blamed me for this experience ... because in her head, I think ... I brought it on myself, or maybe she was just scared and she was thinking like, "You just shouldn't have done that". So I couldn't really talk about this with my family" (Elena)

Participants discussed the challenges they encountered when putting words to what they were experiencing, a challenge that resulted in a *difficulty articulating their experience*. This made it difficult to talk to anyone directly using words, as well as indirectly through other forms of communication. According to the six interviewees who indicated this, the inability to articulate their experience resulted in the lack of sharing for months and in some cases, years.

Elena shared that her experience was beyond her comprehension to the extent that she was *"feeling kind of depressed and really had no concepts or words to put to my experience"*. Likewise, Ulli addressed the difficulty to communicate effectively about his experience, sharing that *"it's really hard to communicate about it. Even like three layers removed"*.

Half the participants sought *education through online resources and communities*. They expressed attempts to seek support through educating themselves and consequently finding relatable lived experiences via a breadth of online resources and communities.

For Rob, finding accurate information about the substance that he had taken and the extended challenges he was going through from reliable sources proved difficult. He reported the challenges associated with learning about the concept of ego death through a co-worker:

My co-worker had told me what it was. And I had this sudden realisation. It was what I experienced. I had a very sudden flashback and I had a panic attack at work. Very sudden life crush. Very, very sudden

Rob proceeded to discuss how kinship has been subsequently sought through the online forum, Reddit: *"I feel like I have a good understanding as I talk with a lot of people and I give a lot of advice and I take a lot of advice, too - on Reddit"*.

Similarly, other participants have found that online forums and communities have contributed to a broad and balanced understanding of many aspects of their psychedelic experiences, from the pharmacology of the substance, to the ways in which people have processed and lived with certain conditions.

Four participants reported that they *sought wisdom through others experienced with psychedelics*. Knowledge and wisdom was found through seeking support from people who had experience with non-ordinary states of consciousness, or who had a more comprehensive understanding of psychedelics than themselves.

According to Ulli, it was the relatability of others' experiences that was the only way of finding the right kind of support: *"those people that were going through their own version of it was the closest thing I had to support"*. Similarly, Elena outlined that sharing her experience with others who had gone through something similar contributed to a less judgemental environment: *"I felt less judged by people who knew [more about psychedelics]"*.

Eric suggested how it was perhaps the age in which he had his experience that prompted a search further afield for support from those experienced with altered states of consciousness, something that was not available to him in his immediate peer group: *"I was just trying to find a bit more wisdom outside my immediate peers"*.

Superordinate theme 2: What helped and what did not help to cope with the challenges

Theme 1: What helped

Participants were asked about what helped them to cope with these extended challenges. Several subthemes have been developed, including: the presence of friends, family and community; cognitive, intellectual and philosophical reframing; substances; creative expression and somatic practices.

The majority of participants described *the presence of caring friends, family and community* as one of the most helpful components of coping with challenges. While what constituted a caring presence varied between each participant, a commonality among participants' descriptions was the ability to listen non-directively, as illustrated by Elena: *"you know, it's just important that you're there for your friend ... and you just listen"*.

Additionally, a bond of trust between participants and their surrounding support network pervaded participants' explanation of what it means to have the caring presence of friends, family and community. Jess noted:

You just have to trust this person. I can't keep saying that enough. You have to be able to connect with everything that you went through that was probably the most difficult thing of your life, and be able to talk about that with the person. No, they're not gonna judge you for it. Not going to skip the goal, or go right to the end and to belittle it, or whatever

For Eric, the caring presence of family came in the form of a comforting and constant sense of normalcy that supported him indirectly while he was struggling with severe post-trip challenges, even though he did not feel comfortable talking to them about the experience directly:

Family was helpful. But that was more in terms of being a constant. I didn't ask them for direct help with this experience. But it was that constancy of having, you know, family to come home to and to just switch off with and watch TV and all that kind of normal stuff

Six participants recalled how a *cognitive, intellectual and philosophical reframing* of their experiences had a beneficial impact on how they coped with challenges. Jess recalled how she managed to deconstruct the challenging psychedelic experience logically, which had the effect of reframing the experience to open herself up how to resolve what was challenging about it: *"Take it apart literally, logically, understand how that occurred, what happened and why. Throw logic at the problem. That's what I did"*.

Similarly reframing with the purpose of rationally approaching the experience, Eric discussed how a psychophysiological frame was helpful insofar as it provided a logical basis for understanding how the drug was continuing to affect him:

In terms of the psychology, it was really just figuring out how psychedelics affected the brain more. So just learning more about what they were actually doing ... the way they interfered with your neural networks, and what could happen... that just helped me because I was like, "Well, you know, if I am crazy, people have been writing books about it for a long time. So I'm sure I'll find a way out of it"

In Aaron's case, unintentionally coming across a philosophical frame in the form of Buddhism afforded him the ability to comprehend what had happened to him and validate his experience: *"a lot of the Buddhist philosophy talks about that kind of thing. I remember just feeling very validated when I finally kind of stumbled upon it"*.

Half the participants discussed how *substances* helped them cope with their extended psychedelic challenges. Although most participants also noted significant caveats in using substances to help them cope, substances had variable, but beneficial effects on a range of the symptoms they were experiencing.

For Aaron, alcohol was a method through which to escape from the confrontation of psychological-related difficulties, such as confronting uncomfortable emotions. Whilst he notes that it resulted in a long-term dependence on alcohol, he noted: *"Well, I mean, drinking just kind of numbs all of your anxieties and emotions. That was always a safe thing for me to do, you know. And just buried the problem, versus confronting it"*.

Contrastingly, Rob found that marijuana acted, ultimately helpfully, as a form of DIY confrontational therapy, stating:

"Smoking weed would increase my hallucinations and generally not great for my psyche, because I still had HPPD and schizophrenia. But the good thing out of it is that, yeah, I became less scared of my visuals, which was the problem. The visuals were very frightening and that was it. They helped that out because they triggered them".

Similarly, Jess discovered that marijuana was helpful in creating a headspace and environment through which to confront the challenging aspects of her experience:

But what really helped with the integration of the difficult trip, was just doing it again, lots and lots of marijuana, working out what I'd experienced and painting it in a new light I guess, because at the time it felt like my own death

Mila spoke of antipsychotic medication as being a helpful substance in combating the sleep difficulties she was experiencing and return her to a state of normality:

"They actually did help. It was mostly for sleep ... I was having a lot struggle sleeping and I think I spent about three days without any sleep. And that was what triggered this psychosis. So with the anti-psychotics, they actually made me feel normal. Kind of in my normal state of consciousness. So they did help, yeah".

Three participants discussed how allowing themselves to engage deeply in practices of *creative expression* generated a valuable sense of relaxation, belonging and identity exploration that was helpful in coping with the challenges presented by the psychedelic experience.

Mila and Aaron expressed how dancing to music was a method through which to regain a sense of normality and connect to their bodies: *"I really liked listening to music and really, really dancing in my room... It really helped me to integrate back into my normal routine, my normal life"*. (Mila)

"So music, I think, was a way for me to explore and to express some of the experiences that I had, some of the questioning. And it was also a way for me to establish an identity for myself, because there wasn't really a whole lot of social structure for what I was going through". (Aaron)

Three participants spoke of specific *somatic practices* as helpful in a variety of ways. For two, a structured approach to meditation and breathing techniques helped them to regulate their emotions and nervous system.

For Mila, the physical act of making jewellery was therapeutic as it allowed her to focus her mind on an external process that had a grounding effect: *"I was doing jewellery at the time. Handmade jewellery. And it actually really kind of focused me, and I found it really*

therapeutic to make something with my hands”.

Theme 2: What did not help

Participants shared their perspectives on what did not help them cope with post-trip difficulties. Two subthemes emerged, including: lack of access to balanced educational resources; and stifling clinical relationships and environments.

Seven participants found that they encountered unhelpful experiences when attempting to access educational social resources, which in many cases led to an increased confusion and decreased clarity about what they were experiencing. *Lack of access to balanced educational resources* for participants came in the form of unbalanced official narratives surrounding psychedelics (either too positive or too negative), understudied and underrepresented coverage of psychedelic-related harms, and exposure to unreliable sources.

Jess highlighted the lack of balanced public messaging, represented in official narratives that are skewed towards the ultra-negative:

There's no official real information about it. Everything online that's in an 'official', quote, context is painting psychedelics in a bad light. If you Google psilocybin, the first dozen results are always stuff about an NHS website telling you it's going to be something bad or like the experience is intense. They don't show an even picture of what the experience is and that processing emotion isn't always pleasant, and that it's worth doing

Conversely, but equally unhelpful, Eric encountered the ultra-positive reporting present online, which neglects balanced reporting on psychedelic-related harms: *“Googling psychedelics and PTSD and only receiving articles about why psychedelics are great for PTSD is so frustrating, because there's just no resources out there for somebody who has PTSD as a result of psychedelics” (Eric)*

Aaron mentioned how unofficial online resources, although scattered with useful information, often also contains unscientific information that was confusing and misleading for him at the age of the experience:

Erowid, I guess, has some useful information, but all just sort of anecdotal and just a lot of, like, bullshit, honestly. A lot of urban myths, and, you know, "Oh, LSD stays in your system". That's the kind of stuff that I was reading through. It was like, "Oh no, when you do LSD it stays in your spine" ... And those were the things I was concerned about at the time

Four interviewees spoke about the complex nature of clinical relationships and environments, discussing instances where they found themselves in *stifling clinical relationships and environments*. Mila, who described how the isolation of a mental institution was overall beneficial to her as she experienced an extended period of diagnosed psychosis after her psychedelic experience, was also clear about the uncomfortable environment in which she was initially brought into:

When I was in the mental hospital, I was tripping. Under the effects. So first they locked me up in a room and I thought I was in prison. Basically, it was like a white room with a locked door and just this window where they give you drinks and food and there was the toilet which did not even flush. I really felt like I was in prison and not in a hospital

She also discussed the obligation of psychiatric support that was subsequently suggested to her by her parents, and how the clinical nature of this relationship was unhelpful: *“I really hated sharing my emotions and my life with another person. With a stranger, basically”.*

Superordinate theme 3: Reflections on ideal support, integration, timing and positive effects

Theme 1: Ideal support

Participants were asked about the kind of support that they envision for others experiencing similar psychedelic-related challenges. Two subthemes were developed: Access to balanced resources; and the presence of caring faces and spaces.

The first subtheme refers to participants' suggestions for increased *access to balanced resources*, many of which were limited to them when they felt that they were needed. Seven participants discussed ideal support for people as taking the form of access to resources that they believed could be beneficial for harm reduction, preparation and general educational purposes. For some,

widespread access to general mental health resources such as therapy were considered beneficial, such as in the way Rob suggests: *"If there could be free access to actual therapists - as, in America, you've got to pay for doctor visits - that would be cool"*.

Relatedly, Eric pointed out the fact that medically trained healthcare professionals should be more aware of the harms of psychedelics so that those experiencing them can be more accurately responded to and cared for: *"I guess bad trips would be more medically documented by professionals"*.

For others, more streamlined access to psychedelic-specific resources for both the preparation and post-trip phase was essential. As Aaron notes: *"Having more websites, having more literature. Literature that can help you prepare yourself better, so that you don't get into these situations"*.

Likewise, Rob spoke to the need for greater streamlining and access to educational materials, specifically for younger people who are within the education system: *"I wish people would get some more information from schools, and therapists and counsellors"*.

A few participants noted the need for greater emphasis on harm reduction-oriented resources, offering suggestions on what would have been helpful for them if they were available. For example, Aaron discussed the concept of anonymous crisis support groups, that would act as front-line support for people during psychedelic-related crises:

I think having something like an anonymous support line, or, just a support group, that's sort of anonymous. Kind of like AA or something, but just sort of like a crisis group where you can go. That probably would have been immensely helpful

The second subtheme is *the presence of caring faces and spaces*. This covers five participants' thoughts on what it means to hold space for people who are experiencing extended psychedelic-related challenges, in professional or unprofessional capacities. Rob envisioned this kind of support coming in the form of calm reassurance that he is going to get through his challenges: *"maybe if somebody had explained it to me gently and assured me that I had room for getting better, then it would have really helped me"*.

For others, this presence means the creation of sharing spaces that are built on foundations of non-judgement and trust. Jess spoke to this kind of interpersonal quality, by pointing out *"you need to find someone to get on with, you can connect with, that you absolutely trust"*.

Ulli discussed how this form of caring, non-judgemental presence may be found in the extent to which others can relate to what you might be going through, although he acknowledged the rarity of such presence:

If anyone is in a position to provide hope and joy and love that has been through something similar - all of those things I was lucky enough to have on tap by people around me - but because they hadn't experienced it, there's this barrier

Theme 2: What it means to have an experience at that age

Participants were asked about how they reflect on the role of their age at the time of their challenging psychedelic experiences and what it means to go through something like this as an adolescent or young adult.

Eight participants reported that with hindsight, their age at the time of their psychedelic experience meant that they were *vulnerable to harm through youthful naivety*. Consequently, they felt more at risk of experiencing psychedelic-related harms. For some, this referred to an explicit awareness of their emotional fragility at that specific time in their lives: *"I think that age, for young people, it's already quite fragile, in many ways because you're still getting to know yourself"*. (Elena)

For others, this vulnerability stemmed from a lack of experience and heightened excitement for what they thought the experience was going to be. As a consequence, they reflected on how at the time they did not respect the substance and the set and setting required to minimise the harms. Aaron reflected that as a 16 year-old:

"I had no context, I had no experience. I didn't know how to handle the situation. It was the first time I had had such an experience, and it was also a lot. I mean, four hits of LSD is a lot, for anyone, and especially for someone who's never really done it that much. I mean, even if I did that much today, it would be pretty, pretty heavy".

Similarly, Eric discussed how the setting in which he had the challenging psychedelic experience was not suitable: *"Because I was young, I didn't really think that a party might not be the best place to dabble with it"*.

Half of the participants felt that despite the challenges they went through, they believe that the *timing of experience was beneficial*. This conclusion was reached when considering the trip in the context of their lives and they are grateful to have gone through something like this at a young age.

For Eric, he believed that his young age increased other people's sympathies for his situation. He pointed out that it is perhaps more socially acceptable at this age, as he found other people to be more accepting of, and receptive to, the notion of adolescence and young adulthood as a suitable time in which to encounter these kinds of experiences:

"People accepted that I was going through a hard time because I was young. So friends and family were like, well, you know, "People do go through it at that age". So even if they didn't know the extent of what I was going through, there was definitely some sympathy in that regard".

For Ulli, his experience coincided with leaving formal educational structures and immersing into more independent thinking, leading him to report that *"it was the perfect age to have gone through that"*.

Jude echoed this sentiment by asserting how despite his challenges, experiencing this as an adolescent allowed him to be exposed to different ways of relating to others that has resulted in a long-term beneficial outcome: *"I've been more open-minded and accepting for longer, which I don't see as a bad thing"*.

Two participants responded to this question by stating they viewed their *young age irrelevant* in the context of their psychedelic experience.

Theme 3: Views on integration

Interviewees were asked about their thoughts on the concept of integration and whether or not it has any relevance in the context of their experiences. All ten participants reported a personal relevance of the concept and elaborated on their personal reflections. Four subthemes were developed to capture the various elements of participants' integration processes: structural; relational; practical; and temporal.

Seven participants acknowledged a *temporal* aspect of integration that varied subjectively in duration. For Jess, integration was a quick process in which a clearly defined resolution was envisaged and subsequently achieved:

I realised within about three or four seconds [that] I did it wrong. I should have gone with it, lay down and close my eyes and let go ... I've got to try it from a different angle. And then that would just stay as the fact until I dealt with it

For other participants who mentioned this temporal aspect, integration was discussed as a process that means something different to them the further away they are from the experience itself. For example, Dana continues to interpret what she went through: *"I'm still making sense of it"*.

Elena pointed out that as time moves on, she finds herself integrating her experience in different ways: *"I think right now I'm integrating on more subtle levels"*.

In Aaron's case, the older he gets, the more he understands the nuances of what it means to reflect on his experience and to draw meaning from what he has been through: *"I was going totally blind, you know, at that time. But today, integration, that's a term that I'm very familiar with and that I use all the time. At this point I have done a pretty good job integrating"*.

Six participants referred to integration as a *structural* process. For them, integration was formulating a tangible structure through which to comprehend their experiences, affording them the ability to create a foundation through which to reflect upon it meaningfully.

For some interviewees, this structural element of integration has been achieved through the accurate application of language, aided through metaphor. Eric framed his conceptual understanding of integration, as well his creating meaning of his challenging experiences, through the following metaphorical conception:

"The way I think of it is it remains stretched, but it's what I fill that space up with. And if I fill it up with good things, then hopefully I'll live a life with a very broad spectrum of feelings and experiences. And that's kind of what I hope to achieve with integrating the difficult"

experiences”.

Likewise, Ulli makes sense of his challenging experience through metaphorical interpretation:

“I've come to call the accompanying sensation 'the red flag fear'. I've spoken with others who have had similar encounters. To put it so fucking neatly with a little bow on it, it is ego death from the point of view of the ego, which is like quite fucking tidy and yet it's a door with no hint of what's behind it, but it's suitable in this case”.

Five participants discussed integration in terms of its *relational* elements. In this way, they could transform how they relate back to their experience, from predominantly negative associations to ultimately positive ones. Eric reported how he was able to relate to his own experience more positively once he found a suitable method of relating to it, which came in the form of helping others through their challenging experiences:

“Recently I visited a friend who is very mentally unwell... it was difficult because he wasn't quite ready to hear that psychedelics were perhaps the root of this problem. The one residing theme over the whole day I spent with him was his gratefulness of me being there and sharing my experiences. He was very grateful about that. Funnily ... it kind of helps me to integrate my experiences, because it's also helping him to integrate his”.

Mila found that relating her experiences to different aspects of her life allowed her to transform negative associations into positive ones: *“I think that is part of integration, because you are carrying experience with you throughout your life, and that is affecting you in a positive way”.*

Seven participants discussed their views of integration in relation to the *practical* implications of readjusting to ‘normal’ society during their post-trip experiences. For Adam, the practicalities of this process have contributed positively in his ability to balance the normality of life with the existential element of his psychedelic experiences: *“So that ability of like, switching between the normal way of thinking but keeping it in the back of your head, that 'nothing's really that certain or known' is skilful and is helpful”.*

Relatedly, Aaron acknowledged this balance of ordinary and non-ordinary perceptions of reality as a practical method of skilful adaption, using the example of meditation retreats as a point of comparison:

It's like you go on these retreats, you have these incredible, crazy experiences, and then the retreat's over, and you have to go back home to your wife and family and go back to your job. So to me, that's what integration is

For others, the practical aspect of integration was a case of returning to a sense of normality:

“I was just trying to get back to what I felt like was normal. And that's how I integrated really, I just tried to get back into a headspace where I felt normal again”. (Jude)

Theme 4: Positive effects

Participants reported various positive outcomes when reflecting upon their challenging psychedelic experiences. Two themes were identified: externally relational improvements and internally relational improvements.

Eight participants reported that their experiences led to *external relational improvements* to their lives. This represented a long-term positive outcome of an improvement in the way they relate externally: to their worldview, other people and their environment.

For Adam, the existential changes he went through opened up new and improved ways of interacting with the world:

“So that paradigm shift - although at some level, just conceptual - was pretty revolutionary, and was pretty much just given to me by psychedelics and it just invited an insane curiosity for ideas in general. And then it just led to meditation, spirituality and stuff”.

Relatedly, several participants indicated that their psychedelic experience ignited a curiosity in philosophies that aligned with what they had experienced under the effects of psychedelics. Jude's description captures the extent to which this philosophical curiosity was sparked by the experience:

“It made me a lot more interested in the mind, I think. I was more interested in philosophy and stuff like that and like Eastern philosophy and meditation and stuff after that, I think, because of that experience. That was one thing that's definitely like shifted”.

Similarly, Ulli noticed that his psychedelic experience afforded him a fresh and liberated outlook on the agency he has with his life choices: *"I think part of the nature of it is realising the freedom you have to co-create your own life and because of the freedom that was afforded to me in those psychedelic experiences"*.

Aaron reported an increased amount of creativity as a result of his psychedelic experiences: *"I think doing psychedelics has helped me open up to not getting stuck into these normal, boring patterns. At least in my songwriting"*.

For Dana, her psychedelic experience contributed to a deeper understanding of a family member's mental health condition, something which she believed enhanced her ability to empathise: *"Before I could have been sympathetic, but I didn't fully understand it. Well here now I can say that I think I understand a little bit better"*.

Five participants reported that there were *internal relational improvements*. These kinds of improvements were in the way in which they related to themselves internally: understanding their emotions, motivations and internal processes more clearly.

For Mila, this improvement was felt in how she built up resilience: *"it definitely made me stronger, I think, as a person"*.

Similarly, Adam reported an increased ability to engage with his mind and body in a mindful way: *"the ability to discern the body mindfully improved. And mindfulness in general improved significantly"*.

Discussion

Previous studies have established young people's vulnerability to adverse reactions to psychedelics as well as psychedelics' potential to present major challenges to daily functioning for up to years following the trip [8, 11]. This study is the first to explore the lived experiences of adolescents and young adults, their extended challenges following a psychedelic experience and what it is like to go through it. For most participants, navigating extended challenges following a psychedelic experience was negatively compounded by the extra-pharmacological factors of set, setting and matrix. Findings shed light on Betty Eisner's concept of the 'matrix', which addresses the greater environment to which the individual returns after the trip [42]. Participants' challenges were either negatively or positively affected by elements of their subjective matrixes, such as family dynamics, the presence of caring support networks and access to resources that played an important role in how successfully they could engage with their post-trip integration processes.

The therapeutic effects of psychedelics have recently been hypothesised to arise from an acute entropy-enhancing effect of the substance, a process which has been shown to disrupt individuals' reliance on their established beliefs [56]. This disruption can facilitate a realignment of cognitive frameworks, allowing for the re-evaluation of once firmly established, rigid thought patterns. However, when individuals lack sufficient psychological or social support, this heightened uncertainty has been shown to lead to distress, especially among younger people [10]. This can manifest as confusion and difficulty in adjusting to the destabilisation of their established worldviews. Participants' particularly difficult post-trip experiences highlight the practical impact of insufficient psychological and social support on the processes through which they make sense of these experiences. Conversely, when participants discussed having positive support, it was highlighted as a key factor in how they successfully navigated their challenges and provided space to be able to heal and grow.

Relatedly, the most helpful aspect of dealing with these challenges was the relational support from caring friends, family, and the community. Participants found that the most effective interpersonal support came in the form of being able to share their experiences openly in a non-judgmental environment. Participants discovered that while it was often helpful to share their experiences with others who had used psychedelics, the most valuable aspect was the feeling of being truly understood and seen. This finding is consistent with other studies that have found understanding communities to be helpful during people's post-psychedelic integration processes [6, 46, 57, 58]. Another helpful coping strategy was developed through reframing their experiences in a variety of ways, through intellectual, cognitive and philosophical means. This finding is especially relevant for addressing existential confusion, the most commonly reported extended challenge in the current study. This insight adds to research on treating psychedelic-induced existential confusion by supporting studies that advocate offering diverse metaphysical frameworks to help individuals navigate ontological challenges from multiple philosophical and cultural perspectives [6, 59].

Participants described a range of difficulties when seeking support for the challenges they experienced following their psychedelic use. A key issue was the inability to articulate these experiences to family and peers, often due to their reported ineffable nature. As

a result, attempts to reach out frequently led to unhelpful or even harmful responses. This aligns with broader findings on how young people struggle to communicate mental health issues to those around them [31]. In particular, participants' accounts of dismissive or hostile reactions from family members support Meredith et al.'s observation that adolescents often feel uncertain or apprehensive about approaching their families when dealing with psychological distress [33]. These challenges appeared to be further compounded by the stigma surrounding psychedelics and their illegal status, which may contribute to the reluctance to seek support or disclose substance use [60]. These concerns have been raised in a recent review regarding the extent to which families and caregivers can serve as a positive influence in the integration process for adolescents [61]. The findings from this study suggest that individuals navigating prolonged difficulties after a psychedelic experience tend to benefit more from a non-judgmental, non-directive response from those around them. This is an approach that stands in contrast to traditional moral or disease models of drug use, which have shaped prevailing attitudes and interventions [38, 50].

Participants frequently described their psychedelic experiences as occurring at an optimal time in their lives, despite the challenges they have faced. This perspective aligns with recent studies that highlight the complex balance of risks and benefits associated with psychedelic use. It also opens avenues for further research into how other cultures incorporate psychedelics during similar developmental stages. For example, ethnographic research from the 1970s found that ayahuasca was used in initiation ceremonies among adolescent boys in the northwest Amazon to cultivate bravery [62]. Similarly, the Shoshonean (Uto-Aztecan) peoples of California historically used the psychedelic datura in ceremonies where young boys were initiated into adulthood, guided by elders [63]. While the relationship between this age group and psychedelics remains underexplored in modern literature, it often occurs in recreational settings like music festivals and concerts [64, 65]. These cross-cultural examples suggest that psychedelics could be beneficial during developmental stages if supported by both experienced guides, well-structured environments and the presence of psychedelic-specific welfare services such as PsyCare UK.

In addition to the challenges they faced, participants also discussed the positive outcomes of their experiences. Consistent with previous research on adverse reactions to psychedelics, most participants reported significant and lasting benefits [8, 9]. However, it is worth noting that this may be at least partially as a result of sampling bias and self-selection, even though the original survey sought out those who had suffered extended difficulties. Nevertheless, they described improvements in their relationships, both internally with themselves and externally with others. Many expressed gratitude for undergoing these experiences at pivotal times in their lives, noting that it provided them with a deeper sense of empathy and understanding of others. Participants also reported that successfully integrating these experiences enhanced their creative, philosophical, and empathetic perspectives. These findings contribute to general understanding of integration as complex processes of minimising harm and maximising benefit [39]. They also align with research on developmental crises during early adulthood, highlighting the transformative role of crises during periods of transition and instability [66]. More broadly, these findings support the idea that many individuals can experience positive change through overcoming challenging life experiences [67]. However, it is important to acknowledge that not all participants reported lasting positive effects from their challenging experiences and some (30% of participants) are still navigating their challenges years after the experience.

The finding that participants reported using substances to support their recovery is noteworthy, as it contrasts with a recent qualitative study examining coping mechanisms among those experiencing ontological shock after a challenging psychedelic experience [6]. This suggests that traditional abstinence-based approaches may not be effective for everyone, highlighting the potential role that certain substances, when intentionally used, can play in aiding the integration process. These insights could contribute to developing a novel, harm reduction-oriented framework for understanding people's relationships with psychedelics, as proposed by Gorman et al. in their transtheoretical PHRI model [50]. This model, designed as an alternative to the prevailing abstinence-based approach, acknowledges that psychedelics may be used in diverse, non-harmful ways and could have medicinal, recreational, or spiritual value in recovery journeys.

Limitations and future directions

As is the case with all self-reported retrospective studies, these results rely on the accurate memory of the participants. Memory recall, particularly of emotionally intense or complex events such as the ones detailed in this study, can be unreliable, with participants potentially omitting or distorting details over time. Given the subjective nature of psychedelic experiences and ongoing integration processes of participants, this recall bias may be further exacerbated in the context of this study.

Another key limitation of this study is that it does not account for the pharmacological differences between the various substances participants reported using, which could influence the types of challenges faced and the intensity of prolonged effects. For example, in the current study, the substance 25I-NBOMe accounted for 20% of participants' experiences, despite it being a rare substance, but one that is associated with severe adverse effects [68]. Further, since different psychedelic substances act through different neural mechanisms, interpretations should be cautious when generalising about the effects of psychedelics as a broad category of pharmacologically distinct substances [69]. Therefore, caution is recommended when interpreting these results in the broader psychedelic literature. Future studies could explore the extended adverse effects experienced after taking specific substances and compare their effects. This may lead to a more accurate and nuanced understanding of the safety profile and what constitutes the most effective integration for each substance.

Another limitation of this study aligns with a broader critique of psychedelic research, which posits that the field has primarily focused on English-speaking, predominantly white, and affluent participants [70]. While the concept of integration is considered useful in Western cultures, the literature suggests there is much to learn from perspectives outside this demographic. Conducting studies in non-English-speaking countries could expand the literature by incorporating different cultural and ontological frameworks that some authors have suggested could aid specific existential psychedelic challenges [6].

Implications

The findings in this study represent an important step toward developing evidence-based integration models that extend beyond clinical settings. As the non-clinical use of psychedelics becomes increasingly common among young adults, gaining insight into their experiences is essential for informing harm reduction strategies and addressing the myriad challenges that arise in unregulated contexts [38]. Although the current data may not be sufficient to construct a comprehensive model in of itself, participants identified several key components of integration (such as temporal, structural, relational, and practical dimensions) that could contribute to integration-based educational guidelines and therapeutic interventions. Participants' perspectives on what forms of support have been beneficial and unhelpful offer valuable input for designing educational resources and community-based support structures. These findings are especially relevant given the unique barriers this age group faces in seeking support, such as lack of prior context, complicated family dynamics and a lack of individualised guidance.

Consequently, the findings of this study underscore the importance of education around psychedelic substances, particularly in ensuring that young people have access to balanced, reliable resources. Such resources can support safer preparation for psychedelic experiences and help individuals identify appropriate information, support groups, or therapeutic options to assist them in navigating their experiences afterward. Therefore, the practical strategies described by participants (including safe spaces for sharing, access to therapeutic support, reframing practices, and creative or somatic methods of processing) may contribute to the development of more holistic and accessible initiatives that could effectively reduce harms related to psychedelic use.

In addition, these insights also hold important implications for psychedelic-assisted psychotherapy. A deeper understanding of how individuals in this developmental stage engage and interact with psychedelic experiences can inform the ethical considerations surrounding the medicalisation of these substances and the populations involved in clinical research. By recognising how integration is navigated in a range of settings, researchers and clinicians can better shape procedures for managing adverse reactions, reporting harms, and provide appropriate support. Such findings can ultimately contribute to safer and more inclusive therapeutic practices as psychedelics become more integrated into mainstream mental health care. In this way, the current study responds to ongoing calls from within the field for greater clarity around the concept of integration and what factors may support or hinder individuals in that process [40].

Conclusion

By centring the first-person accounts of adolescents and young adults, this research presents an age-specific perspective on how challenging psychedelic experiences are understood, processed, and integrated. The findings suggest that integration in this age group is shaped not only by the psychological complexity of the experience itself but also by broader developmental, relational, and psycho-social factors to which individuals return after the trip. Rather than viewing adverse experiences solely through the lens of risk, participants often described a more nuanced and multifaceted process, where harm and insight coexist, and where the presence of an adequate support network has the potential to shift the trajectory of their extended challenges from distress to

meaningful growth. These insights underscore the importance of age-appropriate, accessible forms of integration support and signal the need for greater recognition of the specific challenges young people face in non-clinical psychedelic contexts.

Abbreviations

- *PAT*
Psychedelic assisted therapy
- *PHRI*
Psychedelic Harm Reduction and Integration
- *CPEP*
Challenging Psychedelic Experiences Project

Declarations

- Ethics approval and consent to participate

Ethical approval was initially granted by University of Greenwich University Research Ethics Board (application ref: 21.5.7.20) for the initial participant recruitment and given approval for the qualitative interviews via the University of Greenwich School of Human Sciences Research Ethics Panel for Psychology and Counselling. All participants gave their informed consent for participation.

- Consent for publication

Not applicable

- Availability of data and materials

The data is not publicly available as it may contain personally sensitive or identifying material and can be made available in redacted form via the corresponding author for reasonable requests prior to destruction on 31st January 2027.

- Competing interests

The authors declare that they have no competing interests

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- Authors' contributions

SB & DL conception; SB, DL & OR design; SB data acquisition; SB analysis, with DL & OR supervising/checking analysis; SB, DL & OR drafted the manuscript; all authors contributed to participant recruitment, interpretation of the data, and read and approved the final manuscript.

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- Authors' information (optional)

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References

1. Raj P, Rauniyar S, Sapkale B. Psychedelic drugs or hallucinogens: Exploring their medicinal potential. Cureus [Internet]. 2023;15(11):e48719. Available from: <http://dx.doi.org/10.7759/cureus.48719>

2. Schenberg EE. Psychedelic-assisted psychotherapy: A paradigm shift in psychiatric research and development. *Front Pharmacol* [Internet]. 2018;9:733. Available from: <http://dx.doi.org/10.3389/fphar.2018.00733>
3. Nayak SM, Jackson H, Sepeda ND, Mathai DS, So S, Yaffe A, et al. Naturalistic psilocybin use is associated with persisting improvements in mental health and wellbeing: results from a prospective, longitudinal survey. *Front Psychiatry* [Internet]. 2023;14:1199642. Available from: <http://dx.doi.org/10.3389/fpsy.2023.1199642>
4. Raison CL, Jain R, Penn AD, Cole SP, Jain S. Effects of naturalistic psychedelic use on depression, anxiety, and well-being: Associations with patterns of use, reported harms, and transformative mental states. *Front Psychiatry* [Internet]. 2022;13:831092. Available from: <http://dx.doi.org/10.3389/fpsy.2022.831092>
5. Studerus E, Kometer M, Hasler F, Vollenweider FX. Acute, subacute and long-term subjective effects of psilocybin in healthy humans: a pooled analysis of experimental studies. *J Psychopharmacol* [Internet]. 2011;25(11):1434–52. Available from: <http://dx.doi.org/10.1177/0269881110382466>
6. Argyri EK, Evans J, Luke D, Michael P, Michelle K, Rohani-Shukla C, Suseelan S, Prideaux E, McAlpine R, Murphy-Beiner A, Robinson OC. Navigating groundlessness: An interview study on dealing with ontological shock and existential distress following psychedelic experiences. *PLoS One*. 2025 May 5;20(5):e0322501. doi: 10.1371/journal.pone.0322501
7. Bremner R, Katati N, Shergill P, Erritzoe D, Carhart-Harris RL. Case analysis of long-term negative psychological responses to psychedelics. *Sci Rep* [Internet]. 2023;13(1):15998. Available from: <http://dx.doi.org/10.1038/s41598-023-41145-x>
8. Evans J, Robinson OC, Argyri EK, Suseelan S, Murphy-Beiner A, McAlpine R, et al. Extended difficulties following the use of psychedelic drugs: A mixed methods study. *PLoS One* [Internet]. 2023;18(10):e0293349. Available from: <http://dx.doi.org/10.1371/journal.pone.0293349>
9. Carbonaro TM, Bradstreet MP, Barrett FS, MacLean KA, Jesse R, Johnson MW, et al. Survey study of challenging experiences after ingesting psilocybin mushrooms: Acute and enduring positive and negative consequences. *J Psychopharmacol* [Internet]. 2016;30(12):1268–78. Available from: <http://dx.doi.org/10.1177/0269881116662634>
10. Izmi N, Carhart-Harris RL, Kettner H. Psychological effects of psychedelics in adolescents. *Front Child Adolesc Psychiatry* [Internet]. 2024;3:1364617. Available from: <http://dx.doi.org/10.3389/frcha.2024.1364617>
11. Bouso JC, Andi3n 3, Sarris JJ, Scheidegger M, T3foli LF, Opaleye ES, et al. Adverse effects of ayahuasca: Results from the Global Ayahuasca Survey. *PLOS Glob Public Health* [Internet]. 2022;2(11):e0000438. Available from: <http://dx.doi.org/10.1371/journal.pgph.0000438>
12. Farah R, Kerns AF, Murray AC, Holstege CP. Psilocybin exposures reported to U.S. poison centers: National trends over a decade. *J Adolesc Health* [Internet]. 2024;74(5):1053–6. Available from: <http://dx.doi.org/10.1016/j.jadohealth.2024.01.027>
13. Bathje GJ, Majeski E, Kudowor M. Psychedelic integration: An analysis of the concept and its practice. *Front Psychol* [Internet]. 2022;13:824077. Available from: <http://dx.doi.org/10.3389/fpsyg.2022.824077>
14. Johnson M, Richards W, Griffiths R. Human hallucinogen research: guidelines for safety. *J Psychopharmacol* [Internet]. 2008;22(6):603–20. Available from: <http://dx.doi.org/10.1177/0269881108093587>
15. Luoma JB, Chwyl C, Bathje GJ, Davis AK, Lancelotta R. A meta-analysis of placebo-controlled trials of psychedelic-assisted therapy. *J Psychoactive Drugs* [Internet]. 2020;52(4):289–99. Available from: <http://dx.doi.org/10.1080/02791072.2020.1769878>
16. Brekxema JJ, Kuin BW, Kamphuis J, van den Brink W, Vermetten E, Schoevers RA. Adverse events in clinical treatments with serotonergic psychedelics and MDMA: A mixed-methods systematic review. *J Psychopharmacol* [Internet]. 2022;36(10):1100–17. Available from: <http://dx.doi.org/10.1177/02698811221116926>
17. Junqueira DR, Zorzela L, Golder S, Loke Y, Gagnier JJ, Julious SA, et al. CONSORT Harms 2022 statement, explanation, and elaboration: updated guideline for the reporting of harms in randomised trials. *BMJ* [Internet]. 2023;381:e073725. Available from: <http://dx.doi.org/10.1136/bmj-2022-073725>
18. van Elk M, Fried EI. History repeating: guidelines to address common problems in psychedelic science. *Ther Adv Psychopharmacol* [Internet]. 2023;13:20451253231198466. Available from: <http://dx.doi.org/10.1177/20451253231198466>
19. Glynos NG, Fields CW, Barron J, Herberholz M, Kruger DJ, Boehnke KF. Naturalistic psychedelic use: A world apart from clinical care. *J Psychoactive Drugs* [Internet]. 2023;55(4):379–88. Available from: <http://dx.doi.org/10.1080/02791072.2022.2108356>
20. Ona G, Kohek M, Bouso JC. The illusion of knowledge in the emerging field of psychedelic research. *New Ideas Psychol* [Internet]. 2022;67(100967):100967. Available from: <http://dx.doi.org/10.1016/j.newideapsych.2022.100967>

21. Patrick ME, Miech RA, Johnston LD, O'Malley PM. (2023). Monitoring the future panel study annual report: National data on substance use among adults ages 19 to 60, 1976-2022. Monitoring the future monograph series. Ann Arbor, MI: Institute for Social Research, University of Michigan. 2023. <https://monitoringthefuture.org/wp-content/uploads/2023/07/mtfpanel2023.pdf>. Accessed 10 April 2024.
22. Zhou K, De Wied D, Carhart-Harris R, Kettner H. Predictors of hallucinogen persisting perception disorder symptoms, delusional ideation and magical thinking following naturalistic psychedelic use [Internet]. PsyArXiv. 2022. Available from: <http://dx.doi.org/10.31234/osf.io/txzha>
23. Caballero A, Granberg R, Tseng KY. Mechanisms contributing to prefrontal cortex maturation during adolescence. *Neurosci Biobehav Rev* [Internet]. 2016;70:4–12. Available from: <http://dx.doi.org/10.1016/j.neubiorev.2016.05.013>
24. Sugranyes G, Flamarique I, Parellada E, Baeza I, Goti J, Fernandez-Egea E, et al. Cannabis use and age of diagnosis of schizophrenia. *Eur Psychiatry* [Internet]. 2009;24(5):282–6. Available from: <http://dx.doi.org/10.1016/j.eurpsy.2009.01.002>
25. Arnett JJ. Emerging adulthood. A theory of development from the late teens through the twenties. *Am Psychol* [Internet]. 2000;55(5):469–80. Available from: <http://dx.doi.org/10.1037//0003-066x.55.5.469>
26. Arnett JJ. Emerging adulthood: What is it, and what is it good for? *Child Dev Perspect* [Internet]. 2007;1(2):68–73. Available from: <http://dx.doi.org/10.1111/j.1750-8606.2007.00016.x>
27. Stone AA, Schwartz JE, Broderick JE, Deaton A. A snapshot of the age distribution of psychological well-being in the United States. *Proc Natl Acad Sci U S A* [Internet]. 2010;107(22):9985–90. Available from: <http://dx.doi.org/10.1073/pnas.1003744107>
28. Robbins A, Wilner A. Quarterlife crisis: The unique challenges of life in your twenties. New York, NY, USA: Jeremy P Tarcher; 2001.
29. Robinson OC. Emerging adulthood, early adulthood and quarter-life crisis: Updating Erikson for the twenty-first century. In: Žukauskiene R, editor. *Emerging adulthood in a European context*. New York: Routledge; 2016. p. 17–30.
30. Newlove-Delgado T, Marcheselli F, Williams T, Mandalia D, Dennes M, McManus S, et al. Mental Health of Children and Young People in England, 2023 [Internet]. 2023. Available from: <https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2023-wave-4-follow-up>
31. Vogel DL, Wade NG, Hackler AH. Perceived public stigma and the willingness to seek counseling: The mediating roles of self-stigma and attitudes toward counseling. *J Couns Psychol* [Internet]. 2007;54(1):40–50. Available from: <http://dx.doi.org/10.1037/0022-0167.54.1.40>
32. Kranke D, Floersch J. Mental health stigma among adolescents: Implications for school social workers. *School social work journal*. 2009;34(1):28–42.
33. Meredith LS, Stein BD, Paddock SM, Jaycox LH, Quinn VP, Chandra A, et al. Perceived barriers to treatment for adolescent depression. *Med Care* [Internet]. 2009;47(6):677–85. Available from: <http://dx.doi.org/10.1097/MLR.0b013e318190d46b>
34. Bluhm RL, Covin R, Chow M, Wrath A, Osuch EA. 'I just have to stick with it and it'll work': experiences of adolescents and young adults with mental health concerns. *Community Ment Health J* [Internet]. 2014;50(7):778–86. Available from: <http://dx.doi.org/10.1007/s10597-014-9695-x>
35. Salaheddin K, Mason B. Identifying barriers to mental health help-seeking among young adults in the UK: a cross-sectional survey. *Br J Gen Pract* [Internet]. 2016;66(651):e686-92. Available from: <http://dx.doi.org/10.3399/bjgp16X687313>
36. Lundvall M, Palmér L, Hörberg U, Carlsson G, Lindberg E. Finding an existential place to rest: enabling well-being in young adults. *Int J Qual Stud Health Well-being* [Internet]. 2022;17(1):2109812. Available from: <http://dx.doi.org/10.1080/17482631.2022.2109812>
37. Earleywine M, Low F, Lau C, De Leo J. Integration in psychedelic-assisted treatments: Recurring themes in current providers' definitions, challenges, and concerns. *J Humanist Psychol* [Internet]. 2022;002216782210858. Available from: <http://dx.doi.org/10.1177/00221678221085800>
38. Greñ J, Gorman I, Ruban A, Tylš F, Bhatt S, Aixalà M. Call for evidence-based psychedelic integration. *Exp Clin Psychopharmacol* [Internet]. 2024;32(2):129–35. Available from: <http://dx.doi.org/10.1037/pha0000684>
39. Aixalà M. *Psychedelic integration: Psychotherapy for non-ordinary states of consciousness*. Synergetic Press; 2022.
40. Ali IL, Bathje GJ, Hallisey R, Booher L, Novick B, Feduccia A. Practical and ethical considerations for psychedelic therapy and integration practices. *Journal of Psychedelic Psychiatry*. 2021;3(3):1-20. DOI: 10.1177/13634615221082796o

41. Carhart-Harris RL, Roseman L, Haijen E, Erritzoe D, Watts R, Branchi I, et al. Psychedelics and the essential importance of context. *J Psychopharmacol* [Internet]. 2018;32(7):725–31. Available from: <http://dx.doi.org/10.1177/0269881118754710>
42. Eisner B. Set, setting, and matrix. *J Psychoactive Drugs* [Internet]. 1997;29(2):213–6. Available from: <http://dx.doi.org/10.1080/02791072.1997.10400190>
43. Lutkajtis A, Evans J. Psychedelic integration challenges: Participant experiences after a psilocybin truffle retreat in the Netherlands. *J Psychedelic Stud* [Internet]. 2023;6(3):211–21. Available from: <http://dx.doi.org/10.1556/2054.2022.00232>
44. Sjöstedt-Hughes P. On the need for metaphysics in psychedelic therapy and research. *Front Psychol* [Internet]. 2023;14:1128589. Available from: <http://dx.doi.org/10.3389/fpsyg.2023.1128589>
45. Grof C, Grof S. *Spiritual emergency: When personal transformation becomes a crisis*. Penguin Publishing Group; 1989.
46. Robinson OC, Evans J, Luke D, McAlpine R, Sahely A, Fisher A, et al. 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. *Front Psychol* [Internet]. 2024;15:1369715. Available from: <http://dx.doi.org/10.3389/fpsyg.2024.1369715>
47. Aixalà M. Developing integration of visionary experiences: A future without integration [Internet]. Chacruna. 2017 [cited 2025 Apr 7]. Available from: <https://chacruna.net/developing-integration-visionary>
48. Metzner R. Entheogenic rituals, shamanism and green psychology. *European journal of ecopsychology*. 2013;4(1):64–77.
49. Loizaga-Velder A, Pazzi AL. Therapist and patient perspectives on ayahuasca-assisted treatment for substance dependence. In: Labate B, Cavna C, editors. *The Therapeutic Use of Ayahuasca*. Berlin, Heidelberg: Springer Berlin Heidelberg; 2014. p. 133–52.
50. Gorman I, Nielson EM, Molinar A, Cassidy K, Sabbagh J. Psychedelic Harm Reduction and Integration: A transtheoretical model for clinical practice. *Front Psychol* [Internet]. 2021;12:645246. Available from: <http://dx.doi.org/10.3389/fpsyg.2021.645246>
51. Nowell LS, Norris JM, White DE, Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. *Int J Qual Methods* [Internet]. 2017;16(1):160940691773384. Available from: <http://dx.doi.org/10.1177/1609406917733847>
52. Braun V, Clarke V. Reflecting on reflexive thematic analysis. *Qual Res Sport Exerc Health* [Internet]. 2019;11(4):589–97. Available from: <http://dx.doi.org/10.1080/2159676x.2019.1628806>
53. Clarke V, Braun V. Thematic analysis. *J Posit Psychol* [Internet]. 2017;12(3):297–8. Available from: <http://dx.doi.org/10.1080/17439760.2016.1262613>
54. Braun V, Clarke V. Successful qualitative research: A practical guide for beginners. *Colombo Bus J Int J Theory Pract* [Internet]. 2013;6(1):73. Available from: <http://dx.doi.org/10.4038/cbj.v6i1.99>
55. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* [Internet]. 2006;3(2):77–101. Available from: <http://dx.doi.org/10.1191/1478088706qp063oa>
56. Carhart-Harris RL, Friston KJ. REBUS and the anarchic brain: Toward a unified model of the brain action of psychedelics. *Pharmacol Rev* [Internet]. 2019;71(3):316–44. Available from: <http://dx.doi.org/10.1124/pr.118.017160>
57. Cowley-Court T, Chenhall R, Sarris J, Bouso JC, Tófoli LF, Opaleye ES, et al. Life after ayahuasca: A qualitative analysis of the psychedelic integration experiences of 1630 ayahuasca drinkers from a global survey. *Psychoactives* [Internet]. 2023;2(2):201–21. Available from: <http://dx.doi.org/10.3390/psychoactives2020014>
58. Robinson OC, Evans J, McAlpine R, Argyri E, Luke D (2024) An investigation into the varieties of extended difficulties following psychedelic drug use: duration, severity and helpful coping strategies. *Journal of Psychedelic Studies* [Internet]. 2024;9(2): 1-9. <https://doi.org/10.1556/2054.2024.00420>
59. Sjöstedt-Hughes P. On the need for metaphysics in psychedelic therapy and research. *Front Psychol* [Internet]. 2023;14:1128589. Available from: <http://dx.doi.org/10.3389/fpsyg.2023.1128589>
60. Davis AK, Agin-Liebman G, España M, Pilecki B, Luoma J. Attitudes and beliefs about the therapeutic use of psychedelic drugs among psychologists in the United States. *J Psychoactive Drugs* [Internet]. 2022;54(4):309–18. Available from: <http://dx.doi.org/10.1080/02791072.2021.1971343>
61. Forsberg S, Downey AE, Bruett LD, Hail L, Fernandes-Osterhold G, Woolley JD, Lafrance A, Raymond-Flesch M. Leveraging family and caregiver support in psychedelic-assisted therapy: considerations for the treatment of adolescents. *Child Adolesc Psychiatry Ment Health*. 2025 Jun 4;19(1):64. doi: 10.1186/s13034-025-00930-4
62. Schultes R. An overview of hallucinogens in the Western hemisphere. In: Furst P, editor. *Flesh of the gods*. New York, NY, USA: Praeger; 1972. p. 3–54.

63. Furst P. Hallucinogens and culture. San Francisco: Chandler and Sharp; 1976.
64. Millman RB, Beeder AB. The new psychedelic culture: LSD, ecstasy, 'rave' parties and the grateful dead. *Psychiatr Ann* [Internet]. 1994;24(3):148–50. Available from: <http://dx.doi.org/10.3928/0048-5713-19940301-12>
65. Mosina I, Michael P. Recreational use of psychedelics at music festivals: Motivation, nature of experiences and learnings. *J Psychedelic Stud* [Internet]. 2024; Available from: <http://dx.doi.org/10.1556/2054.2023.00282>
66. Erikson EH. *Identity: Youth and crisis*. New York, NY, USA: WW Norton; 1968.
67. Tedeschi RG, Calhoun LG. TARGET ARTICLE: 'posttraumatic growth: Conceptual foundations and empirical evidence'. *Psychol Inq* [Internet]. 2004;15(1):1–18. Available from: http://dx.doi.org/10.1207/s15327965pli1501_01
68. Suzuki J, Dekker MA, Valenti ES, Arbelo Cruz FA, Correa AM, Poklis JL, et al. Toxicities associated with NBOMe ingestion—a novel class of potent hallucinogens: a review of the literature. *Psychosomatics* [Internet]. 2015;56(2):129–39. Available from: <http://dx.doi.org/10.1016/j.psym.2014.11.002>
69. Nichols DE. Psychedelics. *Pharmacol Rev* [Internet]. 2016;68(2):264–355. Available from: <http://dx.doi.org/10.1124/pr.115.011478>
70. Williams MT, Labate BC. Diversity, equity, and access in psychedelic medicine. *J Psychedelic Stud* [Internet]. 2019;4(1):1–3. Available from: <http://dx.doi.org/10.1556/2054.2019.032>
71. Simonsson O, Hendricks PS, Chambers R, Osika W, Goldberg SB. Prevalence and associations of challenging, difficult or distressing experiences using classic psychedelics. *J Affect Disord*. 2023;326:105–110. [10.1016/j.jad.2023.01.073](https://doi.org/10.1016/j.jad.2023.01.073)

Figures

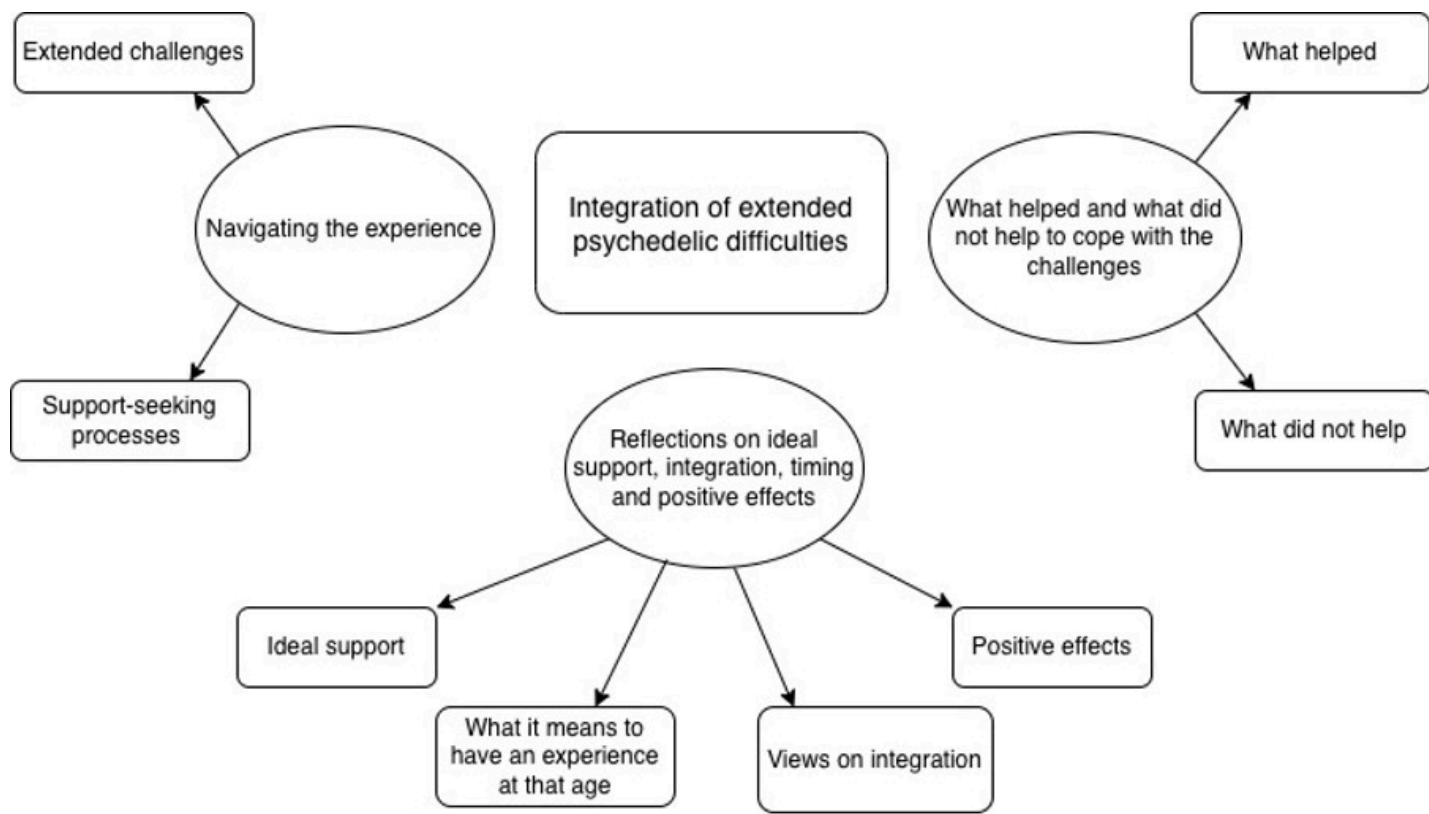


Figure 1

Superordinate themes and themes

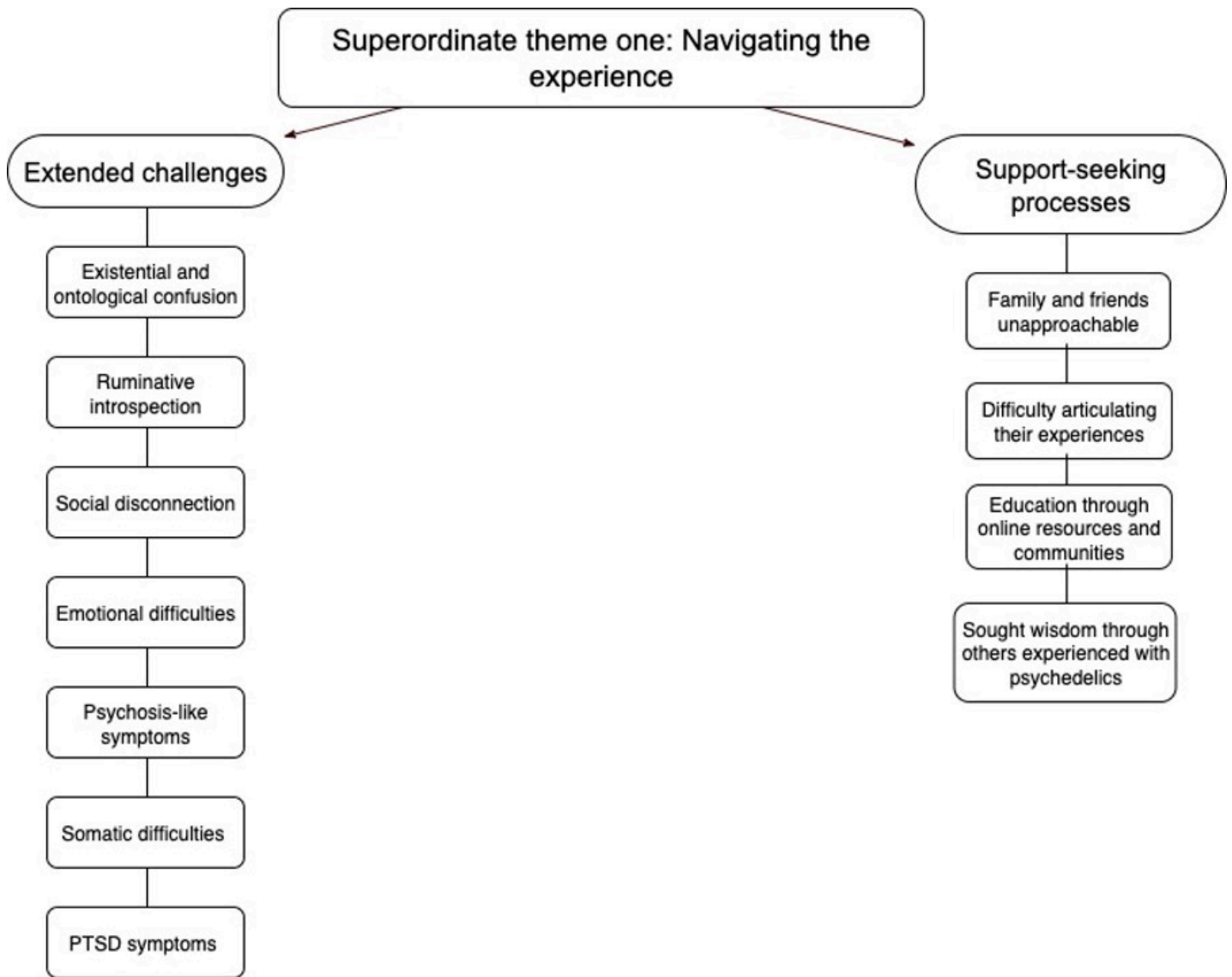


Figure 2

Legend not included with this version

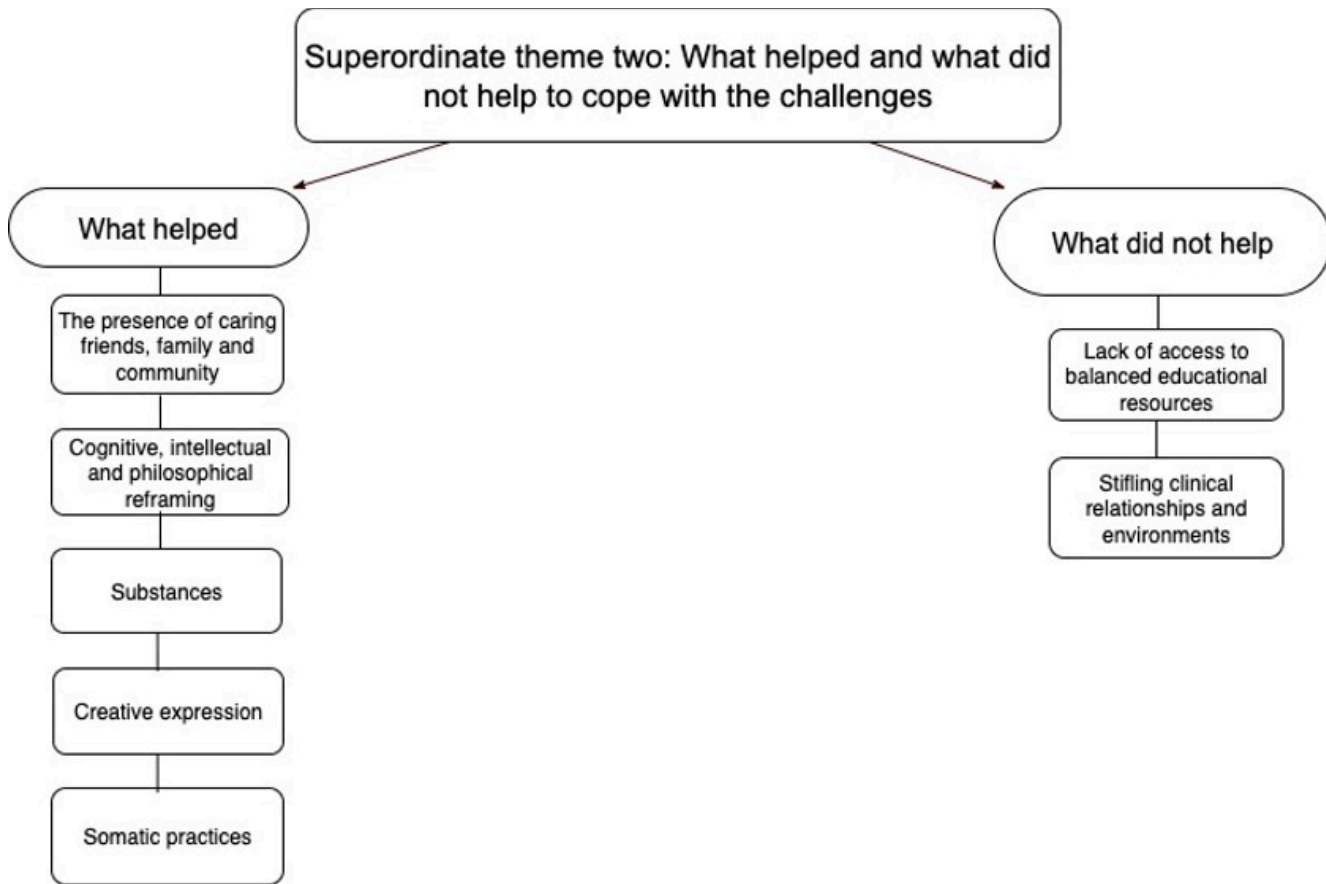


Figure 3

Legend not included with this version

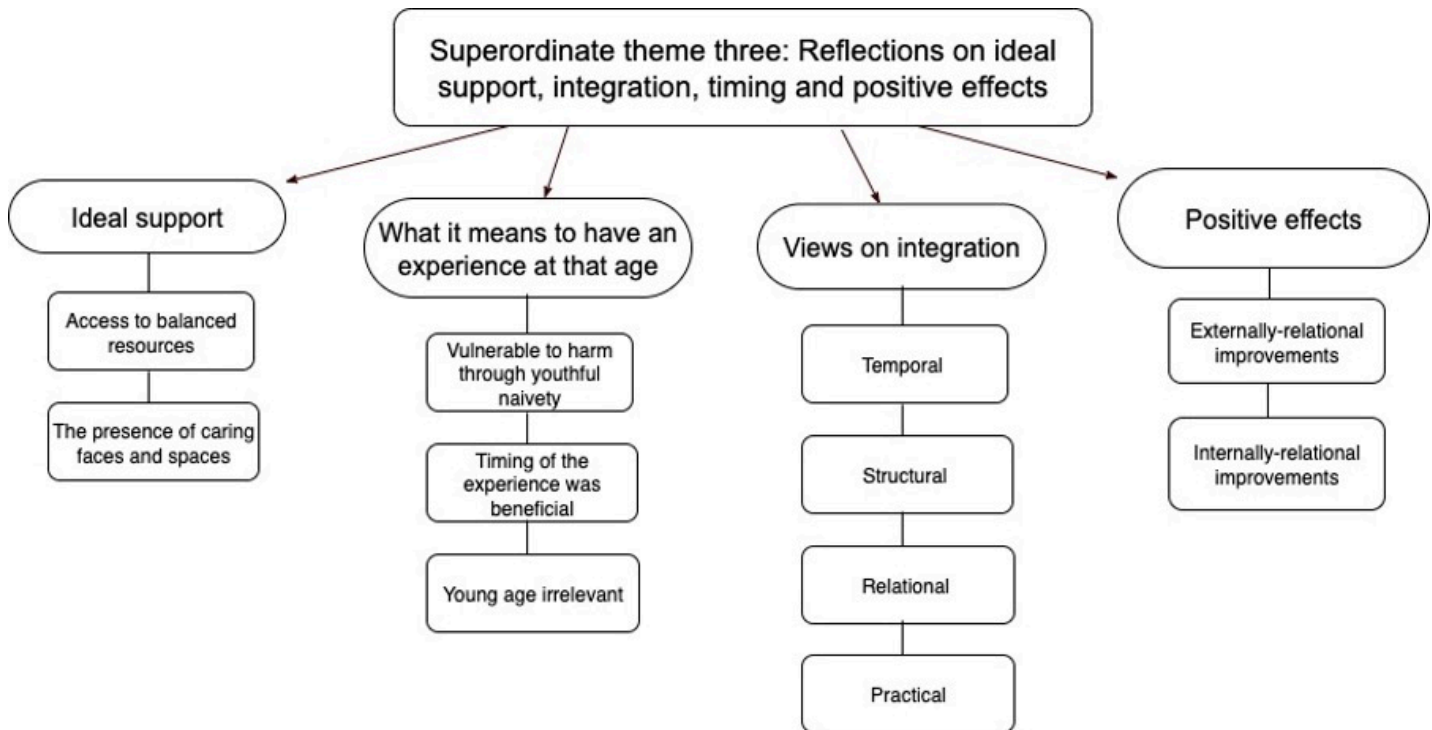


Figure 4

Legend not included with this version

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