



Therapeutic frameworks in integration sessions in substance-assisted psychotherapy: A systematised review

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Abstract

Serotonergic psychedelics and related substances have been explored as potential adjuncts in substance-assisted psychotherapy (SAPT) for treating various disorders. SAPT can be divided into three phases: preparation, administration and integration. Integration is commonly defined as the comprehension and effective application of insights from psychedelic experiences into everyday life. However, there is limited research regarding the most appropriate therapeutic approach during SAPT. In this article, we discuss the current evidence for different therapeutic frameworks for integration sessions when serotonergic psychedelics and entactogens are used as adjuncts to psychotherapy. We conducted a systematised review of the literature following PRISMA guidelines and searched PsycINFO, MEDLINE and Cochrane Library databases. The final synthesis included 75 clinical trials, mixed-methods investigations, treatment manuals, study protocols, quasi-experiments, qualitative investigations, descriptive studies, opinion papers, reviews, books and book chapters, published until 11 November 2022. The effects that various therapeutic approaches for integration sessions have on therapeutic outcomes have not been investigated by means of rigorous research. Most of the available evidence we retrieved was not supported by empirical data, thus limiting any conclusive statements regarding appropriate therapeutic frameworks for integration sessions for SAPT. Current clinical studies have used a range of therapeutic frameworks with the majority drawing from the humanistic-experiential tradition. While integration is regarded as crucial for the safe application of SAPT, there is currently an insufficient evidence base to suggest that any type of therapy is effective for guiding integration sessions. A systematic investigation of different therapeutic frameworks for integration and additional therapy-related factors is needed.

KEYWORDS

Entactogens, integration, psychedelics, psychotherapy, review

Sascha B. Thal and Paris Baker should be considered joint first author.

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1 | INTRODUCTION

Clinical research into psychedelic drugs began in earnest in the 1950s, but for political, social and legal reasons, this research was prohibited in 1971 (Grinspoon & Bakalar, 1979). Exploration into substance-assisted psychotherapy (SAPT) has since been re-established in the 21st century. Preliminary evidence has shown that as a therapeutic paradigm, SAPT is efficacious and tolerable in treating a range of mental health problems including substance use disorders, post-traumatic stress disorder, depressive disorders, illness-related anxiety and depressive disorders and obsessive-compulsive disorder (Andersen et al., 2021; Mitchell et al., 2021). Despite this promising resurgence in modern trials, knowledge regarding specific mechanisms responsible for therapeutic change is still sparse (Else, 2017; Thal et al., 2021).

SAPT generally comprises psychological support in combination with dosing sessions that involve the ingestion of psychoactive substances in a controlled setting with trained clinicians present. Less commonly, different models of conventional psychotherapy may serve as a foundation for the therapeutic process in SAPT (see Thal et al., 2021, 2023). The process involves various non-pharmacological components, such as screening/assessment and preparation sessions, which are thought to be important for both the safety and efficacy of this treatment (Thal et al., 2022). These aspects usually require the active participation of both therapist and client, thereby expanding the conceptual understanding of SAPT from “drug efficacy” to “experience efficacy” (Schenberg, 2018). However, it has recently been argued that the psychological support provided alongside the administration of psychoactive substances is not synonymous with psychotherapy and that the observed effects in recent clinical trials should rather be attributed to the substance itself (Goodwin et al., 2023). Indeed, the effectiveness of therapeutic practices in combination with psychoactive substances has not been systematically investigated and remains tentative (Thal et al., 2023).

SAPT can be broken into three distinct phases: preparation, administration and integration (Van Rhijn, 1967). The preparation component comprises general screening and assessment for medical and/or psychological contraindications. If deemed eligible, participants will then engage in the preparatory phase. This phase includes administration of baseline outcome measures, establishment of a therapeutic alliance, provision of relevant psychoeducation, grounding techniques, safety measures and setting an ‘intention’—or goal(s)—for therapy (see Thal et al., 2022).

Once preparation is complete, participants will typically have their first administration session. Psychoactive substances are used in one or more sessions, which are guided by one or two therapists co-facilitating (Thal et al., 2023). Subsequent sessions without the assistance of substances are usually incorporated after the first administration session (Bogenschutz, 2013; Grof, 1980). Following on from an administration session, ‘integration’ is the process by which participants and their therapist(s) undergo debriefing and sense-making of their dosing experience. It is this stage that is the focus of our review.

Key Practitioner Message

- Existing research studies have employed diverse therapeutic approaches to facilitate integration sessions, predominantly rooted in the humanistic-experiential tradition
- While integration is repeatedly regarded as crucial for the safe application of SAPT, the current body of evidence is insufficient to establish the efficacy of any specific therapy in guiding integration sessions
- This knowledge gap should be addressed by undertaking a comprehensive examination of various therapeutic frameworks for integration, alongside other pertinent therapy-related variables

Integration is commonly defined as a process supporting the elevated comprehension of the psychedelic experience and the effective application of the insights and lessons gained from it in day-to-day existence (Aixalà, 2022). While revelatory psychedelic experiences are transitory, it is thought that the desired therapeutic effects can be sustained when SAPT patients are supported by their therapists to discuss and unfurl these experiences. Integration may thus be considered an essential and ongoing process that is paramount to therapeutic change in SAPT (Earleywine et al., 2022; Mithoefer, 2017). It is thought that it is the meaning-making of the substance-assisted session that translates the acute effects into daily life. Specifically, integration may facilitate continued emotional and cognitive processing of the substance-induced experience, allowing the client to develop and increase the malleability of their self-narrative, including their understanding of the self, others and the world, as well as any trauma history (McMillan & Jordens, 2022; Walsh & Thiessen, 2018). However, the absence of guidance and models has resulted in a wide array of integrative practices, including self-reflection and meaning-making related to the psychedelic experience, being adopted without a clear understanding of their efficacy and relevance. Despite being considered crucial for optimising the benefits of psychedelic experiences and the safety of study participants (Bathje et al., 2022; Cavarra et al., 2022), integration practices have not been systematically investigated. Furthermore, there is an ongoing discussion about whether the subjective effects of psychedelics are essential for their lasting therapeutic effectiveness (see Olson, 2021; Yaden & Griffiths, 2021).

In modern clinical studies integration usually includes a debriefing process. This could be the subsequent session, sometimes a few hours or days post-drug experience. The session may involve a general discussion of the administration session's content. Additional integration sessions may build on this and then link the content to behaviour changes in real life. These sessions are viewed as crucial to the process of self-reflection, assisting clients to explore and make meaning of the drug experience (Bogenschutz & Forchimes, 2017). While an open-ended discussion (sometimes referred to as the “supportive model”) is frequently suggested as an appropriate format, guidelines

and treatment methodologies using evidence-based models for specific disorders are only beginning to emerge (Sloshower et al., 2020; Watts, 2021).

Despite the importance of coherent and standardised integration, clinical and experimental research regarding therapeutic conduct in integration sessions is rare (Goodwin et al., 2023). Due to the apparent scarcity of published literature, we conducted an extensive review of the literature on various psychotherapeutic paradigms that have been or may be used to inform integration in SAPT. Accordingly, the purpose of this systematised review is to identify what evidence currently exists to inform the development of best practice models for clinicians, with a specific focus on integration. This includes a general overview, analysis and discussion of different therapeutic models that are currently recommended for the integration of psychedelic experiences in clinical contexts. Specifically, we investigated whether any current therapeutic framework or protocol has a robust or emerging evidence base for guiding integration.

2 | METHODS

We followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021) to conduct a systematised review of the literature (Grant & Booth, 2009). Although the reviewed literature reported quantitative data, the study designs and intervention types were heterogeneous overall. For this reason, it was not possible to include a meta-analysis as part of this study.

2.1 | Information sources and search strategy

Two systematic searches were conducted within three scientific databases (PsycINFO, PubMed and Cochrane) dating from their inception to 11 November 2022. Information for the specific search strings and search results for the searches can be found on the project's *Open Science Framework* (OSF) page (<https://osf.io/5ysmq/>). Results of initial searches were supplemented by scanning the references of retrieved articles and consulting with experts in the field. Eventually, the literature was imported into *EndNote 20*.

2.2 | Inclusion and exclusion criteria

The inclusion criteria were purposely broad as the relevant literature is limited. Studies included met the following criteria: (1) The paper assessed or contributed to or considered the assessment of the effects of a serotonergic psychedelic-substance or MDMA in the treatment of psychological distress and/or clinical disorders, (2) the paper assessed the application and/or efficacy of psychedelic-assisted psychotherapy and (3) the paper described the methods used for integration. We excluded studies if they met the following criteria: (1) They involved in vitro research, (2) they involved animal research,

(3) they reported indigenous and ritualistic substance use, (4) the administered doses were sub-perceptual (sometimes referred to as 'microdosing'), (5) they primarily discussed the use of a combination of two or more psychoactive substances, (6) the full text was unavailable via institutional access or through direct correspondence with the authors and (7) they were written in any language other than English or German. Accordingly, we included clinical trials and follow-ups, treatment manuals, study protocols, case studies, qualitative studies, descriptive studies, theoretical papers, reviews, book chapters and books in the review. Finally, although the present review focused on substance-assisted individual therapy, relevant and applicable findings from papers referencing substance-assisted group therapy were included.

2.3 | Selection process

For the initial search on 1 February 2022, two independent reviewers (ST and MW) screened the retrieved literature. First, the title and abstract screening was conducted with good interrater reliability ($\kappa = 0.78$; Cicchetti & Sparrow, 1981). The subsequent full-text review reached excellent interrater reliability ($\kappa = 0.86$). A second search was conducted on 11 November 2022. The search string was slightly refined. Two independent reviewers (ST and JM) conducted the title and abstract screening with good interrater reliability ($\kappa = 0.80$). The full-text review reached fair interrater reliability ($\kappa = 0.56$). If consensus was not reached in either search, the paper was discussed to determine suitability; if an agreement was still not met, the discrepancy was reviewed by the other authors to determine inclusion.

2.4 | Data collection and analysis

Data from eligible sources including details on the clinical target, study therapeutic framework, substance(s) used, number of participants, number of sessions and information about the therapeutic conduct in integration sessions were extracted and recorded. In subsequent sections, we synthesised information pertinent to different therapeutic approaches in integration sessions that are currently practised in or being promoted for clinical studies on SAPT. Finally, we discuss the implications of these findings and future directions for research.

3 | RESULTS

The initial search yielded a total of 6619 articles. In addition, 32 records were identified through secondary sources. A total of 447 duplicates were removed using the *EndNote 20* software. Title and abstract screening was conducted for the remaining 6172 articles resulting in 5948 exclusions. A total of 255 additional full-text publications were identified for full-text analysis by two independent reviewers (ST and MW) and 57 articles and book chapters were

included. The second search retrieved 8082 articles. A total of 745 duplicates were removed using *EndNote 20* software. After screening the titles and abstracts of the remaining 7341 articles, 7308 sources were excluded and 33 additional articles were considered for full-text analysis by two independent reviewers (ST and JM). After the full-text analysis, 18 additional sources were included with the result that 75 sources were included in the final version of the paper (see Figure 1).

3.1 | Characteristics of the included studies

The details of all included sources can be found in Appendix A. The final qualitative synthesis ($k = 75$) included 29 clinical trials ($N = 1018$), two mixed-methods investigations, six treatment manuals, four study protocols, one quasi-experiment, three qualitative investigations, one descriptive study, 19 opinion papers, seven reviews, two books and one book chapter.

3.2 | General definition(s) of integration

While difficult to determine when the concept of integration was first introduced, some studies from the initial wave of psychedelic research designated time toward integrating administration sessions (e.g., MacLean et al., 1961; Pahnke et al., 1970; Savage & McCabe, 1973). Earleywine et al. (2022) suggest the following definition of integration based on interviews with 30 integration therapists:

'[Integration is] a bridge from the psychedelic experience to everyday life that helps clients make sense of their experience in a personalized way, leading to lasting behavior change and a sense of wholeness or completion' (p. 6).

We identified two kinds of integration in the literature we reviewed: Integration related to SAPT in clinical settings (Mithoefer, 2017; Slosower et al., 2020; Watts, 2021) and integration in harm reduction contexts (Gorman et al., 2021; Pilecki et al., 2021; Wolfson, 2022), where clients may have taken psychoactive substances by themselves or in underground therapy settings and wish to integrate their experiences in psychotherapy. Aixalà (2022) has recently offered a distinction between integration and psychotherapy, wherein integration is limited to the client regaining control and deepening their understanding of their psychedelic experience. Consequently, integration ends once this goal has been achieved. In Aixalà's distinction, psychotherapy is a more open-ended process during which additional goals may be identified and perused.

In clinical studies, the integration process often begins with an initial 90–120-min session the morning after administration, with structure, content and timing adapted to the client's needs (Bogenschutz & Forchimes, 2017; Garcia-Romeu & Richards, 2018). More generally, this timeframe allows integration to begin during a state of psychedelic afterglow (Majić et al., 2015), which, based on anecdotal evidence, may be marked by relative freedom from anxiety, guilt and concerns, as well as increased positive mood and relational closeness. This psychedelic afterglow may last between 2 and 4 weeks and can provide a period where experiential processing and

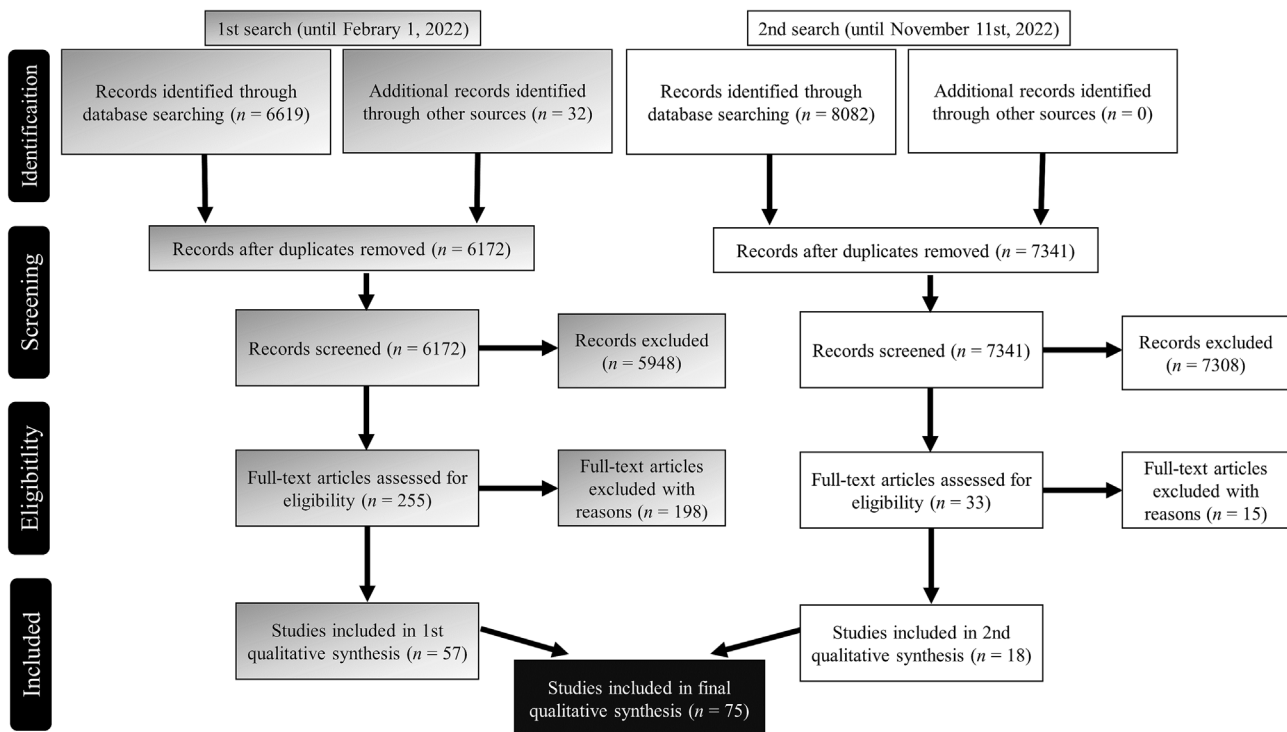


FIGURE 1 Visualisation of the literature search.

therapeutic efficacy could be enhanced (Grof, 1980; Watts & Luoma, 2020). This theoretical afterglow is, however, not purported to occur for non-classic psychedelic substances such as 3–4 methylenedioxymethamphetamine (MDMA). The psychological mechanism of action, while disputed, is thought to be connected to social reward learning attached to increased neuroplasticity effects (Lepow et al., 2021). The integration process is not usually restricted to the first therapy session after the experience but may stretch over several consecutive sessions (Sloshower et al., 2020; Watts, 2021). During that time, the content of the session and the potential meaning that can be derived from the participants' non-ordinary state may be further and more deeply explored. This process may include novel insights regarding previous symptoms, new intentions and approaches to cope with the symptoms and behavioural and cognitive changes to improve coping with the symptoms (Bogenschutz & Forcehimes, 2017; Mithoefer, 2017).

Integration sessions often consist of a non-directive and open-ended discussion of the experience, in which therapists take a supportive and validating stance (Greer & Tolbert, 1998; Mithoefer, 2017). The client may give a complete and detailed account of their experience from the session and attempt an interpretation of its content in collaboration with the therapist. The client may be invited to describe the positive and negative effects of the experience that persist and reflect on its significance. This component also involves an exploration of past narratives and the development of new insights and perspectives relating to patterns of thought and emotion, habitual reactions, relationships to self and others and trauma memories (Bogenschutz & Forcehimes, 2017; Garcia-Romeu & Richards, 2018; Nielson et al., 2018).

3.3 | Therapeutic frameworks for integration— General introduction

While the general principle of integration is to make meaning of the psychedelic experience in addition to implementing behavioural changes that support overall participant well-being, particular theoretical frameworks may emphasise different aspects of the experience to achieve the desired clinical change. Third-wave behaviour therapies (TWBT; e.g., dialectical behaviour therapy, acceptance and commitment therapy [ACT] and mindfulness-based cognitive therapy) are presented as consistent adjuncts to SAPT (Walsh & Thiessen, 2018) by some authors due to shared potential mechanisms of action (e.g., a state of mindfulness; Smigielski et al., 2019) and similarity of clinical targets (such as substance use disorders and mood disorders). Various other forms of therapy have been proposed to be effective adjunct treatments (see Appendix B), which likely rely upon theoretical synergism with the pharmacologic treatment to produce desired therapeutic outcomes (Sloshower et al., 2020). In reviewing this body of literature, it is evident that there is a paucity of concrete methodologies, with a disparate sense of direction and rationale. We begin to examine and synthesise these frameworks by separating out those that have been used in controlled trials and those that are theoretical.

3.4 | Substances, clinical syndromes and therapeutic frameworks for integration across clinical studies

We identified 29 clinical studies in our search that administered Ayahuasca, N,N-dimethyltryptamine (DMT), Lysergic acid diethylamide (LSD), MDMA and psilocybin to clinical samples (see Table 1). Remarkably, more than half of the participants in the included clinical trials were administered psilocybin and more than a quarter of the participants were administered MDMA.

Conditions investigated included alcohol use disorder (AUD), anxiety with and without a life-threatening illness, distress, depression and grief in long-term AIDS survivors, smoking cessation, OCD, social fear and anxiety associated with autism, (treatment-resistant/severe) major depressive disorder (MDD) and (treatment-resistant/severe) post-traumatic stress disorder (PTSD) (see Table 1). Evidently, AUD ($k = 4$, $N = 193$), MDD ($k = 7$, $N = 387$) and PTSD ($k = 8$, $N = 220$) are by far the most researched disorders in the SAPT studies that we have included. Only one study from the first wave of psychedelic research was included (Savage & McCabe, 1973; $N = 74$), which targeted AUD, yet accounted for more than one third of the AUD participants in our review.

The number of integration sessions varied between one and four sessions ($Mdn = 2$) per administration session in most studies with Anderson et al. (2020) and Monson et al. (2020) being outliers conducting five to seven integration sessions for each administration session. Interestingly, one study (Sanches et al., 2016) did not conduct any integration session(s) after the administration of Ayahuasca (see Table 1).

We classified the types of therapeutic frameworks that were used within the broad schools of humanistic–experiential, cognitive–behavioural, mindfulness and acceptance-based and psychodynamic treatments following recent common taxonomies (e.g., Barkham et al., 2021; Boswell et al., 2010; Messer & Kaslow, 2019). The data showed a predominance of humanistic–experiential therapies (nine studies, 31.0%). The other orientations included cognitive–behavioural (three studies or 10.3%), mindfulness and acceptance-based (two studies or 7%), eclectic/mixed orientations (two studies or 7%) and a further 13 studies (44.8%) that could not be clearly identified. Most of the frameworks in this class were described as non-directive and supportive but were rather generic. They usually aimed to provide safety and clear guidelines to help clients navigate the psychedelic experience. While the scope and intensity of integration sessions vary across trials in which therapeutic frameworks could not be clearly identified (see Table 1), the therapist(s) flexibility in responding to the client's needs is usually emphasised. Therapist(s) may empathically attune to, reflect and validate the participant's experience to facilitate the participant's exploration of potential insights or only offer support in situations where participants may experience severe distress and/or adverse effects. A psychodynamic orientation could not be identified in any study (see Table 1).

By far the most common psychotherapy within the MDMA-assisted clinical trials was a humanistic–experiential framework

TABLE 1 Overview of clinical trials.

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Humanistic experiential therapies								
Anderson et al. (2020)	Distress, depression, grief (long-term AIDS survivors)	Open-label mixed-methods pilot study	Brief supportive expressive group therapy	Psilocybin	18	5	1	5-7
Bogenschutz et al. (2015)	AUD	Single-group proof-of-concept study	MET	Psilocybin	10	1st session: 0.3 mg/kg, 2nd session: 0.4 mg/kg	1-2	1-2
Jardim et al. (2021)	PTSD	Open-label pilot study	According to Mithoefer et al. (2015)	MDMA	3	3	3	9 (3 after each administration session)
Mitchell et al. (2021)	Severe PTSD	Randomised, double-blind, placebo-controlled phase 3 study	According to Mithoefer (2017)	MDMA	90	3	3	9
Mithoefer et al. (2011)	Treatment-resistant PTSD	Blinded, placebo-controlled study	According to Mithoefer (2017)	MDMA	20	2	2	8
Mithoefer et al. (2018)	PTSD	Randomised, double-blind, dose-response, phase 2 trial	According to Mithoefer (2017)	MDMA	26	3	3-5	6
Oehen et al. (2013)	Treatment-resistant PTSD	Double-blind, active placebo RCT	According to Mithoefer (2011)	MDMA	12	2	3	9
Ot'alora et al. (2018)	Treatment-resistant PTSD	Randomised double-blind dose-response comparison	According to Mithoefer (2017)	MDMA	28	3	2	6
Wolfson et al. (2020)	Anxiety associated with life-threatening diseases	Phase 2 double-blind, placebo-controlled RCT with an open-label crossover	According to Wolfson and Mithoefer (2015); non-directive/supportive	MDMA	18	3	2	6
Cognitive-behavioural therapies								
Bogenschutz et al. (2022)	AUD	Double-blind randomised clinical trial	Motivational Enhancement and Taking Action (META = CBT + MET) according to Bogenschutz and Forcehimes (2017). This primary draws on a CBT framework incorporating MI components	Psilocybin	95	4	2	8 (4 after each administration session)

TABLE 1 (Continued)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Johnson et al. (2014)	Smoking cessation	Open-label pilot study	CBT	Psilocybin	15	4	2-3	2-3
Monson et al. (2020)	PTSD	Uncontrolled trial	Cognitive-behavioural conjoint therapy	MDMA	12	3	2	10
Mindfulness and acceptance-based therapies								
Carhart-Harris et al. (2021)	MDD	Double-blind randomised and placebo-controlled trial	Accept connect embody model	Psilocybin	59	2	2	6
Danforth et al. (2018)	Social fear and anxiety in autism	Blinded, placebo-controlled pilot study	Mindfulness-based therapy adapted from dialectical Behavioural therapy	MDMA	12	3	2	6
Eclectic/mixed therapies								
Goodwin et al. (2022)	MDD	Double-blind, dose-finding, parallel-group, randomised clinical trial	Perceptual control theory/method of levels. Also includes elements from cognitive-behavioural therapy + mindfulness-based therapy + acceptance and commitment therapy + focusing, according to Tai et al. (2021). The suggested mechanism of 'experiential processing' here, is also the focus of humanistic-experiential therapies.	Psilocybin	233	≥3	1	2
Sessa et al. (2021)	AUD post-detoxification	Open-label safety and tolerability proof-of-concept study	Motivational interviewing and third-wave cognitive-behavioural approaches	MDMA	14	6	2	2
No clearly identifiable therapies								
Bouso et al. (2008)	PTSD	Double-blind, ascending-dose study, randomised and placebo-controlled within each dose condition	Generic therapeutic model (similar to Greer & Tolbert, 1998)	MDMA	29	3	1	3

(Continues)

TABLE 1 (Continued)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Carhart-Harris et al. (2016)	Treatment-resistant MDD	Open-label, single-arm pilot study	Generic therapeutic model	Psilocybin	12	1	2	3
Davis et al. (2021)	MDD	Waiting list RCT	According to Johnson et al. (2008)	Psilocybin	27	8 h (≥ 2 sessions)	2	5
D'Souza et al. (2022)	MDD	Open-label, fixed-order, dose-escalation exploratory study	None/support during experience if needed	DMT	10	1	1	1
Gasser et al. (2015)	Anxiety associated with life-threatening diseases	Double-blind, randomised, active placebo-controlled pilot study	Continuous process lasting several months; not specified	LSD	12	2	2	3
Griffiths et al. (2016)	Anxiety and depression in life-threatening cancer patients	Randomised double-blind cross-over trial	According to Johnson et al. (2008)	Psilocybin	51	≥ 2	2	≥ 4 (≥ 2 after each administration session)
Grob et al. (2011)	Advanced cancer and reactive anxiety	Double-blind, placebo-controlled study	None/support during experience if needed	Psilocybin	12	1	1	1
Holze et al. (2022)	Anxiety with and without a life-threatening illness	Double-blind, placebo-controlled, 2-period, random-order, crossover	Psychoanalytic therapy: Therapists involved have various backgrounds, and clients were allowed to be in ongoing psychotherapy outside of the study	LSD	42	1	2	4
Moreno et al. (2006)	OCD	Double-blind proof-of-concept study phase I	None/support during experience if needed	Psilocybin	9	N/A	1–4	N/A
Palhano-Fontes et al. (2019)	Treatment-resistant MDD	Parallel-arm, double-blind placebo RCT	Not specified	Ayahuasca	29	0	1	1
Ross et al. (2016)	Anxiety and depression in cancer patients	Double-blind, placebo-controlled, crossover trial	Generic therapeutic model/elements of logotherapy	Psilocybin	29	3	2	6
Sanchez et al. (2016)	MDD	Open-label trial	Generic therapeutic model	Ayahuasca	17	0	1	0

TABLE 1 (Continued)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Savage and McCabe (1973)	AUD	Randomised-controlled trial & case reports	NR	LSD	74	24 h in 5 weeks	1	1 week

Notes: AUD, alcohol use disorder; CBT, cognitive-behavioural therapy; DMT, N,N-dimethyltryptamine; LSD, lysergic acid diethylamide; MDD, major depressive disorder; MDMA, methylenedioxymethamphetamine; MET, motivational enhancement therapy; N/A, not applicable; NR, not reported; OCD, obsessive-compulsive disorder; PTSD, posttraumatic stress disorder; RCT, randomised controlled trial.

developed by Michael Mithoefer (2011) and Wolfson and Mithoefer (2015). Two studies (Davis et al., 2021; Griffiths et al., 2016) did not describe the therapeutic framework that was applied but simply referred to the popular safety guidelines by Johnson et al. (2008), which do not outline a particular framework for therapy. One study (Gasser et al., 2015) embedded LSD-assisted therapy sessions within a continuous psychotherapeutic framework that lasted several months but was not described in detail. The only study we included that was conducted in the first wave of psychedelic research (Savage & McCabe, 1973) did not report the psychotherapeutic framework that they used but embedded LSD-assisted psychotherapy sessions in an inpatient AUD treatment program. It is noteworthy, that more than a third of the studies either used non-directive support, which may or may not have included psychotherapeutic elements, or did not offer any details regarding psychotherapeutic frameworks used during treatment. This limits the comparability of findings. The only studies that offered enough information to compare the effects of two different frameworks used with the same substance for the same condition were: (i) Bogenschutz et al. (2015) using psilocybin within a MET (motivational enhancement therapy) framework for AUD (one or two administration and one or two integration sessions) versus Bogenschutz et al. (2022) using psilocybin within a META (motivational enhancement and taking action) framework (see Bogenschutz & Forchimes, 2017; two administration and eight integration sessions) for AUD and (ii) Carhart-Harris et al. (2021) using psilocybin within an ACE framework for MDD (two administration and six integration sessions) versus Goodwin et al. (2022) using psilocybin within a framework dominated by third-wave CBT methods (see Tai et al., 2021; one administration and two integration sessions). However, the sample size for Bogenschutz et al. (2015) is too small to warrant meaningful comparison, and both studies (Bogenschutz et al., 2015, 2022) were conducted by the same group of researchers. The MDD studies used different instruments for outcome measures and thus cannot be compared.

3.5 | Therapeutic frameworks for integration from qualitative sources

We identified 44 qualitative sources (see Appendix B) that offered information about different therapeutic frameworks that are used in current studies or may be used in future clinical investigations and/or clinical applications of SAPT. Again, we classified the types of therapeutic frameworks that were used within the broad schools of humanistic-experiential, cognitive-behavioural, mindfulness and acceptance-based and psychodynamic treatments following recent common taxonomies and described the results below.

3.5.1 | Humanistic-experiential therapies

We defined humanistic-experiential therapies as those in which the central elements of the therapy were described as using *empathy* and

aimed at facilitating clients' in-moment *experiencing* (following Elliott et al., 2021). These typically include sub-modalities of client-centred therapy, gestalt, emotion-focused therapy (EFT) and motivational interviewing (MI). These therapies are client-centred, in that they emphasise following the client's own unfolding experiential process. This is seen as useful in the context of an integration session, where the ingested substance has facilitated the emergence of experiential content, which is the relevant material for the person to process (e.g., Mithoefer, 2017).

Motivational interventions

Bogenschutz and Forcehimes (2017) have discussed the implementation of a disorder-specific treatment model for psilocybin-assisted therapy for AUD. Their treatment details integrated elements of MET into the existing structure of SAPT (i.e., throughout preparation, administration and integration). MET has previously been demonstrated to be an effective treatment for AUD, with a systematic review of 361 controlled studies finding that MET was the second most efficacious psychological treatment of AUD (Miller & Wilbourne, 2002). Using MET as a framework, Bogenschutz and Forcehimes argue that intentions and expectancies may be central predictors of therapeutic outcomes. Accordingly, MET may enhance clients' motivation for positive change through the elicitation and clarification of intrinsic motivation for change (Bogenschutz & Forcehimes, 2017). In their manual, Bogenschutz and Forcehimes included certain cognitive-behavioural strategies designed specifically for change in the therapy program and as such refer to this as motivational enhancement therapy and taking action. Although goals for change and core values are established during the preparation phase, this aspect of therapy is considered integral to the development of a treatment plan for integration. During integration, therapists and the client discuss how the dosing session influenced their relationship with alcohol and their desire to change their drinking behaviour (Bogenschutz et al., 2015, 2022; Sessa et al., 2021). Within this framework, integration begins 8 h after dosing, as participants are asked to write down an account of the experience to discuss in subsequent sessions. The basic content includes open-ended inquiry concerning administration. Participants are invited to consider the meaning and implications of the experience. By doing so, therapists may elicit a discussion of how the session has affected the participant's relationship with alcohol. SAPT/MET was also proposed to be used flexibly in other similar studies such as that of Jensen et al. (2022), whereby MI was used in combination with ACT in the treatment of AUD. Similarly, Spriggs et al. (2021) treatment protocol promotes and incorporates the use of MI, ACT, cognitive-behavioural therapy (CBT) and EFT in the treatment of anorexia nervosa (AN). Simultaneously, MDMA-assisted psychotherapy using MET as a framework in the treatment of AUD has similarly been argued as a combination treatment in approaching and processing the often-comorbid early traumatic experiences associated with AUD (Sessa, 2018), with significant tolerability and effectiveness in reduced avoidance and memories of alcohol misuse reported (Sessa et al., 2021).

Emotionally focused couples therapy

Emotionally focused couples therapy (EFCT) is a brief structured psychotherapeutic approach that focuses on the role of emotional communication in close relationships. It emphasises that a strong therapeutic relationship is essential in facilitating the ongoing therapeutic process (Greenberg & Johnson, 1988). In a meta-analysis of 20 studies detailing the efficacy of EFT, Spengler et al. (2022) found that EFT was an effective, evidence-based treatment for presenting concerns such as depression, sexual dissatisfaction and PTSD. This analysis found a weighted random effect of $d = 0.93$ with a 95% confidence interval, reflecting a large treatment effect. Consequently, EFT has been proposed by Almond and Allan (2019) to be an effective therapeutic framework to be combined with MDMA in the treatment of PTSD, whereby at least one of the participants within the dyadic relationship has endured a traumatic experience. The EFT model postulates that the regulation of affect (i.e., containing anger and working with fear) results in the creation of moments in which vulnerabilities are shared in contexts that allow for safe interpersonal connections to attain a corrective experience and the integration of the revised view of the self and others. Consequentially, the couples' understanding and empathy for each other may deepen, creating a more intimate, meaningful and safer connection between two individuals. However, no current clinical trial using EFT in combination with SAPT has been published to date.

Psychedelic supportive psychotherapy and psychedelic harm reduction integration

Psychedelic supportive psychotherapy (PSP) in combination with Psychedelic Harm Reduction Integration (PHRI) is a psychedelic integration framework, which Wolfson (2022) has claimed to be ready for implementation by qualified practitioners to work adjacently to a psychedelic dosing experience without compromising ethical or legal risks. PSP builds upon the PHRI harm reductionist methods outlined by Gorman et al. (2021) by supporting exploration and developing a deeper understanding of patients who choose to engage with psychedelic substances without overtly encouraging illegal practice. PSP does not provide a specific modality that therapists are required to follow during integration sessions; however, the author suggests that the therapist should not be married to any one theory (Wolfson, 2022). Although PSP does not supply a treatment manual and describes their approach as largely non-directive, it does suggest synergistic overlap with Internal Family Systems, ACT and the ACE model described in Watts and Luoma (2020). According to the author, PSP and PHRI are optimally delivered with a wide range of modalities dependent upon the therapist's assessment of what will best support the participant's unique needs and goals (Wolfson, 2022).

Brief supportive-expressive group therapy

Brief supportive-expressive group therapy (SEGT) was originally developed as a palliative care-focused existential psychotherapy that places primary importance on momentary awareness and emotional expression (Yalom & Greaves, 1977). Demonstrating efficacy in the treatment of anxiety within oncology patients, Spiegel et al. (1999) found a 40%

reduction in total mood disturbance (TMD) scores in a trial of 111 breast cancer patients. Each patient engaged in 12 weeks of 90-min manualised supportive group therapy sessions. SEGT has since been adapted by Anderson et al. (2020), given the reported synergies with SAPT by way of its recognition and promotion of emotional expression and the examination of existential concerns (Classen et al., 2008). Anderson et al. (2020) tested these theories by applying SEGT as the framework for the psilocybin-assisted treatment of demoralisation in older long-term AIDS survivors and SEGT was found to promote spiritual well-being, reduce hopelessness and decrease core symptoms of depression when compared to an active control group. Integration was completed via a two-hour individual psychotherapy session occurring the day following the dosing visit. During this session participants discussed their psilocybin experience with at least one of the clinicians who worked with them the day before, reviewing the content of the experience and attempting to generate meaning from the experience to apply to their day-to-day lives (Anderson et al., 2020).

3.5.2 | CBTs

We use the term CBT broadly to describe behavioural therapy, cognitive therapy and cognitive behavioural therapy, that is first- and second-wave therapies. Ergo, cognitive behavioural therapies are those focusing on maintaining factors of psychological problems instead of their aetiology (following Barkham et al., 2021). Compared to other therapies, CBTs are more directive resulting in a more didactic therapeutic relationship. Symptom relief may be achieved through understanding and challenging faulty or unhelpful ways of thinking and learned patterns of unhelpful behaviour. Therapists may actively transfer skills and coping strategies to clients.

CBT may be used as a framework to consolidate alternate views and perspectives gleaned during the administration phase of SAPT (Walsh & Thiessen, 2018). A review of 269 meta-analyses concluded that CBT was the most widely studied form of psychotherapy and had been identified as the frontline treatment for a variety of psychological problems (Hofmann et al., 2012). CBT is purported to use its various and well-established tools to analyse, question and evaluate unhelpful beliefs, with the aim of changing existing patterns of limited thinking. Reasoning, disputation, objective questioning and evaluating evidence, are suggested to encourage broader examination of a person's beliefs and perspectives (Wolff et al., 2020). Although perspective shifting within the context of SAPT may arise from an altered state of consciousness, the types of cognitive changes achieved may be similar (Johnson et al., 2014; Wolff et al., 2020). Accordingly, CBT as a framework for SAPT has been claimed to be an appropriate guide to consolidate alternate perspectives during the integration phase of SAPT by providing a relevant framework for which clients can understand substance-induced cognitive changes in their everyday lives (Wolff et al., 2020). More to this, Wolff et al. (2020) have suggested that they see the potential for SAPT to enhance the efficacy of CBT due to a possible increased state of neuroplasticity, aiding client openness to such cognitive change.

While there is currently very little systematic research demonstrating CBT as an effective framework for integration, several pilot trials and case studies have been published: In specific cases, such as those who suffer from post-traumatic stress disorder, (PTSD) research suggests that cognitive-behavioural couples-assisted therapy (CBCT) or 'conjoined' therapy may work twice as well as more traditional exposure-only CBT (Monson et al., 2020). By experiencing and integrating SAPT with a close member of a participant's known community (e.g., a partner or spouse), CBCT has been demonstrated to allow for not only a reduction in PTSD symptoms but also improve relationship satisfaction and serve to habituate continued integration and meaning making well after the therapeutic process has ended (Wagner et al., 2019).

3.5.3 | Mindfulness and acceptance-based therapies

We defined mindfulness and acceptance-based therapies (also known as third-wave behavioural treatments) as those blending cognitive-behavioural approaches with mindfulness and psychological acceptance (following Barkham et al., 2021). Compared to CBT, strategies aimed at directly changing internal experiences are trivialised in mindfulness and acceptance-based therapies. Rather, they promote a cohesive repertoire of strategies to apply adaptive behaviours and skillful responses in the context of challenging internal experiences.

3.5.4 | ACT

It has been proposed that ACT may also have some overlap of treatment mechanisms with SAPT, making it a framework that several researchers claim to be a viable treatment modality to combine with SAPT (Sloshower et al., 2020; Whitfield, 2021; Wolff et al., 2020; Yaden et al., 2022). With roots in traditional CBT, mindfulness and Buddhist philosophy (Hayes, 2002), ACT has been demonstrated to be an effective treatment in a handful of mental health conditions, with several studies purporting it may be equally effective as traditional CBT in the treatment of depression (Sloshower et al., 2020). Researchers such as Sloshower et al. (2020) offer a rationale for their selection of ACT as an adjunct to psilocybin-assisted psychotherapy due to its capacity to interrupt deep-seated pathological patterns of thought and behaviour. In both this and a more formative 2012 study, ACT was identified to pair with SAPT due to its core elements relating to psychological flexibility, a process that has demonstrated importance within the presentation of depression and a range of other mental health conditions (Masuda & Tully, 2012). This construct is made up of several sub-processes, including present-moment awareness, acceptance of thoughts, non-judgement of self, self-transcendence, the exploration of personal values and values-based action (Bramwell & Richardson, 2018). SAPT and ACT are largely considered symbiotic as each requires active participation from clients and encourages a reduction in avoidance-based behaviours

(i.e., experiencing discomfort and unpleasant thoughts and emotions without judgement and attachment (refer to Slosower et al., 2020, for a comprehensive rationale). Although, it is worth noting that while there is a comprehensive manual for psilocybin-assisted therapy of depression using ACT as a therapeutic framework (Slosower et al., 2020), no clinical study testing this model has been published at the time of our search.

An offshoot of ACT, Watts and Luoma (2020) describe a model that aims to enhance this concept of psychological flexibility within their Accept Connect Embody (ACE) model. The ACE model (Watts, 2021) has been implemented and tested in a trial for treatment-resistant depression (Carhart-Harris et al., 2021). Qualitative data articulates the synergy between the ACE model and the psychedelic experience, particularly regarding the therapeutic effect (Watts & Luoma, 2020). This idea is further emphasised with reference to the entropic brain theory (Carhart-Harris, 2018; Carhart-Harris et al., 2014) and REBUS (Relaxed Beliefs Under Psychedelics) model (Carhart-Harris & Friston, 2019), suggesting the effects of psilocybin create a flexible brain state. This state allows for a freer transition between cognitive states, increasing psychological flexibility and the likelihood of acute and long-lasting perspective shifts. Connection with new perspectives may be sustained through acceptance-focused work during the integration phase whereby clients can learn to engage with their present experience, particularly when facing discomfort and challenges (Watts, 2021; Watts & Luoma, 2020). While the ACE model is not entirely non-directive, it emphasises the importance for therapists to utilise treatment guidelines with fluidity and responsiveness, rather than rigidly implementing session outlines. Specifically, Watts and Luoma (2020) intend for the ACE model to fit into each client's 'therapeutic process' to not be experienced as formulaic.

3.5.5 | Mindfulness-based therapy adapted from dialectical behavioural therapy

Dialectical behavioural therapy (DBT) as a complete therapeutic modality within the scope of SAPT is yet to be published. However, Danforth et al. (2018) adapted the mindfulness-based aspects of DBT within their study using MDMA as an adjunct treatment for socially anxious autistic adults. Overall, DBT has been demonstrated to be an effective therapeutic framework in the treatment of a range of mental health conditions, including borderline personality disorder (BPD) and chronic suicidality, for which it was originally designed (Linehan et al., 1991, 1993). Emerging evidence suggests that DBT may be more efficacious than traditional CBT in the treatment of generalised anxiety disorder (GAD), attributed primarily to its focus on emotion regulation and mindfulness (Afshari & Hasani, 2020). As DBT was developed to support interpersonal relationships, emotional regulation and distress tolerance (Linehan, 1993) and these constructs exist within many instances of psychopathology, Danforth et al. (2016) reasoned that these component parts of DBT should be explored as a viable and complementary modality for SAPT. MDMA was proposed to be uniquely suited given its ability to facilitate heightened states of

introspection without inducing cognitive distortions or major alterations in perception (Danforth et al., 2016). In the specific case of the autistic community and the treatment of social anxiety using SAPT, Danforth et al. (2018) demonstrated that the skills-based language that DBT is renowned for appeared to be useful both during the ineffable non-ordinary states induced by the MDMA and the subsequent integrative sessions. These integration sessions primarily used the mindfulness-based components of Linehan et al.'s (1993) treatment manual and were described as advantageous when communicating with others regarding novel states of consciousness (Danforth et al., 2018).

3.5.6 | Other standalone or adjunct therapies

Below, we outline sources describing additional standalone treatments or adjunct therapies that do not fall under the categories of humanistic-experiential, cognitive-behavioural, mindfulness and acceptance-based or psychodynamic therapies.

Restorative retelling

Restorative retelling (RR) is a structured, 10-session intervention developed originally for adult survivors of violent deaths (Rynearson & Salloum, 2021). González et al. (2022) present a case study promoting the adaption of RR for the purposes of psychedelic integration of traumatic experiences and, more broadly, non-ordinary states of consciousness. RR intends to modulate ingrained schemas and make meaning of emerging symbolic content by facilitating the integration of non-ordinary states and their experiences into autobiographical memory (González et al., 2022). RR proposes to do this by reviewing and relating the story of an event (e.g., a psychedelic experience or traumatic event) under the conditions of high safety and low avoidance (Rynearson et al., 2006). RR relies upon two foundational therapeutic steps: assimilation and accommodation. Assimilation involves emotional grounding, reliving the experience and bringing forward participant attention in the present tense. The assimilation process then uses a *camera panning* metaphor to have the participant note details within the event's major scenes. This process is accompanied by several narrating voices used to modulate any maladaptive schemas. Accommodation focuses on reflective and reflexive assessment of the internal world exposed by the assimilation process. Given the promotion of perspective shifting within psychedelic experiences (Timmermann et al., 2021), assimilation aims to prompt a psychological increase and development in the cognitive-emotional understanding of the participant and the world around them (González et al., 2022).

Psychotraumatological grounding

Psychotraumatological grounding (PG) is an exposure-based approach used during group talk therapy as a way of exploring the themes and overtures of the psychedelic experience (Oehen & Gasser, 2022). This theory is based primarily around what is called 'structural dissociation', which hypothesises that during moments of extreme trauma, an

individual's ability to cohesively process such experience is overloaded and personality can be fractured, thus resulting in severe dissociation (Oehen & Gasser, 2022). This manualised treatment suggests that small groups of clients are brought together four times (2–4 months apart) over the course of a year for a 3-day format of preparation, dosing and integration. Clients are either provided LSD or MDMA with break-out rooms supplied as required. Clients are brought back together for their small group discussion of their experience on the third day, where they are played the same music as the dosing session, which is reported to bring back memories of the experience (Oehen & Gasser, 2022). The authors report that this 4-h integration talk therapy session and experiencing feedback and compassion from the other group members further facilitated and potentiated the individual integration process.

Compassion-focused therapy

Compassion-focused therapy (CFT) has been proposed to target the psychological underpinnings of social connection and safety by replacing competition-based social mentalities with care-based replacements (Craig et al., 2020). CFT does this by training compassion meditation and imagery, as well as increasing resilience to suffering (Pots & Chakhssi, 2022). Developed originally by Gilbert (2005), CFT is said to stand apart from conventional CBT methods by delving into personal relationships with emotion rather than on the content of thoughts (Gilbert, 2014). Within this distinction Pots and Chakhssi (2022) describe synergistic overlap with CFT and psilocybin-assisted psychotherapy, specifically regarding their unified increase of acceptance and openness. In combination, the CFT SAPT framework is proposed to operate by weaving CFT principals and activities into the basic preparation, dosing and integration model. The CFT framework engages participants in a 10-week protocol, with two psilocybin 'navigation' or dosing sessions and two integration sessions after each dosing. Integration sessions contain both debriefing and sense-making of the psilocybin session, as well as active CFT processes (Pots & Chakhssi, 2022). Participants are taught how to engage with themselves and others using a compassionate lens, building upon the skills required to move forward with an open and care-based mentality. Exercises are completed in session in addition to homework, this includes compassionate thought records, letter writing and reframing exercises (Pots & Chakhssi, 2022). No clinical study testing this framework has been published yet.

EMBARC six-domain model

Brennan and Belser (2022) introduce the transdiagnostic, trans-drug framework of EMBARK, which was developed specifically for SAPT clinical trial protocols and the training of SAPT therapists. This model was designed to overcome challenges that prior theoretical combination treatments have been identified to have in conceptualising therapeutic change in psychedelic treatment, mobilisation of the current therapist cohort and the lack of ethically considered methods currently available within the SAPT literature. The authors suggest that due to these factors, the majority of current theoretical frameworks proposed have major validity, reliability and fidelity limitations

(Brennan & Belser, 2022). EMBARK's pluralistic approach sets out to resolve these issues through its six-domain system. These components are said to allow the therapist to reflexively and compassionately inquire into the specific events that benefitted the participant the most while continuing to provide sufficient structure for proposing empirically informed hypotheses. EMBARK's treatment manual intends for therapists to conduct integration sessions using their own specific evidence-based training through the EMBARK design treatment tasks. In doing so, EMBARK hopes to mobilise existing therapeutic members of the community to conduct SAPT integration without the need for specialised therapy training. During this integration phase therapists and participants collaboratively choose which goals they will pursue based on their identified importance (Brennan & Belser, 2022). These goals are guided by the participant's dosing session experience and are carried through until the finalisation of treatment.

Social and psychological support networks

Therapeutic communities of individuals undergoing SAPT may be quite valuable (Eisner, 1997). Some authors have stated that clients may benefit from additional integration or therapeutic work and that some participants in their studies continued to work with integration therapists or integration groups (Gorman et al., 2021; Pilecki et al., 2021) after the core period of the study (Murphy et al., 2022). Since legal SAPT is currently scarce, it is unlikely that clients undergoing this treatment approach will have a support group of peers who have experience with the same therapeutic process. Social and professional networks may respond with varying degrees of support or negative judgements. It is, however, conceivable that the stigma attached to this form of therapy and the general stigma attached to, for instance, addiction (Luoma et al., 2007) or seeking psychotherapy in general (Corrigan & Watson, 2006), may be counterproductive to the therapeutic process. Further, discussing the value of the experience within a Western and rational worldview, valuing ordinary consciousness above ecstatic, highly cognitive or deeply emotional states might be challenging (Nielson & Guss, 2018; Walsh & Grob, 2006). Thus, the therapeutic process and the therapeutic relationship become important for clients to have a frame of reference and interpersonal connection (Nielson et al., 2018). Additionally, it has been suggested to see the social network rather than the client as 'treatment unit'. Social workers or therapists may visit the client's home and get to know their family, friends and peers. Thereby, the client could receive assistance outlining and explaining their experience to their loved ones. Further, the therapists could assist in the adjustment of interpersonal relationships and the acceptance of alterations in attitudes resulting from the client's therapeutic process (Spencer, 1964). Alternatively, it was suggested that SAPT may be integrated into 12-step facilitation programs which usually offer social support to participants (Yaden et al., 2021).

Virtual reality

Virtual reality (VR) has been proposed as a potential facilitator of the psychedelic experience given its synchronistic qualities with SAPT

(e.g., relaxation, reduced anxiety and the promotion of mindfulness and mystical states). While VR does not represent a psychological framework that would be intended to partner with SAPT, Sekula et al. (2022) argue that VR can be used as a full-spectrum tool built to capitalise on the innately therapeutic aspects of the psychedelic experience. In this way, VR is proposed to be used for two purposes: to modulate the dosing session environment and to revisit these settings during the integration phase of treatment. Furthermore, given the established phenomena of the 'peak experience' identified in the current literature, VR may stand to soften or control the often-reported disorientation, fear and ego dissolution described (Thal et al., 2021). The benefits of VR within the SAPT research field are yet to be clinically tested, nevertheless, these methods do not negate the requirement of rigorous and evidence-based psychological manualised therapies to provide a framework from which the psychedelic experience may hang.

3.5.7 | No clearly identifiable therapies

Additional sources have been identified that present alternative approaches to integration sessions within the context of SAPT that do not align with a specific or easily discernible therapeutic orientation. Again, sources within this category predominantly described their approach to SAPT and integration as non-directive and supportive (Haden, 2018; Johnson et al., 2008; Richards, 2016), yet they tended to be relatively generic. Their primary objective was to ensure client safety and offer clear guidelines for navigating the psychedelic experience with a consistent emphasis on the therapists' flexibility in responding to the unique needs of each client.

Two sources (Grof, 1980; Meckel, 2019) described generic approaches that may be adaptable to different therapeutic orientations. However, a significant focus was placed on Psycholytic Therapy, which is influenced by Psychodynamic orientations and posits that substance-assisted sessions can be integrated into a psychodynamic treatment plan. Grof (1980), for instance, describes that depending on the diagnosis 15–100 therapy sessions may be employed. For integration sessions, participants meet with their therapists to share details of their psychedelic experience, address any puzzling aspects and facilitate integration into daily life. Special attention is given to analysing transference that may have occurred during the administration session. They are also prompted to write detailed accounts of their experiences and explore associated emotions through journaling.

Timmermann et al. (2022) advocate for the establishment of pathways and a framework for psychedelic therapist 'apprenticeships'. They emphasise the necessity of nuanced approaches to integrating psychedelic experiences. They propose training psychedelic therapists in a multifactorial approach centred around 'empathic resonance' which is supposed to extend beyond existing integration methods by emphasising the crucial role of validation practices. The protocol outlines that integration is accomplished through the utilisation of various approaches, including CBT, ACT, MI and EFT.

4 | DISCUSSION

This review highlights an existing gap in evidence-based literature regarding the use of therapeutic frameworks during integration sessions in SAPT. At present, there are no direct experimental comparisons of different approaches to integration in the treatment of psychological disorders (i.e., vs. none or treatment-as-usual). While the sources we included unanimously suggest integration is a central component of SAPT, its mechanism of action in mediating the therapeutic effects of SAPT remains elusive. The current literature predominantly consists of review articles, manuals, opinion papers or theoretical models. Current clinical studies have not systematically measured and compared the efficacy of different treatment approaches to integration. Instead, the aim of these studies was to assess the feasibility and efficacy of treating individuals with psychological disorders within a SAPT framework. Accordingly, the existing literature has yet to provide evidence to determine what therapeutic orientation or method for integration is most appropriate and efficacious. Many of the clinical studies offered insufficient details regarding psychotherapeutic frameworks used during treatment. Notably, the largest proportion of therapeutic frameworks used could not be clearly identified. As a result, there is currently not enough clinical data to allow a meaningful comparison of different therapeutic frameworks for SAPT in general or for integration specifically.

4.1 | Arguments for different therapeutic modalities to be used in integration sessions

The majority of the clinical studies using clearly identifiable frameworks applied psychotherapy principles from the humanistic-experiential orientation, including the most frequently adopted manual of Mithoefer (2017) for MDMA-assisted psychotherapy. The manual strongly emphasises the humanistic-experiential principles, including a base of empathic responding aimed at unfolding the clients' emerging experience that was evoked during the administration sessions. It also prioritises being process-following, rather than pre-structured, and placing the emphasis on the client's subjective phenomenology and somatic experience. The fundamental argument of this frame of working is that the substance acts as a catalyst to elicit subjective experience, and this experience needs to be followed to be integrated (Mithoefer, 2017). From this perspective, staying close to and following the newly elicited subjective material is essential to learning from the novel phenomenological information. In contrast, introducing overly structured didactic material or exercises may be a potential source of interference in harnessing this new phenomenological information. Furthermore, it might be argued that psychedelics can have a profound impact on the process of introspection and personal transformation, potentially intensifying and accelerating these changes dramatically. This heightened state of suggestibility during the experience (Carhart-Harris et al., 2015) can make the therapist-patient relationship particularly crucial. In such an environment of heightened intensity, acceleration and suggestibility, following

predefined and inflexible manuals may have the unintended consequence of manipulating and abusing patients, leading them to react inadequately or inappropriately.

The next most commonly used frameworks were the cognitive-behavioural and the mindfulness and acceptance-based therapies, which were used in five studies in total. Compared to the limited clinical application of these therapies, we retrieved a substantial number of articles presenting substantive arguments for their incorporation in (integration sessions of) SAPT (see e.g., Horton et al., 2021; Luoma et al., 2019; Sloschower et al., 2020; Yaden et al., 2022). There are two main parts of the argument. First, the proponents argue that given the large quantity of outcome studies outside the psychedelic literature, CBT and mindfulness and acceptance-based therapies should be prioritised in psychedelic literature going forward (Yaden et al., 2022). Second, there has been an argument that these therapies should be used based on a theoretical similarity between the substance effects (see Kočárová et al., 2021) and therapy concepts like psychological flexibility and experiential avoidance (both from ACT; Luoma et al., 2019; Walsh & Thiessen, 2018; Wolff et al., 2020). Thus, these proponents suggest the integration sessions follow a more structured, skill-training-based approach including didactic teaching, worksheets and metaphorical exercises typical of these therapies (Sloschower et al., 2020). The proponents of CBT and Mindfulness therapies further make the argument that these skill-training-based approaches are more clearly defined and more readily manualised and therefore are more scientifically rigorous (Bedi et al., 2022; Sloschower et al., 2020). While in contrast, they argue that the process-oriented approaches lack specificity and therefore could also lead to reduced long-term treatment efficacy (Watts & Luoma, 2020).

These two tendencies represent a schism in the literature between the humanistic-experiential priority of staying process-following and maintaining a phenomenological and experiential focus and the CBT and mindfulness school's didactic and skill-based structure. There is some initial qualitative research suggesting a client preference for non-directive rather than structured approaches (Watts et al., 2017). However, further research into client experiences of these styles in integration sessions, as well as process and outcome research, would be useful in providing further guidance to clinicians on how best to conduct these sessions. This research on psychotherapy specifically within SAPT is currently largely missing, with most efficacy trials focused on establishing *substance* effects, rather than *psychotherapy* effects.

4.2 | Moving beyond comparing therapy brands

Outside the SAPT literature, it has generally been established that different forms of psychotherapy tend to produce similar clinical results (Barkham & Lambert, 2021; Wampold, 2023; Wampold et al., 1997). Therefore, it may be useful to focus on other types of research rather than just comparing outcomes for different therapy brands. Most importantly, there could be benefit from examining mechanisms of change, particularly through process research (as has been argued

outside of the SAPT literature, for example, Crits-Christoph & Gibbons, 2021; Elliott, 2010; Greenberg, 1986). This shift to a focus on process could help refocus the field's attention toward more nuanced questions, such as what the most appropriate intervention for a particular client context moment is or how a particular client problem-process does get resolved. This shift in focus may also lead to the incorporation of different elements of the different orientations for different times, as well as consideration of various intra- and interpersonal variables (Thal et al., 2021; Wampold, 2015).

It has further been argued that psychedelics may be transdiagnostically effective due to their ability to increase plasticity and, in combination with psychotherapy, foster potential for change, resilience and adaptability (Kelly et al., 2021; Kočárová et al., 2021). As outlined in Thal et al. (2021), substance-induced states—such as the psychedelic experience—can allow clients to experience altered states of consciousness (e.g., reduced mind wandering; Jiang et al., 2017), enact shifts in perspectives or ideas (i.e., cognitive restructuring; Spiegel, 2013, 2016) and experience uncomfortable or unpleasant experiences and let them pass (i.e., mindfulness; Paulson et al., 2013; Spiegel, 2016).

Integration may be most pertinent in enacting lasting therapeutic gains, as the substance-induced experiences and associated memories may be reactivated and reconsolidated (Feduccia & Mithoefer, 2018). This can be assisted by an integrative therapeutic approach using and adapting different frameworks depending on the client's needs (Thal et al., 2021). Herein, it may be more important to utilise a framework whereby the client – and therapist – can make sense of their past, present and future experiences, considering variables such as the client's motivation, needs and state of functioning (Levine & Ludwig, 1965). Irrespective of the therapeutic framework, important considerations such as rigorous pre-screening, contextual factors (i.e., set and setting), preparation (e.g., safety, knowledge, intentions) and integration (i.e., meaning making) seem to be common amongst all approaches and are considered to be poignant factors regarding therapeutic outcome (Bogenschutz & Forcehimes, 2017; Bogenschutz & Ross, 2018; Thal et al., 2021, 2022). A tendency to propagate adjusting therapeutic frameworks to the clients' needs could also be observed in more recent publications with authors suggesting moving from fixed numbers of preparation, administration and integration sessions to a more flexible approach in which the number of sessions is based on individual clients' needs (see Brennan & Belser, 2022; Oehen & Gasser, 2022; Timmermann et al., 2022; Wolfson, 2022).

4.3 | Limitations and future directions

The present review comprised mostly of literature referencing the hypothesised effects of implementing specific theoretical models throughout the integration process. Even in clinical studies, the integration process and guiding therapeutic modality were not systematically specified and tested. Most importantly, the integration process was not compared to an alternate therapeutic modality or to a control (e.g., ACT vs. CBT vs. non-directive vs. no integration), allowing for

little to no conclusions regarding efficacy to be drawn. Horton et al. (2021), for instance, proposed to systematically compare the administration of psychedelics within nondirective and supportive contexts with a structured and manualized CBT context to determine the impact of psychotherapy in SAPT. Although it is argued that CBT and mindfulness and acceptance-based therapies (e.g., ACT or ACE) may share a theoretical affinity with SAPT (see Walsh & Thiessen, 2018; Wolff et al., 2020; Yaden et al., 2022)—specifically, throughout integration—there is no valid or reliable research demonstrating this at present.

It is important to note that even demonstrated psychotherapeutic adjuncts vary according to individual differences and treatment targets and so it will be important to measure efficacy amongst numerous variables in future trials (e.g., gender, culture, age, short- and long-term clinical gains, reduction of symptoms, self-efficacy and ego-dissolution). Accordingly, future research may implement a specified psychotherapeutic modality (e.g., ACT, ACE and trauma-informed therapy) outlining a specific integration procedure in the treatment of a specific disorder (e.g., PTSD, depressive disorders and OCD). This would allow for valid and reliable conclusions to be drawn about treatment efficacy (e.g., whether ACT or EFT is the most suitable adjunct to SAPT in the treatment of depressive disorders and a client with certain dispositions) and thus provide critical evidence to assess the potential future approval and integration of SAPT into mainstream treatment. Therefore, it can be important to delineate what integration process (e.g., therapeutic framework, number of formal integration sessions, level of support provided post-final session) may be best suited to particular disorders.

On the other hand, it is currently unknown which therapeutic techniques, therapy and relationship factors, therapeutic processes and intrapersonal and interpersonal variables influence integration processes. As mentioned above, different forms of psychotherapy tend to produce similar clinical results, suggesting there are other variables—such as empathy, congruence and unconditional positive regard—that are important factors influencing treatment efficacy (Ardito & Rabellino, 2011). There has been no clinical research exploring the adaptation of therapeutic processes to clients' needs and dispositions. While factors like pre-treatment motivation (e.g., Sansfacon et al., 2020), expectancy (Constantino et al., 2011) and therapeutic relationship (Martin et al., 2000) are known to affect treatment outcome (independent of therapeutic orientation) in regular psychotherapy and have been highlighted to effect therapeutic outcome by different authors in the field of SAPT (Garcia-Romeu & Richards, 2018; Murphy et al., 2022; Watts & Luoma, 2020), they have been investigated in current clinical trials to a limited degree (e.g., Murphy et al., 2022). Likewise, therapist variables (see Saxon et al., 2016) like therapeutic presence which may be essential for effective therapeutic relationships, independent of the theoretical orientation of the therapist (Geller, 2013; Geller et al., 2012; Geller & Greenberg, 2012; Tannen & Daniels, 2010) have not been considered in past studies. While efficacy studies comparing different therapeutic orientations will be important for the integration of SAPT into mainstream treatments, investigations of therapeutic processes may help

improve the overall quality of SAPT and foster the adaptability of intervention to individual clients' needs (see APA, 2012). This current lack of research comparing modality-specific approaches to SAPT and individual therapeutic processes may encourage a 'magic bullet' approach to SAPT and poses issues relating to systematic research and scientific rigour, whereby psychoactive substances and their associated peak experiences are expected to alter the existing patterns of thought and behaviour regardless of set and setting and the importance of psychotherapy may be disregarded (see Thal et al., 2021, 2022).

Another limitation relates to the overall finding of quality of evidence in the existing literature. The majority of studies presented a theoretical model only. Further, where clinical trials were included, the integration procedure was not compared with an alternative therapeutic modality or a control and the processes that were outlined in most clinical trials were not specific enough to be replicated. This means the conclusions drawn regarding treatment efficacy remain theoretical. While SAPT is a relatively new treatment modality and therefore few clinical trials have been completed, it is imperative that more sophisticated research protocols and appropriately funded trials to test them are developed since this is an essential next step for the progression of SAPT as treatment with best practice procedures.

The inclusion of systematic measurements may allow for hypothesised synergistic therapeutic models—such as ACT and SAPT in the treatment of depressive disorders—or therapeutic processes to be applied and compared to alternative models and processes, resulting in the refining of therapeutic protocols. Several psychometric instruments that could be applied to systematically investigate the efficacy of different therapeutic models for integration in future studies have recently been validated (Frymann et al., 2022; Peill et al., 2022; Watts et al., 2022).

Overall, there is limited capacity for this review to make comparisons between papers specifying different therapeutic approaches. As in conventional psychotherapy, therapeutic effects may not be entirely mediated by therapeutic orientations or frameworks; instead, these effects may depend on factors like the therapeutic relationship and motivation for change. The therapeutic relationship may be particularly important in SAPT given the role clinicians play throughout the entirety of treatment—especially during the peak experience. Despite the validation of current standardised models, future research should investigate these intersecting variables across models.

5 | CONCLUSION

This review indicates that although there has been significant work completed within the domain of SAPT there is currently limited access to empirically tested therapeutic frameworks for clinicians to direct their practice. This is despite the frequent references to integration being a critical component for the safe implementation of SAPT. The comparability between clinical studies and integration sessions is further restricted due to the limited use of well-documented, standardised and reproducible therapeutic frameworks in most current trials.

Frequently, multiple frameworks and therapeutic approaches are blended, making it difficult to determine the actual therapeutic conduct utilised in clinical practice. At present, there appears to be an inadequate representation and lack of systematic investigation of the psychotherapeutic components of SAPT in clinical research in general and integration sessions specifically. This potentially leads to a 'magic bullet' perspective that fails to recognise the necessary personal and therapeutic efforts required for SAPT to be efficacious and limits any conclusive statements regarding appropriate therapeutic frameworks for integration sessions. To date, it remains uncertain whether the inclusion of integration and particular psychotherapeutic frameworks and interventions has an impact on the effectiveness of SAPT.

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The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Open Science Framework at <https://osf.io/5ysmq/>, reference number 5ysmq.

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APPENDIX A

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Almond and Allan (2019)	PTSD	Opinion paper	Emotionally focused couples therapy	MDMA	N/A	N/A	N/A	N/A
Anderson et al. (2020)	Distress, depression, grief (long-term AIDS survivors)	Open-label mixed-methods pilot study	Brief supportive expressive group therapy	Psilocybin	18	5	1	5-7
Barone et al. (2019)	PTSD	Qualitative investigation	N/A	MDMA	19	N/A	N/A	N/A
Bathje et al. (2022)	Various	Review	Various	Various	N/A	N/A	N/A	N/A
Bogenschutz (2013)	AUD	Review	Various	Serotonergic psychedelics	N/A	N/A	N/A	N/A
Bogenschutz & Forchimes, 2017	AUD	Manual	Motivational enhancement and taking action (META = CBT + MET)	Psilocybin	N/A	25-40 mg/70 kg	3	3
Bogenschutz et al. (2015)	AUD	Single-group proof-of-concept study	MET	Psilocybin	10	1st session: 0.3 mg/kg 2nd session: 0.4 mg/kg	1-2	1-2
Bogenschutz et al. (2022)	AUD	Double-blind randomised clinical trial	Motivational Enhancement and Taking Action (META = CBT + MET) according to Bogenschutz & Forchimes, 2017	Psilocybin	95	4	2	8 (4 after each administration session)
Bouso et al. (2008)	PTSD	Double-blind, ascending-dose study, randomised and placebo-controlled within each dose condition	Generic therapeutic model (similar to Greer & Tolbert, 1998)	MDMA	29	3	1	3
Brennan and Belser (2022)	Various	Manual	EMBARK	MDMA, serotonergic psychedelics	N/A	≥3; dependent on client's needs/wants	1	≥3; dependent on client's needs/wants

(Continues)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Carhart-Harris et al. (2016)	Treatment-resistant MDD	Open-label, single-arm pilot study	Generic therapeutic model therapeutic model	Psilocybin	12	1	2	3
Carhart-Harris et al. (2021)	MDD	Double-blind randomised and placebo-controlled trial	Accept connect embody model	Psilocybin	59	2	2	6
Cavarra et al. (2022)	Various	Review	Various	MDMA, ketamine, serotonergic psychedelics	N/A	Various	Various	Various
Danforth et al. (2016)	Social anxiety in autistic adults	Study protocol for Danforth et al. (2018)	Mindfulness-based therapy adapted from dialectical behavioural therapy	MDMA	N/A	3	2	7
Danforth et al. (2018)	Social fear and anxiety in autism	Blinded, placebo-controlled pilot study	Mindfulness-based therapy adapted from dialectical behavioural therapy	MDMA	12	3	2	6
Davis et al. (2021)	MDD	Waiting list RCT	According to Johnson et al. (2008)	Psilocybin	27	8 h (≥2 sessions)	2	5
D'Souza et al. (2022)	MDD	Open-label, fixed-order, dose-escalation exploratory study	None/support during experience if needed	DMT	10	1	1	1
Earleywine et al. (2022)	N/A	Mixed-methods investigation	N/A	Various	30	N/A	N/A	N/A
García-Romeu and Richards (2018)	N/A	Review	N/A	Serotonergic psychedelics	N/A	N/A	N/A	N/A
Gasser et al. (2015)	Anxiety associated with life-threatening diseases	Double-blind, randomised, active placebo-controlled pilot study	Continuous process lasting several months; not specified	LSD	12	2	2	3
González et al. (2022)	Complicated grief	Opinion paper & case report	According to Greer and Tolbert (1998) for administration; restorative retelling for integration	Ayahuasca	1	NR (14 weekly psychotherapy sessions)	3	NR (14 weekly psychotherapy sessions)
Goodwin et al. (2022)	MDD	Double-blind, dose-finding, parallel-	Perceptual control theory + cognitive-behavioural	Psilocybin	233	≥3	1	2

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Gorman et al. (2021)	Various	Opinion paper	Psychedelic harm reduction and integration therapy	Serotonergic psychedelics, MDMA, ketamine	N/A	N/A	N/A	N/A
Greer and Tolbert (1998)	Method to prepare clients and conduct therapeutic sessions with MDMA	Review and case reports	Nondirective supportive therapeutic model	MDMA	N/A	N/A	N/A	N/A
Griffiths et al. (2016)	Anxiety and depression in life-threatening cancer patients	Randomised double-blind cross-over trial	According to Johnson et al. (2008)	Psilocybin	51	≥2	2	≥4 (≥2 after each administration session)
Grob et al. (2011)	Advanced cancer and reactive anxiety	Double-blind, placebo-controlled study	None/support during experience if needed	Psilocybin	12	1	1	1
Grof (1980)	Various	Book	Various	LSD	N/A	Various	Various	Various
Haden (2018)	Various	Book	N/A	Serotonergic psychedelics	N/A	2–4 (60–120 min)	Various	≥1
Holze et al. (2022)	Anxiety with and without a life-threatening illness	Double-blind, placebo-controlled, 2-period, random-order, crossover	Psycholytic therapy	LSD	42	1	2	4
Horton et al. (2021)	See original studies	Review	Nondirective supportive therapeutic model (for more details see original studies)	Psilocybin	N/A	N/A	N/A	N/A
Jardim et al. (2021)	PTSD	Open-label pilot study	According to Mithoefer et al. (2015)	MDMA	3	3	3	9 (3 after each administration session)

(Continues)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Jensen et al. (2022)	AUD	Study protocol for randomised, double-blinded, placebo-controlled, 1:1 parallel-group clinical trial	Motivational interviewing (MI) + acceptance and commitment therapy (ACT) + guided imagery and music therapy (GIM)	Psilocybin	90	1 (4 h)	1	1 (4 h)
Johnson et al. (2014)	Smoking cessation	Open-label pilot study	CBT	Psilocybin	15	4	2-3	2-3
Johnson et al. (2008)	N/A	Review	N/A	Serotonergic psychedelics	N/A	≥8 h spread over a month	N/A	≥1
Kvam et al. (2022)	MDD	Study protocol	Therapists trained according to Mithoefer et al. (2017)	MDMA	N/A	4 (90 min)	2	6 (3 × 90min after each administration session)
Luoma et al. (2019)	N/A	Opinion paper	Contextual behavioural science	Serotonergic psychedelics	N/A	N/A	N/A	N/A
MacLean et al. (1961)	Alcohol use disorder; various	Quasi experiment	Transintegrative therapy	LSD	N/A	400-1500 µg	1	1
Meckel (2019)	Various	Book chapter	Psychoalytic therapy	MDMA, LSD, 2C-B	N/A	N/A	N/A	N/A
Mitchell et al. (2021)	Severe PTSD	Randomised, double-blind, placebo-controlled phase 3 study	According to Mithoefer (2017)	MDMA	90	3	3	9
Mithoefer et al. (2011)	Treatment-resistant PTSD	Blinded, placebo-controlled study	According to Mithoefer (2017)	MDMA	20	2	2	8
Mithoefer et al. (2018)	PTSD	Randomised, double-blind, dose-response, phase 2 trial	According to Mithoefer (2017)	MDMA	26	3	3-5	6
Mithoefer (2013)	PTSD	Opinion paper	According to Mithoefer (2017)	MDMA	N/A	N/A	N/A	N/A
Mithoefer (2017)	PTSD	Manual	Humanistic-experiential framework	MDMA	N/A	NR	≥1	≥1
Monson et al. (2020)	PTSD	Uncontrolled trial	Cognitive-behavioural conjoint therapy	MDMA	12	3	2	10

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Moreno et al. (2006)	OCD	Double-blind proof-of-concept study phase I	None/support during experience if needed	Psilocybin	9	N/A	1-4	N/A
Nielson et al. (2018)	AUD	Qualitative content analysis	See Bogenschütz et al. (2015)	Psilocybin	N/A	N/A	N/A	N/A
Oehen et al. (2013)	Treatment-resistant PTSD	Double-blind, active placebo RCT	According to Mithoefer (2011, 2017)	MDMA	12	2	3	9
Oehen and Gasser (2022)	Trauma-related disorders	Mixed-methods investigation	Psychedelic-assisted group psychotherapy	MDMA, LSD	50	Dependent on client's needs/wants	Dependent on client's needs/wants	Dependent on client's needs/wants
Ot'Alora et al. (2018)	Treatment-resistant PTSD	Randomised double-blind dose response comparison	According to Mithoefer (2017)	MDMA	28	3	2	6
Palhano-Fontes et al. (2019)	Treatment-resistant MDD	Parallel-arm, double-blind placebo RCT	Not specified	Ayahuasca	29	0	1	1
Pahnke et al. (1970)	Various	Opinion paper	Various	LSD	N/A	N/A	N/A	N/A
Pilecki et al. (2021)	N/A	Opinion paper	Psychedelic harm reduction and integration therapy	Serotonergic psychedelics, MDMA, ketamine	N/A	N/A	N/A	N/A
Pots and Chakhssi (2022)	Depression	Opinion paper	Compassion focused therapy	Psilocybin	N/A	4	2	6
Richards (2016)	Various	Opinion paper	N/A	Serotonergic psychedelics, MDMA	N/A	N/A	N/A	N/A
Ross et al. (2016)	Anxiety and depression in cancer patients	Double-blind, placebo-controlled, crossover trial	Generic therapeutic model/elements of logotherapy	Psilocybin	29	3	2	6
Sanches et al. (2016)	MDD	Open-label trial	Generic therapeutic model	Ayahuasca	17	0	1	0
Savage and McCabe (1973)	AUD	Randomised-controlled trial & case reports	NR	LSD	74	24 h in 5 weeks	1	1 week
Sekula et al. (2022)	Various	Opinion paper	Psychedelic-assisted psychotherapy supplemented by virtual reality	Serotonergic psychedelics, MDMA, ketamine	N/A	N/A	N/A	N/A

(Continues)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Sessa et al. (2021)	AUD post detoxification	Open-label safety and tolerability proof-of-concept study	Motivational interviewing and third-wave cognitive-behavioural approaches	MDMA	14	6	2	2
Sloshower et al. (2020)	Depression	Opinion paper	ACT	Psilocybin	N/A	2	2	4
Sloshower et al. (2020)	Depression	Manual	ACT	Psilocybin	N/A	2	2	4
Spriggs et al. (2021)	Anorexia nervosa	Study protocol	Various (manual used for the trial will be published)	Psilocybin	20	3	3	3
Thal et al. (2021)	Treatment-resistant depression	Descriptive study	Various	Psilocybin	N/A	N/A	N/A	N/A
Timmermann et al. (2022)	Various	Opinion paper	Various	Serotonergic psychedelics	N/A	N/A	N/A	N/A
Wagner et al. (2019)	PTSD	Opinion paper & case report	Cognitive-behavioural conjoint therapy for PTSD	MDMA	2	4 (15 CBCT modules)	2	2
Walsh and Thiessen (2018)	Various	Opinion paper	Third-wave behaviour therapies	Serotonergic psychedelics	N/A	N/A	N/A	N/A
Watts and Luoma (2020)	Integration of accept, connect, embody model in psychedelics-assisted psychotherapy	Opinion paper	Accept, connect, embody model	Psilocybin	N/A	N/A	N/A	N/A
Watts et al. (2017)	Treatment-resistant depression	Qualitative investigation	Generic therapeutic model	Psilocybin	N/A	N/A	N/A	N/A
Watts (2021)	Describe the steps, procedures, and scripts used in the "Psilodep" study and how the ACE model was incorporated into the study protocols	Manual	Accept, connect, embody model	Psilocybin	12	1	2	3 (after low dose one via telephone, after high dose two in-person sessions one week apart)

Study	Clinical target	Design	Therapeutic framework	Substance	N of participants	N of preparation sessions	N of administration sessions	N of integration sessions
Whitfield (2021)	Various	Opinion paper	Contextual behavioural science, ACT	Various	N/A	N/A	N/A	N/A
Wolff et al. (2020)	Various	Opinion paper	CBT, ACT	Serotonergic psychedelics, MDMA	N/A	N/A	N/A	N/A
Wolfson (2022)	Various	Opinion paper	Psychedelic-supportive psychotherapy	Various	N/A	Dependent on client's needs/wants	Dependent on client's needs/wants	Dependent on client's needs/wants
Wolfson et al. (2020)	Anxiety associated with life-threatening diseases	Phase 2 double-blinded, placebo-controlled RCT with an open-label crossover	According to Wolfson and Mithoefer (2015): non-directive/supportive	MDMA	18	3	2	6
Wolfson and Mithoefer (2015)	Anxiety associated with a life-threatening illness	Manual	Non-directive supportive therapeutic model	MDMA	N/A	NR	≥1	≥1
Yaden et al. (2022)	Various	Opinion paper	Cognitive-behavioural approaches (CBT, ACT, DBT)	Serotonergic psychedelics	N/A	N/A	N/A	N/A

APPENDIX B: Description of qualitative sources.

Study	Description of approach
Almond & Allan, 2019	Emotion-focused couple therapy (EFT) is a brief multi-modal approach that seeks to understand relationship distress at the individual, couple and family levels. EFT is used in integrating psychedelics experiences by engaging one or both partners in three core steps: 1: Regulating affect, 2: Creating moments of shared vulnerability and 3: Reviewing and revising an individual's view of the self or others. Throughout this process, MDMA is used as an adjunct to facilitate the sharing and processing of traumatic memories and events as well as difficult emotions with their partner.
Bathje et al., 2022	An analysis of all current integration approaches used in experimental and real-world studies. The authors describe 10 approaches to integration, all published since 2017. These approaches were generally based on indigenous worldviews, transpersonal psychology, Jungian psychology, acceptance and commitment therapy, psychodynamic psychology, somatic psychology, nature relatedness, Biopsychosocial/spiritual models and harm reduction. The 10 methods listed are as follows: visionary plant medicine integration, holistic model for a balanced life, realms of integration model, transpersonal SAFETY, nature relatedness, psychedelic harm reduction and integration model, modes of experiencing, acceptance and commitment therapy, and the ACE model.
Bogenschutz, 2013	A review of the current literature on the effects of psychedelic-assisted psychotherapy. Generally discussing the 'non-directive' methods of the clinical trials completed at the time. This includes encouraging the patient to let go and be accepting of the experience that unfurled during the dosing session.
Bogenschutz & Forchimes, 2017	8 h after ingestion, participants were asked to write down an account of the experience to discuss in subsequent sessions. The basic content included open-ended inquiry concerning administration. Participants were invited to consider the meaning and implications of the experience. Using motivational interviewing, therapists elicited a discussion of how the session has affected the participant's relationship to alcohol. Safety assessment was also completed (MSE) and follow-up on any adverse events.
Brennan & Belser, 2022	The article introduces the EMBARK model, a transdiagnostic, trans-drug framework for the provision of support psychotherapy in psychedelic-assisted psychotherapy. EMBARK promotes six clinical domains: Existential-spiritual, mindfulness, body aware, affective-cognitive, relational and keeping momentum. These domains are used flexibly within the three major phases of psychedelic-assisted psychotherapy-Preparation, medicine or 'dosing' session and integration. Within integration therapists are given a set of general tasks, as well as domain-specific tasks from each of the six domains. Participants are encouraged to collaborate with therapists on which integration goals they will pursue based on their pertinence to what arose in the participant's dosing session. This process entails (1) debriefing and supporting the participant's sense of what transpired in the dosing session; (2) relating material that arose in the dosing session to their symptoms and treatment goals; (3) collaboratively identifying new attitudes, beliefs, behaviours, values or other subjective shifts that may contribute to symptom reduction and (4) planning post-treatment changes that may support and sustain this outcome.
Caverra et al., 2022	A systematic review which identified 55 published articles involving psychedelic-assisted psychotherapy and their therapeutic approaches, all of which described integration as a key component other than that of the TIMBER (Pradhan et al., 2017) approach. The models discussed varied in their definition, duration, time between sessions and point of commencement. More broadly, integration across this review was described as 'consolidating change and generating meaning'. The study describes a paucity of information about the therapeutic stance held during integration and little collaboration between studies.
Danforth et al. (2016)	This study protocol outlines a DBT framework for MDMA-assisted psychotherapy for social fear and anxiety in autistic adults. In integration sessions, mindfulness-based components of Linehan's (1993) treatment manual are used primarily. This was described as advantageous when communicating with others regarding novel states of consciousness in the subsequent clinical trial (Danforth et al., 2018).
Earleywine et al., 2022	A mixed-methods study analysing the key themes associated with the practice of integration through the lens of 30 'integration therapists' currently working in the field. No integration methods were discussed, however, several working definitions were discussed, with 19 core themes discovered.
García-Romeu & Richards, 2018	Participants were encouraged to expand upon their experiences, describing them in as much detail as possible, interpreting and unpacking their contents with therapists. As part of this process, participants were invited to generate a written narrative or produce artwork detailing their recollection of the drug session, sometimes replaying relevant music from the session to help aid recall. This was intended to help solidify insights gained during drug session.
González et al., 2022	Implementation of restorative retelling (RR) to process psychedelic experiences by closely reviewing and relating a participant's story of a traumatic event. This is completed by two processes: (1) The assimilation process; which involves grounding exercises and a narrative retelling of the traumatic experience. This narrative is told using three

Study	Description of approach
Gorman et al., 2021	<p>key 'voices' (external, internal and reflexive). (2) The accommodation process; which focuses on a reflexive assessment and reorganisation of the internal world. Therapists prompt a psychological increase and expansion of the participants' cognitive-emotional understanding of themselves, others and the world around them.</p> <p>Psychedelic Harm Reduction and Integration (PHRI) is a transtheoretical and transdiagnostic clinical approach to working with patients who are using or considering psychedelics in any context. PHRI involves supporting exploration and enhancing understanding in patients who develop a relationship with psychedelics without encouragement to use psychedelics, the administration of psychedelics or the provision of therapy during the dosing experience. PHRI is not a treatment modality or technique but serves as a perspective that therapists of all training backgrounds can incorporate into their practice. PHRI is a method of supporting the integration of insights into a patient's psychedelic experience through a non-judgemental, harm reductionist mode. PHRI provides several ways to deal with the general themes of integration, including working with challenging experiences, the 'unfolding' process, bodywork, and tools for maintaining benefits.</p>
Greer & Tolbert, 1998	<p>A therapeutic manual detailing case studies and anecdotal evidence of MDMA-assisted psychotherapy. Little information regarding integration was provided, however, it was stated that spontaneous discussion of the dosing experience would begin to occur as soon as the acute effects of the MDMA had passed. This post-session discussion would occur for approximately 1–3 h and was based on a non-direct/supportive stance. No interpretation or meaning making of the experience was provided, but rather, gentle facilitation and a 'smooth transition' back to ordinary consciousness were promoted.</p>
Grof, 1980	<p>Historiography of LSD psychotherapy and its psychotherapeutic practice. Grof recommends several styles of therapy (including Psychedelic therapy) as a method of working with clients during psychedelic-assisted psychotherapy. Fifteen to 100 episodes (average of 40) are described as a common treatment plan depending on the nature of the clinical problem. Integration begins the morning after the LSD dosing session, whereby the participant is encouraged to sleep as long as necessary before being provided direction to rest and relax, staying in a meditative state of mind for as long as possible. This can include quiet walks in nature, basking in the sun, swimming or listening to music (especially that which was played during the dosing session). Later in the day participants are joined by their therapists so details of the dosing experience can be shared, with any puzzling aspects of the psychedelic session interrogated. This session also serves to facilitate the integration of the material and its application to everyday life. Special attention to transference that may have occurred during the dosing session and its analysis. Those who have had their dosing session videotaped are encouraged to watch this back during the integration session. Participants are also encouraged to write down detailed accounts of their experience while noticing any emotions which emerge during this journaling task. This piece of writing becomes the subject of future integration sessions. Participants are given the option to express their dosing session experience through various other art forms, for example, painting, mandala drawing, poetry, written stories/plays, sculptures, dancing or musical composition. This process can take days or weeks in duration.</p>
Haden, 2018	<p>The initial process of integration: Therapists: 1. Posed question of 'how are you doing?'; 2. Asked about the positive and challenging aspects of the treatment session; 3. Discussed the participant's intentions (which were discussed in the preparation process); 4. Asked about the home environment or significant social contacts after the experience; 5. If the participant reported increased anxiety or distressing disorientation, therapists explained that this is common and a natural part of the healing process; 6. Completed a detailed examination of 'lessons learned' from the treatment experience; 7. Asked about the plan for integration and acting on the insights; 8. Discussed how the real work is just beginning and 'lessons learned' are quickly unlearned if we do not work hard at changing our thoughts/behaviours/feelings/relationships; 9. Discussed how the participant can improve existing relationships with family, friends and community and build new connections, which support the positive emotional and behavioural changes, which are being processed.</p>
Horton et al., 2021	<p>A systematised review of the psychotherapeutic components of psilocybin-assisted psychotherapy. This paper included 11 articles, all of which were found to consistently present integration as the reflection of thoughts and feelings arising from the psilocybin experience and exploring their implications on targets of change.</p>
Johnson et al., 2008	<p>The article provides a succinct overview of the distinctive trajectory of human hallucinogen research. Subsequently, a comprehensive analysis is presented, delving into the potential hazards associated with hallucinogen administration and elucidating the precautionary measures implemented to mitigate these risks. Psychotherapeutic frameworks are not described in great detail but a general non-directive and supportive stance is promoted.</p>
Luoma et al., 2019	<p>Promoting and exploring CBS (e.g., ACT) as an ideal framework for understanding psychedelic experiences and integrating them into everyday life.</p>
MacLean et al., 1961	<p>Manualised treatment directions for LSD-assisted psychotherapy for alcohol use disorder. Non-directive methods are used to assist the participant in conceptualising the experience. The process of integration is said to begin in the treatment room and then further expand in the participants' relationship with the therapist over time. Specific time spaces, session numbers or therapy style are not explained other than 'non-directive'.</p>
Meckel, 2019	<p>Psychoanalytic skills are promoted as essential for integration methods. Principals such as 'nonreactive observation' are identified as key to best practice. Body work, the replaying of dosing session music and group talk therapy circles are all key components of integration in this method. The author describes several steps for integration using these aforementioned key components. Soon after the dosing session, the participants are encouraged to share their experiences within a group setting. Further, writing notes after the fact, and reliving the experience. After this psycho-therapy sessions with the dosing therapist in order to gain new insights into the experiences.</p>

(Continues)

Study	Description of approach
Mithoefer, 2017	The therapists were present to answer questions, as well as to offer support and encouragement. The therapists took a supportive and validating stance toward the participant's experience. They also helped the participant further explore new insights, new perspectives, shifts in their relationship to their own emotions and the clearing of old thought patterns. The therapists offered insights or interpretations regarding the participant's experience, but this was purposefully minimised. The therapists encouraged the participant to make time in daily life to reflect on the MDMA-assisted sessions in order to bring valuable elements of the non-ordinary experience into ordinary consciousness. Therapists promoted journaling or introspection (to mitigate the influence of outside feedback) and were equipped with art supplies.
Nielson et al., 2018	Therapists examined the participant's mental status—including thought process, thought content, perception and orientation—and engaged in an open-ended discussion of the client's experience.
Oehen & Gasser, 2022	A psychotraumatological grounding in an exposure-based approach is used during group talk-therapy as a way of exploring the themes and overtures of the psychedelic experience. This theory is based primarily around what is called 'structural dissociation', which postulates that under the pressure of severe and repetitive trauma, the mental capacity to integrate such experiences is overstrained and the personality divides into different subparts, each with its own psychobiological characteristics and degree of dissociation. Small groups of patients are brought together four times (2–4 months apart) over the course of a year for a 3-day format of preparation, dosing and integration. Patients are either provided LSD or MDMA with break-out rooms supplied if required. Patients are brought back together for their small group discussion of their experience on the third day, where they are played the same music as the dosing session, which is reported to bring back memories of the experience. The authors report that this 4-h integration talk therapy session and experiencing feedback and compassion from the other group members further facilitated and potentiated the individual integration process.
Pahnke et al., 1970	Follow-up therapy began during the re-entry period of the session day and continued the next day as the client and therapist reviewed the events of the session and attempted to integrate them. The client was encouraged to write a detailed description of his experience. Integration suggested: an intensive psychotherapeutic program of sufficient duration.
Pilecki et al., 2021	An overview perspective of the umbrella term 'integration' within modern clinical trials. Identifying its place within the nest of treatment models produced during psychedelically assisted psychotherapy, its many forms, benefits and broad definition.
Pots & Chakhssi, 2022	An exploration of the compassion focused therapy (CFT) model of psilocybin-assisted psychotherapy. CFT is proposed to be a compassionate practice that will reinforce the experiences during the navigation and follow-up therapy sessions. Within this model, integration sessions are partly debriefing of the experience and partly psychotherapeutic. Debriefing focuses on recollecting the experiences and the therapist leads the navigation of the accompanying feelings. All sessions focus on deepening the compassionate self and applying compassionate skills in daily life.
Richards, 2016	Integration is recommended to require a minimum of 8 h of shared time with a therapist, spread over a 2-week period. Described as the moving of awareness back and forth from the memory of the experience to the decision and strategies required in daily living. Generally explored with a 'non-directive' method.
Sekula et al., 2022	Detailed explanation of how virtual reality (VR) is used as a full-spectrum tool built to capitalise on the innately therapeutic aspects of the psychedelic experience. The authors purport that VR's evidenced capacity to aid relaxation, buffer from external stimuli, promote mindful presence, train the mind to altered states and evoke mystical states promotes an ideal medium of psychedelic therapy. VR is proposed to be used in two ways: to modulate the dosing session environment and to revisit these settings during the integration phase of treatment.
Sloshower et al., 2020, 2020	1-day post dosing: Therapists elicited a complete narrative of the participant's experience during the dosing session. They identified and explored aspects of the participant's narrative that engage with core ACT principles, as well as instances when they moved toward or away from psychological flexibility. 1-week post-dosing: Therapists further reviewed and reflected participant's dosing experience and what changes have taken place since. They then began the process of values clarification by discussing the participant's completed valued living questionnaire. Therapists and participants discussed relative importance of valued domains of living and how they are or are not living in accordance with their values, as well as how to put values into action (1-week post-dosing).
Spriggs et al., 2021	A 6-week protocol whereby participants will partake in eight study visits, including three psilocybin dosing sessions and three main integration sessions 1 day post-hoc. Remote integration is offered 1 week after the final treatment session, with 3-, 6- and 12-month follow-up sessions.

Study	Description of approach
Tai et al., 2021	Therapeutic model based on several pre-existing frameworks—CBT, MT and ACT. Therapists are instructed to assist participants in directing attention toward internal experiences as they emerge in the present moment. This includes noticing foreground and background thoughts, emotions, physical sensations, images and memories. The authors promote participants reflecting on their dosing experience, and for therapists to assist in generating new insights following dosing.
Timmermann et al., 2022	Advocating for the benefits of developing pathways and a framework for psychedelic therapist ‘apprenticeships’, which highlight the need for nuanced forms of integration of psychedelic experiences. The authors promote training psychedelic therapists in a multifactorial approach based around ‘empathic resonance’, which is argued to go beyond current approaches to integration by stressing the central importance of validation practices. This protocol states that integration is completed using ‘various’ approaches, listing CBT, ACT, MI and EFT in its formulation.
Walsh & Thiessen, 2018	Evidence promotion of TWBT as an appropriate psychological framework for SAPT. Mindfulness as a core tenant of TWBT is described as an important factor for both preparation and integration.
Wagner et al., 2019	Cognitive-Behavioural conjoint therapy (CBCT)/MDMA-assisted psychotherapy for PTSD. All 15 modules of CBCT were used and mapped onto the basic preparation, dosing and integration methods of SAPT. Integration sessions were intentionally non-directive, with preparation and dosing sessions utilising the CBCT modules. Outside of the two dedicated integration sessions, which occurred the day after the two MDMA sessions, four modules of CBCT were delivered over videoconference over the following 3 weeks, followed by two modules of CBCT which were conducted in person the day before the second MDMA session. The final four modules of CBCT were delivered weekly over videoconference after the second MDMA session.
Watts & Luoma, 2020	Integration included a three-stage process (1st: meaning making, 2nd: reflection on key aspects, 3rd: identifying new behaviours and goals and supporting changes).
Watts, 2021	A treatment manual for the accept/connect/embody ‘ACE’ model of psychedelic-assisted psychotherapy currently being used in clinical trials at Imperial College London. Integration is broken up into (A) morning after session 1, (B) phone call 1 week after session 1 and (C) morning after session 2. These three stages describe the therapist assisting the patients in processing their own personal material from the experience. These methods are loosely arranged around the foundational principles set out by the cognitive behavioural method of acceptance and commitment therapy (ACT).
Wolff et al., 2020	The authors promote a cognitive behavioural model of integration due to the purported synergies in the promotion of acceptance and reduction in avoidance that exist between CBT and the mechanism which underpins psychedelic-assisted psychotherapy. ‘Belief relaxation’ is described to increase motivation for acceptance via operant conditioning, which in turn engenders episodes of avoidance-free exposure to difficult events. This theory is based on the Carhart-Harris relaxed beliefs account of psychedelics’ acute brain action.
Whitfield, 2021	This article critically examines the distinctive hurdles encountered in psychedelic-assisted therapy and introduces an innovative and enhanced psychological flexibility model. This model integrates principles from contextual behavioural science (CBS) and ACT to effectively address the complex array of challenges, such as ego inflation, traumatic memories, and the subjective experience of entities.
Wolfson & Mithoefer, 2015	A treatment manual detailing the MAPS protocol for MDMA-assisted psychotherapy. Integration is described as a transtheoretical approach that includes follow-up phone calls and direct 1:1 therapy sessions focusing on the participants’ recount of the experience during the experimental session. The authors describe this as an opportunity to process any thoughts or feelings that have come up since the dosing session. This is followed by detailed psychoeducation regarding MDMA and what to expect in the preceding days/weeks. Further, developing healthy tools for coping and connection and introducing ‘bodywork’ to alleviate any somatic distress that the dosing session may have brought on. Lastly, relaxation techniques and other cognitive-behavioural strategies are detailed.
Wolfson, 2022	Psychedelic-supportive psychotherapy (PSP) is a model used adjacent to a dosing experience, which is proposed to reduce ethical and legal risks for practitioners working alongside participants who are accessing these currently illicit substances through underground methods. This model is transtheoretical, and at its core, it purports to not require the participant/therapist to be connected during the dosing session in order for the benefits of the psychedelic experience to strengthen the therapeutic alliance. This model works in tangent to Psychedelic Harm Reduction Integration (PHRI) presented by Gorman et al. (2021). The model is structured by three segments of the experience: before, during and beyond the dosing session. This loosely maps on to the preparation/medicine/integration sessions described in the dominant literature body. PSP suggests that integration is the process of attending to the thoughts, feelings and activities occurring organically in congruence with and beyond the dosing experience.
Yaden et al., 2022	Discussion of what therapeutic paradigm has the strongest rationale for integration methods in psychedelic-assisted psychotherapy practices. The authors conclude that cognitive-behavioural therapies, including newer branches such as acceptance and commitment therapy, are the strongest contenders. The article describes these therapies as developing awareness of thoughts, feelings and sensations, in addition to mindfulness techniques which promote acceptance. The author argues that these ‘third wave’ therapies closely align with the overall aim of psychedelic therapy, which promotes ‘cognitive flexibility’.