

## **Psilocybin-Assisted Therapy: A scoping review of participants' and facilitators' experiences in qualitative studies**

**Terapia Assistida por Psilocibina: Uma revisão de escopo das experiências dos participantes e facilitadores em estudos qualitativos**

**Terapia Asistida con Psilocibina: Una revisión exhaustiva de las experiencias de los participantes y facilitadores en estudios cualitativos**

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### **Abstract**

There has been a surge in research on Psilocybin-Assisted Therapy (PAT) over the past three decades. PAT has yielded positive results across clinical trials and demonstrated efficacy in treating various mental disorders. However, limited qualitative research exists that explores peoples' experiences of PAT. This study aims to review the current literature on the experiences of individuals that have participated in PAT, as well as individuals that have facilitated PAT. This study aims to increase our understanding of PAT to guide and improve therapeutic effectiveness. A scoping review was conducted from English language studies published in peer-reviewed journals. Searches were conducted from *PsycInfo*, *CINAHL*, *PubMed*, *Web of Science*, and *Cochrane Library* databases. Inclusion criteria were qualitative studies involving PAT that were conducted between January 1990 and December 2022; articles published in peer-reviewed journals; and psychedelic practitioners' experiences of facilitating PAT. In total, 13 articles were extracted to be included in the review. Articles were published between 2017 and 2021, and were divided into (1) Participant Studies (10) and (2) Facilitator Studies (3). Six themes were identified: the influence of set and setting; PAT was personalised and meaningful; PAT can be highly emotive; transcendental experiences; reduction of symptoms and long-lasting changes; and boundaries and responsibility. The literature revealed numerous interrelated therapeutic elements that may have contributed to a meaningful experience during PAT. This may play a role in attaining long-lasting positive therapeutic outcomes. The studies were varied and highlighted the usefulness of further exploring PAT.

**Keywords:** Psilocybin; Psychedelic mushroom; Psilocybin-assisted therapy; Scoping review; Experiences; Qualitative research.

### **Resumo**

Houve um aumento na pesquisa sobre Terapia Assistida por Psilocibina (TAP) nas últimas três décadas. O TAP produziu resultados positivos em ensaios clínicos e demonstrou eficácia no tratamento de vários transtornos mentais. No entanto, existe uma investigação qualitativa limitada que explora as experiências das pessoas em matéria de TAP. Este estudo tem como objetivo revisar a literatura atual sobre as experiências de indivíduos que participaram do TAP, bem como de indivíduos que facilitaram o TAP. Este estudo visa aumentar nossa compreensão do TAP para orientar e melhorar a eficácia. Uma revisão de escopo foi conduzida a partir de estudos de língua inglesa publicados em periódicos revisados por pares. As pesquisas foram realizadas nas bases de dados *PsycInfo*, *CINAHL*, *PubMed*, *Web of Science* e *Cochrane Library*. Os critérios de inclusão foram estudos qualitativos envolvendo TAP realizados entre Janeiro de 1990 e Dezembro de 2022; artigos publicados em revistas especializadas; e experiências de praticantes psicodélicos de facilitação do TAP. No total, foram extraídos 13 artigos para inclusão na revisão. Os artigos foram publicados entre 2017 e 2021 e foram divididos em (1) Estudos de Participantes (10) e (2) Estudos de Facilitadores (3). Foram identificados seis temas: a influência do cenário e do cenário; O TAP foi personalizado e significativo; TAP pode ser altamente emotivo; experiências transcendentais; redução dos sintomas e alterações duradouras; e limites e responsabilidade. A literatura revelou numerosos elementos terapêuticos inter-relacionados que podem ter contribuído para uma experiência significativa durante o TAP. Isto pode desempenhar um papel na obtenção de resultados terapêuticos positivos duradouros. Os estudos foram variados e destacaram a utilidade de explorar mais o TAP.

**Palavras-chave:** Psilocibina; Cogumelo psicodélico; Terapia assistida por psilocibina; Revisão de escopo; Experiências; Pesquisa qualitativa.

## Resumen

En las últimas tres décadas se ha producido un aumento de la investigación sobre la Terapia Asistida con Psilocibina (PAT). La PAT ha arrojado resultados positivos en ensayos clínicos y ha demostrado su eficacia en el tratamiento de diversos trastornos mentales. Sin embargo, existe poca investigación cualitativa que explore las experiencias de las personas con la PAT. Este estudio tiene como objetivo revisar la literatura actual sobre las experiencias de las personas que han participado en PAT, así como las personas que han facilitado PAT. Este estudio pretende aumentar nuestra comprensión de la PAT para orientar y mejorar la eficacia terapéutica. Se realizó una revisión del alcance de los estudios en inglés publicados en revistas revisadas por pares. Se realizaron búsquedas en las bases de datos *PsycInfo*, *CINAHL*, *PubMed*, *Web of Science* y *Cochrane Library*. Los criterios de inclusión fueron estudios cualitativos que incluyeran PAT realizados entre enero de 1990 y diciembre de 2022; artículos publicados en revistas revisadas por pares; y experiencias psicodélicas de profesionales en la facilitación de PAT. En total, se extrajeron 13 artículos para ser incluidos en la revisión. Los artículos se publicaron entre 2017 y 2021, y se dividieron en (1) estudios de participantes (10) y (2) estudios de facilitadores (3). Se identificaron seis temas: la influencia del conjunto y el entorno; PAT fue personalizada y significativa; PAT puede ser altamente emotiva; experiencias trascendentales; reducción de síntomas y cambios duraderos; límites y responsabilidad. La literatura reveló numerosos elementos terapéuticos interrelacionados que pueden haber contribuido a una experiencia significativa durante la PAT. Esto puede desempeñar un papel en el logro de resultados terapéuticos positivos y duraderos. Los estudios fueron variados y destacaron la utilidad de seguir explorando la PAT.

**Palabras clave:** Psilocibina; Hongo psicodélico; Terapia asistida con psilocibina; Revisión general; Experiencias; Investigación cualitativa.

## 1. Introduction

Mind-altering plants and fungi have been used by indigenous cultures around the world for thousands of years (Pollan, 2018; Ross et al., 2016; Schultes et al., 2001). Since the 1990s, there has been a resurgence of academic research into the therapeutic potential of psychedelic substances (Griffiths et al., 2016; Guthrie, 2021; Nutt, 2019). Clinical trials have demonstrated the efficacy of psychedelics for the treatment of various mental disorders (Carhart-Harris et al., 2016; Grob et al., 2011), as well as prompting positive personality changes (Bouso et al., 2018), stimulating significant mystical experiences (Johnson et al., 2008), and improving mindfulness and connectedness among participants (Soler et al., 2016; Soler et al., 2018; Thal et al., 2021). Psilocybin, or ‘magic mushrooms’, has specifically shown efficacy in treating treatment-resistant obsessive-compulsive disorder (Moreno et al., 2006), end-of-life anxiety and depression (Griffiths et al., 2016; Grob et al., 2011; Ross et al., 2016), major depressive disorder (Brennan et al., 2021), alcohol dependence (Bogenschutz et al., 2015), and treatment-resistant depression (Carhart-Harris et al., 2016; Carhart-Harris et al., 2018). Moreover, across clinical trials, approximately 70% to 90% of participants evaluated their psilocybin experience among the top five most significant experiences of their lifetime (Griffiths et al., 2016; Johnson & Griffiths, 2017).

Psilocybin, used in conjunction with therapy, has shown positive results across clinical trials (Wheeler & Dyer, 2020). Psilocybin-Assisted Therapy (PAT) combines the pharmacological effects of psilocybin with therapeutic support (Pollan, 2018). PAT typically involves three phases, namely a preparation phase, an administration phase, and an integration phase (Hayes et al., 2022) of which the entire process can take place over several days (Mason et al., 2019). Moreover, PAT requires specially trained mental health professionals who are involved at each phase (Coleman & Walker, 2017). These professionals are typically referred to as facilitators, psychedelic practitioners, or guides. The inclusion of psychotherapy in each phase has shown potential in treating psychiatric disorders (Johnson, 2017), as well as improving connectedness and wellbeing (Stauffer et al., 2021).

However, the nuances of PAT are not yet fully understood (Belser et al., 2017). Some literature suggests that the effectiveness of PAT may be related to meaning derived during non-ordinary states of consciousness (Grob, 2008). Other research suggests that the value attained from PAT is from breaking maladaptive emotional and cognitive patterns and then assisting in the reintegration into a new structure (Frecska, 2011). According to Bogenschutz et al. (2018), the therapeutic benefit may possibly be derived from making repressed unconscious material conscious, coupled with successful integration of these experiences through psychotherapy.

Current research has predominantly focused on (1) clinical trials using quantitative methodologies to examine the therapeutic potential of psilocybin (Johnson et al., 2008; Shore et al., 2019; Wheeler & Dyer, 2020), or (2) surveying participants' experiences with self-administration of psilocybin without a trained facilitator (Shaw et al., 2022). Thus, there is limited qualitative research exploring participants' experiences of PAT, as well as facilitators' experiences (Dorsen et al., 2019). Albeit there are studies that incorporated a qualitative component following a clinical trial where patients' experiences were investigated (Noorani et al., 2018). These studies yielded promising results, such as positive personality changes, that persisted after the acute effects of the psilocybin subsided (Bogenschutz, 2018; Noorani et al., 2018). Nevertheless, there remains limited research employing qualitative methods to explore the experiential value of PAT (Agin-Liebes et al., 2021).

Previous research has highlighted that qualitative methods offer an in-depth understanding of patients' subjective experiences (Meikle et al., 2020) and the information can supplement the data obtained through quantitative measures (Watts, 2020). Therefore, by exploring patients' experiences, researchers could improve their understanding of the underlying psychological mechanisms and processes of PAT to ensure more effective treatment (Lutkajtis, 2021). Similarly, quantitative measures might not capture the full extent of the highly personalised psilocybin-induced experience. Qualitative research is, therefore, well-suited to explore the rich subjectivity of patients' experiences, their attributions of meaning, and help provide an improved understanding of PAT (Agin-Liebes et al., 2021).

Furthermore, despite the integral part that psychedelic facilitators play throughout PAT, there is limited research exploring their experiences (Nielson & Guss, 2018; Phelps & Henry, 2021). Research conducted in various settings using qualitative and/or quantitative methodologies, recognises the value of a facilitator (Breeksema et al., 2020; Wheeler & Dyer, 2020). In this context, the beneficial outcome of psilocybin is dependent on a compassionate environment where administration is guided by a healthcare professional and supplemented with psychotherapy (Al-Nagger et al., 2021; Breeksema et al., 2020; Lutkajtis, 2021). Conversely, Bienemann et al. (2020) noted that negative outcomes can occur when using psilocybin recreationally, specifically when ingesting multiple doses of psilocybin in the same session or combining it with other substances. This reiterates the importance of the presence of a trained facilitator for mediating intense experiences and establishing patient safety (Coleman & Walker, 2017). With this in mind, facilitators' experiences and challenges may provide valuable insight into the mechanisms of PAT.

As presented by the above, it is evident that there is value in qualitative exploration of the experiences of people who have been involved in PAT. By doing so, this study aims to contribute to the growing body of knowledge on PAT. More specifically, this study aims to review the current literature on the experiences of individuals that have participated in PAT, as well as individuals that have facilitated PAT to create a better understanding of a potentially advantageous, life-altering intervention. Although there are a small number of studies investigating patient experiences of PAT, there have been no scoping reviews conducted on this literature to gain a cohesive overview of the data that exists. Therefore, the present study aims to fill this gap by examining the qualitative research on PAT that has emerged since the resurgence of psychedelic research between 1990 and 2022. Specifically, this review study aims to explore both participants' and facilitators' experiences of PAT over the last three decades. Additionally, this study aims to review the methodological limitations of existing PAT studies and provide suggestions for future research. Overall, this study aims to increase our understanding of PAT, which may help guide and improve therapeutic effectiveness.

## 2. Methodology

A scoping review was conducted in order to integrate and examine the experiences of participants and facilitators of PAT and identify areas of additional inquiry. This methodology is useful as it focuses on a wider range of topics where different study designs may have been used (Peters et al., 2020). In this sense, a scoping review tends to be more broad and

inclusive compared to a systematic review (Arksey & O'Malley, 2005). This scoping review was conducted according to the methodology outlined by Arksey and O'Malley (2005). There are five stages in their framework: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting the data; and (5) collating, summarising, and reporting the results (Arksey & O'Malley, 2005).

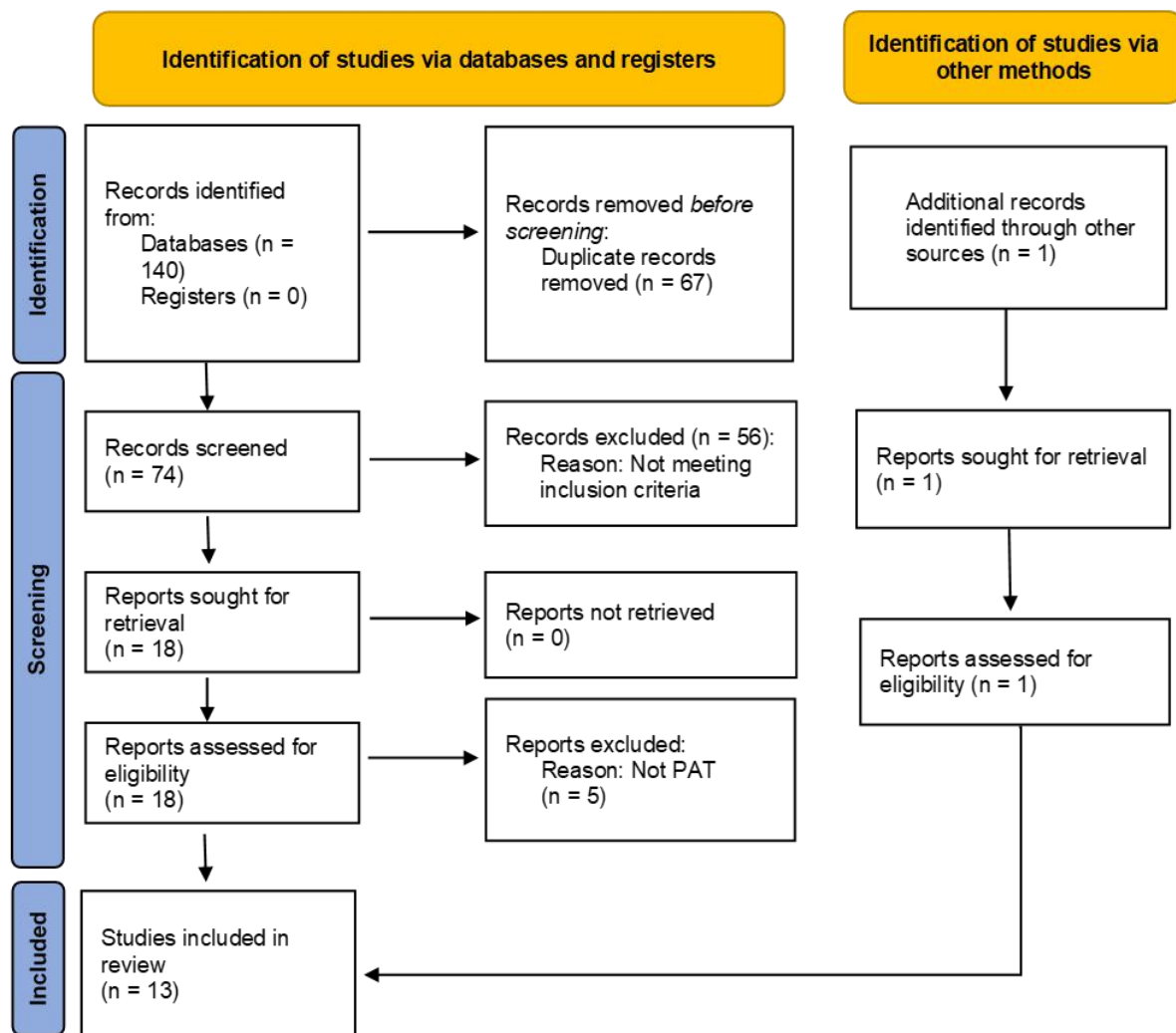
### Identifying the research question

The research questions that were identified in guiding the current review, included the following: (1) What are the experiences of participants who have undergone PAT? and (2) What are the experiences of facilitators who have facilitated PAT?

### Identifying relevant studies

The Preferred Reporting Item for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) was used to identify and organise relevant studies (Liberati et al., 2009; Tricco et al., 2018; Figure 1).

Figure 1 - PRISMA-ScR Flow Diagram.



Source: Author (2023).

The PRISMA-ScR checklist was used to increase rigour and reporting of this review (Tricco et al., 2018). A

comprehensive search was conducted using the following databases: *PubMed*, *PsycINFO*, *Cinahl*, *Web of Science*, and *Cochrane Library*. These databases were chosen as they offer a wide range of international multidisciplinary academic literature. The search was conducted in January 2023 for the period of January 1990 to December 2022. This time frame was selected to focus on current and relevant literature relating to the resurgence of psychedelic research. Additionally, the reference lists of all eligible reports and articles were hand-searched to identify any additional studies.

The following search terms were used: “psychedelic mushroom” OR “hallucinogenic mushroom” OR “magic mushroom” OR psilocybin AND “psychedelic-assisted psychotherapy” OR “-assisted psychotherapy” OR psychotherapy OR health OR treatment OR well-being OR “mental health” OR psychology OR therapeutic OR therapy OR wellness AND experience OR perspective OR subjective AND qualitative OR "grounded theory" OR "thematic analysis" OR "semi-structured interview" OR "focus group" OR "interpretive phenomenological analysis".

### **Study selection**

Abstracts and articles were screened using the open access software, *Rayyan* (Ouzzani et al., 2016). Full-text articles were saved to *Zotero* (a referencing software) and screened. Duplications were removed, and the results were assessed for eligibility and included or excluded from full-text review (Figure 1). Inclusion criteria for this scoping review included (1) qualitative studies where PAT took place that were conducted between January 1990 and December 2022; (2) articles published in a peer-reviewed journal; and (3) psychedelic practitioners’ experiences of facilitating PAT. Exclusion criteria included (1) studies published in a language other than English; (2) recreational use or self-administration of psilocybin; and (3) microdosing. Three review cycles were completed for quality control.

### **Charting the data**

The full-text of the selected studies was read and data charting was conducted. The extracted data included author(s) and year, study intervention, sample, study methodology, and key findings.

### **Collating, summarising, and reporting the results**

After charting the data, the results were categorised and summarised according to six main themes. Two coding cycles were completed to enhance rigour and trustworthiness. Themes were initially developed after collating coded data and revised after engaging in reflection on initial theme candidates. Furthermore, textual data were synthesised narratively using a descriptive qualitative content analysis approach, as per the guidelines set out by JBI Manual for Evidence Synthesis (Peters et al., 2020).

## **3. Results**

The electronic database searches and manual searching of reference lists yielded a total of 141 articles. After removing duplicates, 74 article titles were screened. The total number of articles excluded based on titles and abstracts amounted to 56, whereas full-text articles excluded totalled five. As a result, there were 13 articles that were identified for inclusion in the study (Table 1).

**Table 1** - Studies included in the scoping review.

Author, year	Intervention type	Sample	Study methodology	Key findings
Agin-Liebess et al. (2021)	There were 4 group therapy sessions, 1 individual psilocybin session, 1 individual psychotherapy session following the psilocybin session, followed by 4 - 6 group therapy sessions.	9 men diagnosed with HIV and PTSD (ages 50 - 64, $M = 57.9$ )	Micro-phenomenological interviews were conducted the day after the dosing session. IPA was used.	Themes identified: transition from automatic to mindful experiential processing of stimuli; trauma-oriented to growth-oriented schemas.
Barret et al. (2017)	Online survey with psychedelic therapists who use music in psilocybin therapy sessions.	10 psilocybin guides (ages 25 - 75+) who had guided more than 50 individuals in psilocybin therapy sessions.	Qualitative and quantitative analyses of survey data.	Music recommendations were made.
Belser et al. (2017)	RCT took place over 3 months, included 2 psilocybin administration sessions, 9 psychotherapy sessions.	13 adults diagnosed with cancer (ages 22 - 69, $M = 50$ )	Semi-structured interviews took place 1 week after the 2nd dosing session ( $n=5$ ) and 1 year after the dosing session ( $n=8$ ). IPA was used.	Main themes identified: relational embeddedness, emotional range, role of music, meaningful visual phenomena, wisdom lessons, and revised life priorities.
Bogenschutz et al. (2018)	RCT took place over 12 weeks, with 2 drug administration sessions. In the first medication session, psilocybin or diphenhydramine was administered. The dose for the second session may have been increased or held at the original dose. Following completion of the double-blind period, all participants who met interim safety criteria were offered an additional open-label session in which psilocybin was administered.	3 adults with AUD (ages 20s - 50s)	Data was collected from audiotapes of therapy sessions and observations of the study team. Quantitative and qualitative analyses were done.	3 cases presented. Main observation: experiences are extremely variable and personally meaningful.
Brennan et al. (2021)	Interviews were conducted with psychedelic practitioners about their experiences of ethical relationships and boundary-setting in their psychedelic work.	23 psychedelic practitioners who had facilitated psychedelic work for at least 4 years and had served at least 20 clients.	In-depth telephonic interviews were conducted. Phenomenological analysis was done.	13 descriptive themes and 15 prescriptive themes were identified regarding the ethical challenges that psychedelic psychotherapists face.
Dorsen et al. (2019)	Interviews were conducted with psychedelic practitioners regarding ceremonial plant medicine and recreational drug use.	15 adults who facilitate plant medicine ceremonies (ages 30s - 70s)	Individual in-depth, semi-structured interviews were conducted. Descriptive content analysis was done.	Main themes identified: clear conceptual differentiation between plant medicine use and recreational drug use; potential use as a treatment for drug and alcohol addiction; and possible demystification and encouragement of recreational use.
Kaelen et al. (2018)	RCT included 1 preparation session and 2 psilocybin dosage sessions.	19 patients undergoing PAT for treatment-resistant depression	Semi-structured interviews were conducted 1 week after the final session. IPA was used.	Main themes identified: welcome influences, unwelcome influences, appreciated music styles and playlist features, unappreciated music styles and playlist design.

Lutkajtis (2020)	A 3-day psilocybin retreat, including an extensive screening process, preparatory sessions, administration session, structured integration program.	4 healthy adult volunteers (ages 43 - 55, $M = 51$ )	Interviews took place 8 to 12 months after the retreat. An online survey, semi-structured interviews, and journal entries were used.	Case studies represent a sample of themes. Key theme: experience of insight.
Malone et al. (2018)	RCT took place over 12-18 weeks. There was preparatory psychotherapy prior to drug administration, support during the medication sessions, and integrative psychotherapy following drug administration.	4 adults diagnosed with cancer (ages 20s - 60s)	Semi-structured interviews took place 1 week after the 2nd dosing session and 1 year after the dosing session. Surveys and notes from study therapists were also used.	4 cases representing several themes, specifically revolving around self-compassion and love, as well as acceptance of death.
Nielson et al. (2018)	Pilot study took place over over 12 weeks with 2 psilocybin medication sessions and 12 non-drug psychotherapy sessions.	10 participants meeting criteria for alcohol dependence (ages 25 - 56)	Qualitative content analysis of transcripts from debriefing sessions (day after each dosing session) was done.	7 categories were identified which demonstrated that there may be several change-related phenomena of interest.
Noorani et al. (2018)	Pilot study included preparation sessions, CBT, mindfulness, dosage, weekly follow-ups for 10 weeks, 2nd dosage approximately 2 weeks after 1st. A 3rd dose was available. Monthly follow-ups.	12 participants consented (ages 31 - 67, $M = 54$ )	Semi-structured interviews took place 16 to 57 months after the dosing session. Thematic analysis was used.	Multiple themes were identified, which highlighted that conducting psilocybin sessions within a structured protocol led to insights, interconnectedness, and awe.
Swift et al. (2017)	RCT consisted of 2 drug administration sessions (spaced 7 weeks apart) and 9 psychotherapy sessions.	13 participants diagnosed with cancer-related psychological and existential distress.	Semi-structured interviews took place 1 week after the 2nd dosing session (n=5) and 1 year after the dosing session (n=8). IPA was used.	10 themes focused specifically on cancer, death and dying, and healing narratives.
Watts et al. (2017)	RCT included 1 screening session, 1 preparation session, a low-dose session, a high-dose session, and 2 follow-up sessions after the high-dose. 2 guides attended each session with each participant.	20 participants diagnosed with treatment-resistant depression (ages 30 - 64 years)	Semi-structured interviews took place at 6-month follow-up. Thematic analysis was used.	2 main themes were identified: a change from disconnection to connection and emotional avoidance to acceptance.

Source: Author (2023).

### **Article characteristics**

The full characteristics of each article are presented in Table 1. All included articles were published between 2017 and 2021. There were 10 studies conducted in the United States of America (USA), two in the United Kingdom (UK), and one in the Netherlands. Of the 13 studies, three studies explored psychedelic facilitators' experiences. Four studies were distinctive in that there was no overlap among authors. Moreover, there were two studies that focused specifically on the role of music during PAT, one from participants' perspectives (Barret et al., 2017) and one from facilitators' perspectives (Kaelen et al., 2018).

### ***Participants of PAT studies***

All of the studies followed a similar PAT approach including preparatory sessions, dosing session(s), and follow-up integration sessions, which were guided by trained psychedelic-assisted facilitators. The sample sizes of the 10 studies ranged from three to 20 participants and ages ranged from 22 to over 70 years. Of the 10 studies, 90% took place in a clinical setting and were subsampled from larger quantitative studies. This setting typically involved a bed on which the participant would lie with eye shades and headphones, with two therapists present in the session.

The participants from three of the reviewed studies (Belser et al., 2017; Malone et al., 2018; Swift et al., 2017) were recruited from a randomised controlled trial (RCT) of psilocybin treatment for cancer-related psychological and existential distress. It appears that the same participants were interviewed for all three studies. Participants from two of the included studies (Bogenschutz et al., 2018; Nielson et al., 2018) were recruited from a RCT evaluating the efficacy of psilocybin-assisted treatment for alcohol dependence. The participants from two other studies (Kaelen et al., 2018; Watts et al., 2017) were sourced from a clinical trial of psilocybin for treatment-resistant depression. Participants from one study were sampled from a clinical trial of group-based psilocybin-assisted therapy (Agin-Liebes et al., 2021). Another study sampled participants from a completed psilocybin-facilitated smoking cessation pilot study and were contacted for a follow-up study (Noorani et al., 2018). There was only one study that took place in a retreat setting with healthy volunteers (Lutkajtis, 2020). The retreat took place over three days and included breath-work and meditation, in addition to the preparatory and integration sessions.

Seven articles (70%) employed qualitative methods, whereas three articles (30%) employed mixed methods. Methods of data collection ranged from interviews, therapy session notes, journal extracts, transcripts from sessions, and observations. Data was collected between one day after the dosing sessions to 57 months after the dosing sessions. Data in these studies were analysed using interpretive phenomenological analysis (IPA) (Agin; Belser et al., 2017; Kaelen et al., 2018; Swift, 2017), thematic analysis (Noorani et al., 2018; Watts et al., 2017), direct content analysis (Nielson et al., 2018), or were presented as case studies (Bogenschutz et al., 2018; Lutkajtis, 2020; Malone et al., 2018).

### ***Facilitators of PAT studies***

The sample sizes of the three studies ranged from 10 to 23 facilitators and, where reported, ages ranged from 25 to over 75 years. All the studies placed emphasis on anonymity due to the illegal nature of PAT, therefore descriptive data was limited. The facilitators that participated in the studies had extensive experience in conducting psilocybin therapy sessions. Facilitators from one study had guided PAT sessions with 50 to 1200 individuals (Barret et al., 2017). Facilitators from another study had an average of 12.6 years of experience guiding psychedelic work and had at least one year of formal training in the therapeutic use of psychedelic substances (Brennan et al., 2021). The third study interviewed facilitators that had been involved in plant medicine ceremonies for three to 30 years and had a minimum of a Bachelor's degree (Dorsen et al., 2019).

Two of the three studies employed qualitative methods, whereas the other study used a mixed methods approach. Data was collected through interviews and surveys. Data was analysed using phenomenological analysis (Brennan et al., 2021),



descriptive content analysis (Dorsen et al., 2019, or qualitatively rating the data (Barret et al., 2017).

### **Main themes**

Across the 13 articles included in this scoping review, six major themes emerged.

#### *Theme 1: Influence of Set and Setting*

Of the 13 studies, 84.6% reported on the influence of the set and setting. This includes preparation session(s), an intention for the experience, the presence of a facilitator, the space where the dosing session took place, and integration following the dosing session.

Participants and facilitators of PAT reported that the intention that one sets prior to the dosing session has a substantial impact on the overall PAT experience. Additionally, during the dosing session participants noted the importance of ‘surrendering’ to the experience which was often encouraged by the facilitator. By letting go of resistance, participants reported that they were able to experience a sense of catharsis. The importance of a facilitator in this instance was reported in 53.8% of the studies. Participant accounts indicated that the trust and rapport built with their facilitators contributed to a crucial feeling of safety (Belser et al., 2017; Watts et al., 2017; Noorani et al., 2018). Additionally, the setting of the dosing session, specifically the music and the room where the dosing session took place, influenced the experience. Many participants described music as a conveyor of their experience and in some instances, it served as a guide and evoked a range of emotions.

#### *Theme 2: PAT was highly personalised and meaningful*

There were 10 studies in this review that reported that PAT was/can be a highly personalised and meaningful experience. There were a wide variety of experiences reported, with each being unique to the history, personality, and life situation of the participant. Although participants experienced similar outcomes, the way in which they arrived there was distinctive for each person. Participants reported visions of family members or partners, various sensory phenomena, memories from childhood, and varying descriptions of embodiment. Out of the 10 Participant Studies, 90% reported that the PAT experience was meaningful and significant. Similarly, facilitators reported that they aim to create a safe, healing environment where participants can have a meaning-making experience.

#### *Theme 3: PAT can be highly emotive*

PAT was described as a highly emotional experience in 84.6% of the studies. Although the journeys were personalised, there were common emotions that were experienced throughout the studies and participants such as clarity, awe, curiosity, natural wonder, openness, calmness, gratefulness, relief, humility, empowerment, oneness, compassion, love, acceptance, happiness, and forgiveness. Connectedness was one of the most prevalent feelings noted among participants. This included a sense of connectedness to oneself, others, the world, and the universe – which was reported in 90% of the Participant Studies. However, these emotions were typically preceded by intense, overwhelming transient emotions such as confusion, fear, paranoia, anxiety, disorientation, and distress. This initial challenging phase led consistently to moments of acceptance, surrender, and insight. Participants reported a wider range and intensity of emotions during their PAT experience. Moreover, no serious or life-threatening adverse effects were experienced in any of the studies that was enough to question the safety of psilocybin in a controlled setting.

#### *Theme 4: Transcendental experiences*

Mystical, religious, or spiritual experiences were reported in 84.6% of the studies. These were related to transpersonal

experiences, feelings of transcendence, a dissolving of the self, and a connection to greater forces. Of the Participant Studies, 90% reported on spiritual experiences that participants underwent or encountered. The only study that did not mention a transcendental experience focused on the role of music, specifically. The transcendental experiences were noted as profound moments during the dosing session(s) that substantially contributed to their healing. Many participants described a 'spirit guide' that led them through their journey and helped them gain personal insight.

#### *Theme 5: Reduction of symptoms and long-lasting changes*

A consistent theme to emerge from the data was that participants experienced reductions in the symptoms they were being treated for and lasting changes after PAT session(s). The majority of the studies (61.5%) noted that the PAT experience had a positive impact on participants' lives. As mentioned, data was collected between one day after dosing session to 57 months after the dosing session in the Participant Studies. In the Participant Studies that were conducted six months or more after the dosing session, all of them reported long-lasting changes and continued life improvements, healthier relationships with themselves and others, increased spirituality, reduction of unhealthy behaviours, and relief from the disorder that they were treated for. Additionally, they noted an overall improved quality of life.

#### *Theme 6: Boundaries and responsibility*

From the Participant Studies, 70% reported on boundary loss during the psilocybin dosing session. They described episodes of ego dissolution, loss of linear and spatial boundaries, and an expanded awareness. Two of the Facilitator Studies discussed the responsibility of facilitators when guiding a PAT experience. Facilitators noted that this is particularly important when participants are experiencing boundary loss as they have impaired autonomy during a session. Further, this pronounced vulnerability of the participant could lead to ethical challenges for facilitators. One study noted that facilitators are required to help participants navigate through boundary dissolution whilst maintaining professional boundaries. Two of the studies described the importance of facilitator training, supervision, and guidelines for psychedelic psychotherapists.

## **4. Discussion**

This paper is the first to offer a scoping review of the qualitative literature that describes participants' and facilitators' experiences of psilocybin-assisted therapy (PAT). All of the included qualitative studies were published between 2017 and 2021. This suggests that there is a growing interest in PAT and possibly an increasing curiosity into the lived experiences of participants in clinical research. Nine of the included studies (69.2%) were sampled from five clinical trials. These studies explored the effectiveness of PAT in treating several mental disorders such as treatment-resistant depression, alcohol dependence, nicotine dependence, end-of-life anxiety, and post-traumatic stress disorder. There was only one study that took place with healthy volunteers in a retreat setting and only three studies that explored facilitators' experiences of PAT.

Across the Participant Studies, there is evidence that suggests that the subjective experience induced by psilocybin is integral in shaping the therapeutic outcomes. Participants across studies described highly personalised, meaningful, and significant experiences that were elicited by PAT. The evidence indicates that there may be multiple elements working together to produce a therapeutic effect. Based on the themes that were identified, these elements include the set and setting of the journey, an expanded emotional spectrum, and a transcendental experience.

The importance of set (e.g., mind-set, beliefs, attitudes, expectations, intention) and setting (e.g., the physical, social, cultural context, including the facilitator, music, and the structure of the PAT program) have been identified as integral elements of the therapeutic use of psychedelics (Radakovic et al., 2022). The impact of set and setting has been reported in numerous studies, books, and guidelines for psychedelic therapy over the past 50 years (Fadiman, 2011; Grof, 2008; Johnson

et al., 2008). This review highlights how influential the various features of set and setting can be on a participant's experience, which in turn, can influence the therapeutic outcome.

The Participant Studies also highlighted the intensity and spectrum of emotions that PAT can induce. Many participants reported feeling distressed, overwhelmed, and frightened during the initial phase of the dosing session. Swift et al. (2017, p.498) noted that participants "described being taken to the brink of what they felt they could tolerate, and in those peak moments of intensity the experience shifted or found resolution". The results suggest that by surrendering to the challenging emotions, participants may be able to find acceptance and insight. This is reported in other psychedelic research where patients described clarity and calmness following psychological distress during the dosing session (Breeksema 2020; Grof, 2019; Guthrie, 2021). The Participant Studies also described a wide spectrum of positive emotions that were experienced during and after the dosing session. The most consistent emotion described across the studies was a feeling of connectedness. The evidence suggests that this sense of connection plays an important role in an individual's PAT experience as it may encourage relational healing. According to Agin-Liebess et al. (2021), a relational framework, such as attachment theory, may provide assistance in better understanding the dynamics of PAT.

Moreover, a transcendental experience was another significant element of PAT that participants reported in the included studies. Participants described the presence of a "God" or "ancient being" or a "spiritual connection". This contributed to transpersonal insights, as well as increased feelings of love and unity. It appears that the transcendental experience and feeling of connectedness are closely linked. This is in line with prior research that hypothesises that a transcendental experience contributes to positive therapeutic outcomes (Grof, 2019; Lehto et al., 2022). The research suggests that this may be due to increased insights which may facilitate healing (Stokke et al., 2021).

Overall, it appears that the combination of these different elements may contribute to a highly personalised and meaningful experience that is shaped by PAT which, in turn, may lead to a positive therapeutic effect. The evidence in this review suggests that the set and setting, along with an increased emotional range and a transcendental experience that may be induced by psilocybin, could contribute to a rich, significant experience that could foster healing. Moreover, the combination of multiple therapeutic mechanisms may lead to long-term change, therefore an integrative framework might be useful in understanding these different mechanisms as they relate to PAT.

Further, the evidence presented in the Facilitator Studies supports the notion that several elements play a role in the PAT experience and contribute to therapeutic effect. The included studies emphasized the impact of set and setting. Two of the studies highlighted the responsibility that facilitators have when conducting PAT. Due to the vulnerability of the participant during the dosing session, facilitators have more responsibility than during talk therapy. This highlights the importance of a facilitator and the role they play. Participants may experience boundary dissolution and facilitators may be confronted with ethical challenges during the session. According to Brennan et al. (2021, p.6), there is "no legally recognized credentialing system in place for psychedelic guidework" in the USA. In addition, standardised training and supervision is still limited globally, and many psychedelic practitioners conduct journeys underground due to the illegal nature of the work (McCartney et al., 2022). This emphasises the need for more research into facilitators' experiences so that ethical and regulatory guidelines can be established.

## **Limitations**

This scoping review had several limitations. Firstly, the included research in this review had varying differences i.e., differences in the design, qualitative research methodologies, analysis techniques, timing of the interviews, and overall quality. Similarly, the study samples were small and non-generalisable, and the range of mental disorders and treatment contexts varied. Thus, these variations may have impacted the results and decreased comparability. However, the purpose of this review

was to explore and investigate a resurgence of a therapeutic intervention rather than to produce comparative findings or to generalise any significant outcomes. Nevertheless, more studies with larger and more heterogeneous samples are needed to gain a better understanding of PAT.

Secondly, the majority of the included studies formed part of clinical trials. In this sense, the participants' experiences were explored retrospectively. It appears that the experience was secondary to the data gathered through quantitative measures. However, the evidence gathered in this review suggests that it is the overall experience that promotes healing. More studies exploring the participants' subjective experience could be helpful for future research in this area. Overall, this review highlights the significance of the PAT experience and the impact it can have on therapeutic effect.

Thirdly, this review emphasised the scarcity of research on the experiences of PAT facilitators. There were only three Facilitator Studies included, with one focusing solely on the impact of music. This indicates that there is limited information regarding facilitators' experiences. Although there are multiple books about psychedelic psychotherapy practices (Goldsmith, 2010; Fadiman, 2011; Read & Papaspyrou, 2021), there is a gap in peer-reviewed studies. The facilitator can have a substantial impact on participants, specifically during episodes of intense emotions where a sense of safety and guidance may be needed. Given the influence that the facilitator can have on participants, particularly in underground settings, more research is needed to better understand the nuances of the impact of the facilitator, which could assist with the development of standardized ethical guidelines.

## 5. Conclusion

Therapies for mental disorders that involve psychedelics are currently being given renewed attention (Nutt, 2019). However, the mechanisms and therapeutic factors by which these substances contribute to treatment outcomes are still not adequately understood. This scoping review revealed numerous interrelated therapeutic elements that may have contributed to a meaningful experience during PAT. Subsequently, this may play a role in attaining long-lasting positive therapeutic outcomes. Although the studies were varied, there were common elements that stood out as being impactful i.e., set and setting, heightened emotions, and transcendental experiences. Evidently, other studies exploring psychedelic-assisted therapies have found similar results (Breeksema et al., 2020; Wheeler & Dyer, 2020; Ziff et al., 2022).

This review highlights the usefulness of exploring the experiences of participants and facilitators in order to better understand the underlying therapeutic mechanisms and processes of PAT. This can aid in improving treatment protocol, developing ethical guidelines for facilitation, and enhance therapeutic effectiveness. Furthermore, this review highlights the need for more research on the use of PAT in non-clinical settings. Clinical settings may not be viable for some groups of the population, due to barriers to accessing health care, therefore non-clinical settings may be more feasible. Furthermore, the prohibition of psilocybin in most countries may have contributed to increased underground usage by people who are seeking alternative healing methods (Smith & Appelbaum, 2022). Thus, exploring the use of PAT in non-clinical settings can aid in the development of evidence-based practices and standardised ethical guidelines.

It is recommended that future studies explore PAT in non-clinical settings, specifically the experiences of participants and facilitators, in order to improve treatment outcomes and gain a better understanding of the therapeutic mechanisms and processes of PAT.

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