


## REVIEW

# Perspectives and preliminary experiences of psychedelics for the treatment of eating disorders: A systematic scoping review

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**Abstract**

**Objective:** Research regarding the therapeutic application of psychedelics and psychedelic-assisted psychotherapy in the treatment of eating disorders (EDs) has begun to emerge. This systematic scoping review aimed to map and synthesise the existing evidence regarding the participant reported efficacy and perspectives concerning psychedelics in the treatment of EDs, and to identify significant research gaps.

**Method:** A systematic search was undertaken across several databases in accordance with Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews guidelines.

**Results:** 1290 publications were identified, 1135 after duplicates removed, with 17 meeting full-eligibility criteria. Overall, findings suggested that most participants reported experiencing a meaningful reduction in their ED symptoms and having positive experiences or an openness to explore psychedelics as a treatment for ED symptoms, although some noted concerns of adverse effects and the importance of having psychological support to increase safety and efficacy.

**Conclusions:** While preliminary research suggests psychedelics and psychedelic-assisted psychotherapy may be a viable treatment option for ED symptoms, further research with more robust research designs is required to increase confidence in its efficacy, generalisability, and safety as a therapeutic medium.

**KEYWORDS**

eating disorders, psychedelic, psychedelic-assisted psychotherapy, scoping review

**Highlights**

- While research regarding the efficacy of psychedelics in the treatment of eating disorders (EDs) is still in its infancy, preliminary findings have been promising.

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- Participants across the included studies reported largely positive experiences and an openness to explore the use of psychedelics and psychedelic-assisted psychotherapy as a treatment modality for EDs. However, some participants noted concerns about potential adverse effects (AEs) and the importance of ensuring psychological support was provided before, during, and/or after a psychedelic treatment experience.
- There is currently not enough evidence to determine which psychedelic substances are most efficacious for therapeutic intervention for EDs. Further research is therefore needed, with more robust research methodologies.

## 1 | INTRODUCTION

Eating disorders are amongst the most challenging mental health disorders to treat (Halimi, 2013; Kotilahti et al., 2020). Anorexia nervosa has an estimated prevalence of 0.9%–2.6%, while bulimia nervosa (BN) and binge-eating disorder (BED) have an estimated lifetime prevalence between 0.5% and 3% (Flament et al., 2015; Micali et al., 2017; National Eating Disorders Collaboration, 2017; Stice et al., 2013). In 2019, it was estimated that the global disease burden of EDs – calculated based on estimated disability-adjusted life-years – was 6.6 million (Santomauro et al., 2021).

AN is characterised by the restriction of energy intake leading to a significant loss of body weight, intense fear of gaining weight, engaging in behaviours that interfere with weight gain, and overvaluation of body weight and/or shape (APA, 2013). AN typically develops a chronic course and has the highest mortality rate of any psychiatric disorder (Hay, Touyz, & Sud, 2012; Kotilahti et al., 2020). Available pharmacological and psychotherapeutic treatments for AN are largely ineffective (Abbate-Daga et al., 2013; Foldi et al., 2020; Walsh, 2013). The estimated recovery rate from AN is less than 50%, with a 40% relapse rate (Miskovic-Wheatley et al., 2023). Several maintaining processes of AN have been proposed, including perfectionism, low self-esteem, interpersonal difficulties, emotion dysregulation and cognitive inflexibility (Fairburn et al., 2003; Shafran et al., 2002; Treasure & Schmidt, 2013); however, our understanding of the aetiology of AN is limited (Touyz et al., 2023).

Individuals with BN and BED both experience recurrent episodes of binge-eating, defined as consuming objectively large amounts of food in one sitting with a sense of a loss of control over eating, accompanied by feelings of distress. However, those with BN also regularly engage in compensatory behaviours such as self-induced vomiting, misuse of laxatives, excessive

exercise, or periods of self-starvation (APA, 2013). Cognitive-behavioural therapy is regarded as the most effective treatment for BN and BED (Wilson et al., 2007) with recovery rates around 50% and 60%, respectively. Relapse rates for those who reach full remission remain around 18% for BN and 11%–12% for BED (Miskovic-Wheatley et al., 2023). Further, there are high rates of diagnostic crossover between all EDs, making diagnostic-specific outcomes challenging to determine, and demonstrating the importance of considering transdiagnostic processes in the long-term treatment and monitoring of individuals with EDs (Miskovic-Wheatley et al., 2023). Altogether, these findings indicate an urgent need for the exploration novel interventions in ED treatment.

It is estimated that approximately 80% of adults with an ED have at least one co-occurring psychiatric disorder (Udo & Grilo, 2019), with the most common being mood disorders, anxiety disorders, substance use disorders (SUDs), posttraumatic stress disorder (PTSD), and personality disorders (Brewerton, 2019; Molendijk et al., 2017; Udo & Grilo, 2019). Individuals with an ED and co-occurring mental health disorders are at higher risk of treatment resistance. Participants with AN and comorbid depression have been shown to be six times less likely to recover from AN at 22-year follow-up (Franko et al., 2018). Given the elevated presence of co-occurring psychiatric disorders in EDs, interventions targeting EDs may need to demonstrate transdiagnostic effects to increase the likelihood of long-term recovery.

Psychedelic-assisted psychotherapy has received increased attention as a potential transdiagnostic treatment (e.g., see Garcia-Romeu et al., 2016; Spriggs et al., 2020; Wheeler & Dyer, 2020). Psychedelics, otherwise known as serotonergic hallucinogens, are made up of a group of psychoactive substances that can lead to profound psychological experiences that include of altered states of consciousness, perception, thoughts, and feelings (Hosanagar et al., 2021). Classical psychedelics

include lysergic acid diethylamide (LSD), psilocybin (found in 'magic' mushrooms), N,N-Dimethyltryptamine (DMT; the principal active constituent found in ayahuasca), and mescaline (the active constituent found in peyote and San Pedro cacti; Spriggs et al., 2020; Wheeler & Dyer, 2020). The effects of 'classical' psychedelics are thought to be exerted primarily via serotonin type 2A (5-HT<sub>2A</sub>) receptor agonism (Hosanagar et al., 2021).

Two other compounds that are being studied for potential use in the treatment of EDs are 2-(2-chlorophenyl)-2-(methylamino)cyclohexanone (ketamine) and 3,4-methylenedioxymethamphetamine (MDMA; Brewerton et al., 2022; Raghildstveit et al., 2022). Ketamine and MDMA share similar subjective effects as classical psychedelics, including altered perception, emotions, and thinking. However, ketamine is characterised by its dissociative and analgesic effects and exerts its effects primarily via N-methyl-D-aspartate (NMDA) receptor antagonism (Raghildstveit et al., 2022), while MDMA exerts its effects primarily via serotonin (5-HT) receptor agonism and is known for its social, empathy-inducing, and stimulatory effects (Kirkpatrick et al., 2014).

Promising preliminary evidence on the therapeutic and transdiagnostic applications of psychedelics for mental health disorders have begun to re-emerge in recent years for treatment-resistant depression (e.g., Carhart-Harris et al., 2017; Tai et al., 2021), obsessive-compulsive disorder, anxiety disorders (e.g., Danforth et al., 2018; Moreno et al., 2006), SUDs (e.g., Argento et al., 2018; Bogenschutz et al., 2018), and PTSD (e.g., Mithoefer et al., 2012; Oehen et al., 2013). Psychedelic-assisted psychotherapies have been recently designated as 'breakthrough therapies' for treatment-resistant depression and PTSD by the US Food and Drug Administration (FDA; Center for Drug Evaluation and Research, 2019; Haridy, 2019).

Improvements in emotional processing, serotonergic function, cognitive flexibility, and promotion of neuroplasticity are potential mechanisms underlying the observed therapeutic effects of psychedelics (Carhart-Harris et al., 2018; dos Santos et al., 2021; Murphy-Beiner & Soar, 2020; Vollenweider & Preller, 2020). Participants often report becoming more psychologically present and engaged with their emotions during psychedelic experiences (Carhart-Harris et al., 2018). This may be due to increased functional connectivity in brain regions associated with emotional responsiveness, as was found in an fMRI study of psilocybin-assisted therapy for treatment-resistant depression (Mertens

et al., 2020). Psychedelics appear to decrease 5-HT<sub>2A</sub> receptor signalling, which is a mechanism of action associated with several antidepressants (dos Santos et al., 2021), suggesting that improvements in serotonergic functioning may underly the therapeutic properties of psychedelics. Further, psychedelics have been shown to desynchronise brain regions involved in the default mode network (DMN; Carhart-Harris et al., 2012; Palhano-Fontes et al., 2015; Pasquini et al., 2020; Smigielski et al., 2019), which has been implicated in rumination and habitual emotional, cognitive, and behavioural patterns (Carhart-Harris & Friston, 2010; Whitfield-Gabrieli & Ford, 2012). As such, psychedelics may contribute to establishing or re-learning new patterns of thought, thereby increasing cognitive flexibility (dos Santos et al., 2021). Finally, psychedelics have been observed to increase levels of glutamate and brain-derived neurotrophic factor (BDNF) in the rat cortex (Muschamp et al., 2004; Vaidya et al., 1997). Since  $\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionate (AMPA) receptor action is associated with the release of BDNF, which is essential for neuronal changes associated with learning and memory, psychedelics may promote neuroplasticity via glutamate driven AMPA receptor activation (Vollenweider & Preller, 2020). It is important to note that while the psychoactive effects of psychedelics are important, Nayak and Johnson (2020) argue that aspects of conventional psychotherapy such as the therapeutic alliance, meaning making, and the development of psychological skills, also contribute to the therapeutic effect of clinical psychedelic experiences.

Recent preliminary evidence suggests that psychedelics may be effective in the treatment of EDs; however, high quality clinical studies regarding efficacy and safety are needed (Gukasyan et al., 2022; Ledwos et al., 2022). Theoretical reviews suggest that psilocybin and ketamine may potentially ameliorate dysfunctional neurobiological systems, particularly for patients with treatment-resistant AN (Keeler et al., 2021; Rodan et al., 2021). Further, two recent reviews have investigated the potential of psychedelics in ED treatment. Calder et al. (2023) focused on the mechanisms of psychedelics in ED treatment and found preliminary evidence that these novel treatments may be effective for AN and BN but reported a dearth of data pertaining to BED, while Valdiviezo-Oña et al. (2023) investigated outcomes in psychedelic-assisted ED treatments in clinical and non-clinical settings. Research into psychedelic treatment for EDs is rapidly emerging with new studies published since the last review was conducted, yet limited clinical

studies exist and a broad scientific consensus regarding their safety and efficacy for individuals with an ED has not been established. Additionally, little is known regarding the participant-reported experiences of psychedelics for EDs.

## 1.1 | Objectives

The current scoping review aimed to synthesise existing evidence regarding the participant-reported efficacy of psychedelics and psychedelic-assisted therapies as well as participant perspectives regarding the use of psychedelic therapies in the treatment of EDs. We also aimed to provide exploratory insight into other important aspects of this novel intervention such as descriptions of therapeutic experiences, safety considerations, and the role of therapists in both research and clinical contexts. Additionally, we aimed to identify any significant gaps in current literature which may help to inform future research and the development of innovative, evidence-based clinical interventions.

## 2 | MATERIALS AND METHOD

### 2.1 | Protocol and registration

This systematic scoping review was conducted following the recommended Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines for scoping reviews (Tricco et al., 2018; see Supplementary Table 1). The study was preregistered in Open Science Framework (OSF; <https://doi.org/10.17605/OSF.IO/TRCHQ>).

### 2.2 | Eligibility criteria

Studies were deemed eligible for inclusion if they had a population of human adults above the age of 18 who reported a current or past diagnosis of an ED or ED symptoms, and who had either participated in a psychedelic/psychedelic-assisted psychotherapy experience or provided their perspectives on psychedelics as a treatment for EDs/ED symptoms. We included studies examining classic psychedelics such as LSD, DMT, psilocybin and mescaline, as well as MDMA and ketamine. Eligible studies were required to have either a qualitative, quasi-experimental, experimental, or correlational design. Case reports and case series were also included.

Studies were also required to be published in English in 1990 or later to capture research conducted during the new more scientifically rigorous and ethical wave of psychedelic research (Wheeler & Dyer, 2020).

### 2.3 | Information sources and search strategy

The following electronic databases were systematically searched for research articles: PsychINFO, MEDLINE, Web of Science, ProQuest (Psych), Scopus, Science Direct, CENTRAL, and EMBASE. Given the paucity of literature in this area, the search terms were broad ('psychedelics' AND 'EDs') to ensure that all relevant studies were captured. Where applicable, the following filters were applied: 1990+, human, English. The final searches were conducted in March 2024. In addition to the database searches, the reference lists of studies that met inclusion criteria were examined to determine whether any relevant studies were missed.

### 2.4 | Study selection

Across the eight databases, 1290 publications were identified. Following transferral to Endnote Reference Manager, 155 duplicates were removed, resulting in 1135 publications remaining (see Figure 1 for PRISMA flow chart). Next, 1112 publications were excluded during title and abstract screening, and 23 publications remained requiring a full-text review.

This was completed by two independent raters. Inter-rater agreement was 100% ( $\kappa = 1.0$ ) with no disagreements to resolve. Overall, 17 publications met inclusion criteria and were included for data extraction.

### 2.5 | Data charting

The following study characteristics and results are summarised in Table 1: author(s), country of origin, compound and dosage, population, gender, mean age, study design, quality assessment, intervention, therapy, outcome measures, results, and key findings.

### 2.6 | Synthesis of results

Following data charting, a qualitative synthesis was conducted to summarise the main findings of the

TABLE 1 Summary of included studies.

Author(s), year of publication, country of origin	Compound (and dosage if available) characteristics	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Brewerton et al., 2022 USA, Canada, and Israel	MDMA 80–180 mg followed by a half-dose of 40–60 mg versus placebo.	$N = 82$ adults who reported PTSD symptoms ( $n = 15$ with current ED, $n = 13$ with previous ED and $n = 28$ at risk for an ED (EAT-26 scale)) $M$ Age = 41.0 Female: 65.1% Male: 34.8% Note: excluded active purging and underweight	Randomized placebo-controlled trial QA = Good	Three 8-h MDMA-AT sessions with 3 90-min follow-up sessions or inactive placebo with therapy	Supportive treatment with a trained therapist exploring therapy intentions and goals, working on traumatic memories by finding new perspectives, meaning and emotional resolution. Encouraged to explore, express, and understand their PTSD symptoms and how those symptoms might have impacted their lives.	EAT-26 CAPS-5 BMI	They found a significant reduction in ED symptoms following MDMA-AT versus PLAC-AT in individuals with severe PTSD. When comparing at risk versus clinical groups based on the EAT-26, there was a significant reduction in EAT-26 scores with MDMA-AT compared to PLAC-AT in the at-risk group as well as a trend for such an effect in the much smaller clinical group.
Brewerton et al., 2021 USA and Canada	MDMA 80–180 mg followed by a half-dose of 40–60 mg versus placebo.	$N = 2$ participants with an ED who participated in a larger trial of MDMA for PTSD (Brewerton et al., 2022).	Qualitative QA = Poor	See above	See above	Two patient vignettes were included, that qualitatively described their experiences with the MDMA for PTSD clinical trial.	One patient reported that while MDMA did not cure her ED, it gave her a visceral understanding and insight that laid the groundwork for further therapy. The second patient described how MDMA helped her to face her past trauma and realize the role of control in her life. She reports feeling that, for the first time, she had really done something in therapy.



TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available) characteristics	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Calabrese et al., 2022 USA	Ketamine	N = 5 individuals diagnosed with AN- R who were weight recovered but had significant elevations in AN- typical behaviours.  M Age = 38.4 Female = 100%	Pre-post pilot study with no control group QA: Fair	Therapeutic ketogenic diet (TKD), home maintenance of nutritional ketosis for 4–8 weeks, followed by six titrated ketamine infusions.	N/A	EDEQ CIA EDRQ PHQ-9	All study participants reported improvement after TKD and more so after addition of the ketamine intervention. Weight remained largely stable. One participant relapsed 4 months after the intervention and required a higher level of care. There were significant effects for the scores over time for the CIA, EDEQ Global, EDEQ Eating concern, EDEQ shape concern, EDRQ Acceptance of self and body and EDRQ social and Emotional connection
Dechant et al., 2020 USA	Ketamine	N = 1; a 29-year-old female with a history of AN since adolescence with comorbid major depressive disorder and borderline and narcissistic personality disorder features at a high risk for suicide.	Case report QA = Poor	Nine treatments of racemic ketamine IV dosed at 0.5 mg/kg infused over 40 min. The first eight treatments occurred twice weekly and the ninth occurred a full week after the eighth for a total of 5 weeks.	Th participant had been in residential treatment (focus on weight restoration, sleep, trauma informed therapy to target low self- esteem and coping) for 3-weeks prior to ketamine infusions; unclear if psychotherapy was present during ketamine infusions outside of routine clinical monitoring.	BMI QIDS Basis-24 Suicidality	After treatment eight, the patient showed no active or passive thoughts of suicidality and a significant drop in symptoms occurred after three sessions. An external event led to a resurgence in suicidality after session nine; the long-term effects of the ketamine sessions remain unclear.

(Continues)

TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available) characteristics	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Harding et al., 2021 United Kingdom	Psychedelics - mixed	<i>N</i> = 200 adults from the community who reported having an ED diagnosis <i>M</i> Age = 28.9 Gender %: Female: 94.5% Male: 5.5%	Web survey study (qualitative and quantitative) QA: Fair	Nil – participants with an ED asked to fill in an online questionnaire regarding their perspectives on complementary and psychedelic treatment for EDs.	N/A	BIPS Scale created by research team	Majority participants reported: <ul style="list-style-type: none"><li>• Psychedelics as a valuable treatment option</li><li>• Openness to participate in psychedelic clinical trials</li><li>• Concerns about AEs and safety</li><li>• A desire for safe and medically monitored environments when participating</li></ul>
Keeler et al., 2023 UK and USA	Intramuscular ketamine ( <i>n</i> = 2) intranasal esketamine ( <i>n</i> = 2)	<i>N</i> = 4 adult female patients with a lifetime diagnosis of AN and a comorbid diagnosis of major depressive disorder	Case series QA = Good	Participants received between 3 and 23 doses of intramuscular ketamine or intranasal esketamine. Maximum dosages were between 84 and 200 mg of esketamine and ketamine, respectively.	Before each ketamine/ esketamine session, patients discussed their goals and intentions with their clinician.	Vital signs PHQ-9	All patients reported subjective improvements in depressive symptoms, but only those treated with esketamine showed a reduction on the PHQ-9. Weight either remained stable or increased over the treatment period in all participants.

TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available)	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Knatz Peck et al., 2023	Psilocybin (single 25 mg dose)	N = 10 adult females with a current diagnosis of AN or pAN M Age = 28.3 QA: Fair	Non-experimental pre-post study (no control group)	Participants were given one dose of 25-mg synthetic psilocybin alongside psychological support to assess the safety and tolerability of psilocybin therapy for individuals with AN and pAN, as well as any significant changes in ECG, vital signs or suicidality. Follow-up conducted post-dosing at day 1, day 7, day 28, and day 84	Psychological support by trained therapists provided to participants during dosing session.	Vital signs Laboratory tests ECG AEs C-SSRS EDE BMI PASTAS YBC-EDS CIA RMQ 5D-ASC QIDS Qualitative responses (method not provided)	<ul style="list-style-type: none"> <li>Psilocybin was found to be generally safe and tolerable for a majority of participants (with no significant AEs).</li> <li>No clinically significant changes in ECG, laboratory tests, vital signs, or suicidality.</li> <li>Participants generally reported the psilocybin-assisted therapy session being meaningful and positive, although ED psychopathology results were highly variable.</li> </ul>
Lafrance et al., 2017 Canada	Ayahuasca	N = 16 adults who had been diagnosed with an ED at one point (10 AN, 6 BN) and also attended at least one ayahuasca ceremony M Age = 33.5 Gender %: Female: 87.5% Male: 12.5%	Qualitative design - (content analysis of interviews) QA: Good	Participants engaged in a semi-structured interview about their experiences with traditional ayahuasca ceremonies (between 75 and 180 min). The interview schedule was tailored based on Loizaga-Velder and Verres' (2014) methodology and the Ayahuasca treatment and Outcome project (Rush, 2015).	N/A - reflections of participants previous traditional ayahuasca ceremonies	Thematic analysis	<ul style="list-style-type: none"> <li>Three key themes addressed regarding the healing effects of ceremonial ayahuasca: 1. Psychological symptoms and body symptoms and physical sensations. 3. Contextual (importance of ceremony and aftercare).</li> <li>Meaningful reductions in ED symptoms were reported by participants.</li> </ul>

(Continues)



TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available) characteristics	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Lafrance et al., 2021 Canada	Psychedelics – mixed Psychedelic history reported by participants: Psilocybin mushrooms (95.6%) LSD (32.7%) DMT (6.3%) Mescaline (4.4%) Ayahuasca (1.9%)	<i>N</i> = 159 undergraduate psychology students with reported history of psychedelic use (some with disordered eating symptoms) <i>M</i> Age = 23.4 Gender %: Female: 49.7% Male: 49.7% Other: 0.6%	Correlational design - Online survey (non-controlled, naturalistic) QA: Fair	Participants responded to an online survey with questions regarding their past psychedelic use and potential symptoms of mental health issues, difficulties with emotion regulation, and self-reported spirituality.	N/A	WHOQOL-SRPB DERS EDE-Q BAI CESD-R	Reported psychedelic use predicted greater spirituality, which predicted greater emotional regulation, which predicted lower levels of disordered eating, anxiety, and depressed mood.
Mills et al., 1998 UK	Ketamine with concomitant use of opioids	<i>N</i> = 15 patients with chronic anorexia with comorbid bulimia ( <i>n</i> = 5), compulsive behaviours ( <i>n</i> = 8), and alcohol use disorder ( <i>n</i> = 2) and <i>N</i> = 42 controls <i>M</i> age = 33.3 Female = 100%	Pre-post study with control group QA: Poor	A ketamine infusion was delivered at 20 mg per hour for 10 h with further treatments being given within 3–5 days depending on treatment response.	N/A	Compulsion score (13 items from the coping questionnaire), weight, state of menstruation	Divided into responders ( <i>n</i> = 9) and non-responders ( <i>n</i> = 6). Mean compulsion and depression scores decreased significantly in responders for several months
Raghildstveit et al., 2021 USA	Ketamine	<i>N</i> = 1; a 21-year-old female patient with BN with an average of 40 purging episodes per day in the past 12 months	Case report QA = Good	Psychotherapy combined with six ketamine sessions of racemic ketamine hydrochloride at 0.5 mg per kg of bodyweight administered IV over 40 min. The patients completed 3 courses of treatment (18 sessions).	A person-centred, humanistic therapeutic approach was adopted. A 30-min preparatory therapy session preceded each ketamine dose.	Vital signs EDEQ Number of binge and purge episodes	After a steady decline in EDEQ scores and binge/purge episodes during the course of treatment, the patient stopped binge/purge behaviours 3-months post-treatment. No signs of relapse were found at 1-year follow-up.

TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available)	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Renelli et al., 2018 Canada	Ayahuasca	N = 13 adults from the community who had an ED diagnosis and had participated in at least one ayahuasca ceremony M Age = 30.1 Gender %: Female: 92.3 Male: 7.7%	Qualitative design - (content analysis of interviews) QA: Good	Participants engaged in a semi-structured interview regarding their experiences with conventional ED treatments compared to ceremonial ayahuasca (between 68 and 192 min). The interview was tailored based on Loizaga-Velder and Verres' (2014) methodology and the Ayahuasca treatment and Outcome project (Rush, 2015).	N/A - reflections of participants previous traditional ayahuasca ceremonies and conventional ED treatments	Thematic analysis	<ul style="list-style-type: none"> <li>Authors identified five key themes relating to participants' views of ayahuasca as a therapy: 1. It is an effective form of ED treatment. 2. It allows for deep healing. 3. It helps with processing intense emotions and memories. 4. It allows for the embodiment of love/self-love, and self-care. 5. It provides a spiritual component to ED recovery.</li> </ul>
Robison et al., 2022 USA	Ketamine	N = 5 female patients aged between 22 and 43 years with a primary ED diagnosis and comorbid GAD	Case series QA = Good	The treatment took place in groups of four, once a week on Mon morning over a 4-week period. Intramuscular ketamine was administered with dosage varying according to participant needs informed by an initial dose of 25 mg.	Participants were patients in a residential ED clinical where they received care including dialectical behaviour therapy, CBT, group movement therapy, and self-esteem work, as well as twice weekly one-on-one therapy with	PHQ-9 GAD-7 Vital signs Patient satisfaction	Four participants experienced clinically significant improvements on the PHQ-9 and 2 participants experienced clinically significant improvements on the GAD-7. Three participants provided their feedback on the therapy and two of them reported improvement in ED thoughts on (Continues)

TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available) Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Schwartz et al., 2021 USA	N = 4 adult female patients with a chronic eating disorder (more than 7 years) with comorbid mood symptoms.	Case series QA = Good	Participants with a chronic ED a comorbid treatment-resistant major depressive disorder were included. Ketamine was administered both intramuscularly and intravenously for 2 participants. Doses occurred over a 12+ month period.	All patients were in standard outpatient treatment. No specific treatment was reported before, during or after the ketamine dosing sessions.	BDI STAI EDEQ Vital signs	Three of four participants saw improvements in anxiety and ED symptoms following dosing sessions. Improvements were sustained for only one participant. All participants saw improvements in depressive symptoms and suicidality.
Scolnick et al., 2020 USA	N = 1; a 29-year-old woman with severe and enduring AN (15+ illness duration) with intermittent alcohol dependence.	Case report QA = Poor	The patient had been undergoing a ketogenic diet when she was referred for ketamine infusions. She received racemic IV ketamine at 0.75 mg/kg infused over 45 min. She received 4 ketamine dosing sessions.	Unclear if there was therapeutic support surrounding ketamine dosing sessions.		The participant saw the most dramatic changes following the fourth ketamine session. Significant reductions were found on the PHQ-9 and the patients qualitatively reports a complete remission.

a psychologist. During ketamine dosing, support was provided throughout, as well as processing the experience as a group post-dose.

behaviours as a result of ketamine treatments.

TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available)	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
Spriggs et al., 2020	Mixed psychedelics substances	N = 28 participants reporting a lifetime ED diagnosis M age = 36.0 Gender %: Female: 85.7% Male: 14.3%	Online survey pre-post psychedelic experience QA: Good	Participants with a lifetime ED diagnosis planning on taking a psychedelic substance completed an online survey 1–2 weeks before and 2 weeks after the intended date of the psychedelic experience. Acute experience ratings were collected 1 day after the experience.	N/A	WEMWBS QIDS-SR16 EBI	Significant changes in wellbeing and depression scores following a psychedelic experience. There was weak evidence for a positive relationship between EBI and change in WEMWBS and a moderate negative relationship between EBI and change in QIDS-SR16.

Williams et al., 2022 Canada	Ayahuasca	N = 15 Ayahuasca ceremony leaders (1 with previous ED diagnosis and 9 with past ED symptoms) M Age = 43.5 Gender %: Female: 42.9% Male: 57.1% Two-spirit: 7.1%	Qualitative design - (content analysis of interviews) QA: Good	Participants engaged in a 90-min semi-structured interview regarding their conceptualisations of EDs and hypotheses regarding potential theoretical mechanisms ED healing from ayahuasca. The interview was developed based on Loizaga-Velder and Verres' (2014) methodology	N/A – reflections of participants' perspectives on the therapeutic potentials of ayahuasca as an ED treatment.	Thematic analysis	Two key themes were identified by authors, each with several subthemes: 1. Ceremonial ayahuasca leaders' theories of EDs (e.g., that (a) EDs are symptomatic of an underlying problem, (b) EDs serve a function, (c) EDs affect health across multiple domains. 2. Ceremonial ayahuasca leaders' views on ayahuasca's mechanisms of action which help individuals with EDs achieve favourable outcomes (e.g., (a) that (Continues)
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TABLE 1 (Continued)

Author(s), year of publication, country of origin	Compound (and dosage if available) characteristics	Sample characteristics	Study design and QA	Intervention	Therapy	Outcome measures	Results and key findings
							ayahuasca can facilitate holistic recovery, (b) help identify and heal the 'root cause' of EDs, (c) promote holistic healing, and (d) enhance and rebuild relationships.

Abbreviations: ACE, Adverse Childhood Experiences; AEs, Adverse Events; AN, Anorexia Nervosa; BAI, Beck Anxiety Inventory; BDI-II, Beck Depression Inventory II; BIPS, Brief Illness Perception Scale; BMI, Body Mass Index; BN, Bulimia Nervosa; CESD-R, Centre for Epidemiologic Studies Depression Scale-Revised; CAPS-5, Clinician Administered PTSD Scale for DSM-5; C-SSRS, Columbia-Suicide Severity Scale; DEKS, Difficulties in Emotion Regulation Scale; DMT, N,N-Dimethyltryptamine; EAT-26, Eating Attitudes Test 26; EBI, Emotional Breakthrough Inventory; ECG, Electrocardiogram; ED, Eating Disorder; EDE-Q, Eating Disorders Examination Questionnaire; MDMA, 3,4-methylenedioxymethamphetamine; pAN, Anorexia Nervosa; partial remission; PASTAS, Physical Appearance State and Trait Anxiety Scale; QA, quality assessment; QIDS-SR16, Quick inventory of Depressive Symptomology; WEMWBS, Warwick-Edinburgh Mental Wellbeing Scale; WHOQOL-SRPB, World Health Organisation Quality of Life-Spirituality; Religiousness; and Personal Beliefs; QIDS, Quick Inventory of Depressive Symptomatology; RMQ, Readiness Motivation Questionnaire; YBC-EDS, Yale-Brown-Cornell Eating Disorder Scale; 5D-ASC, Five-Dimensional Altered States of Consciousness Questionnaire.

included studies. Key findings were grouped by efficacy (i.e., whether participants reported that a psychedelic experience helped improve ED symptoms), participant perspective on potential AEs and the importance of therapeutic support before, during and after the psychedelic experience.

## 2.7 | Quality assessment

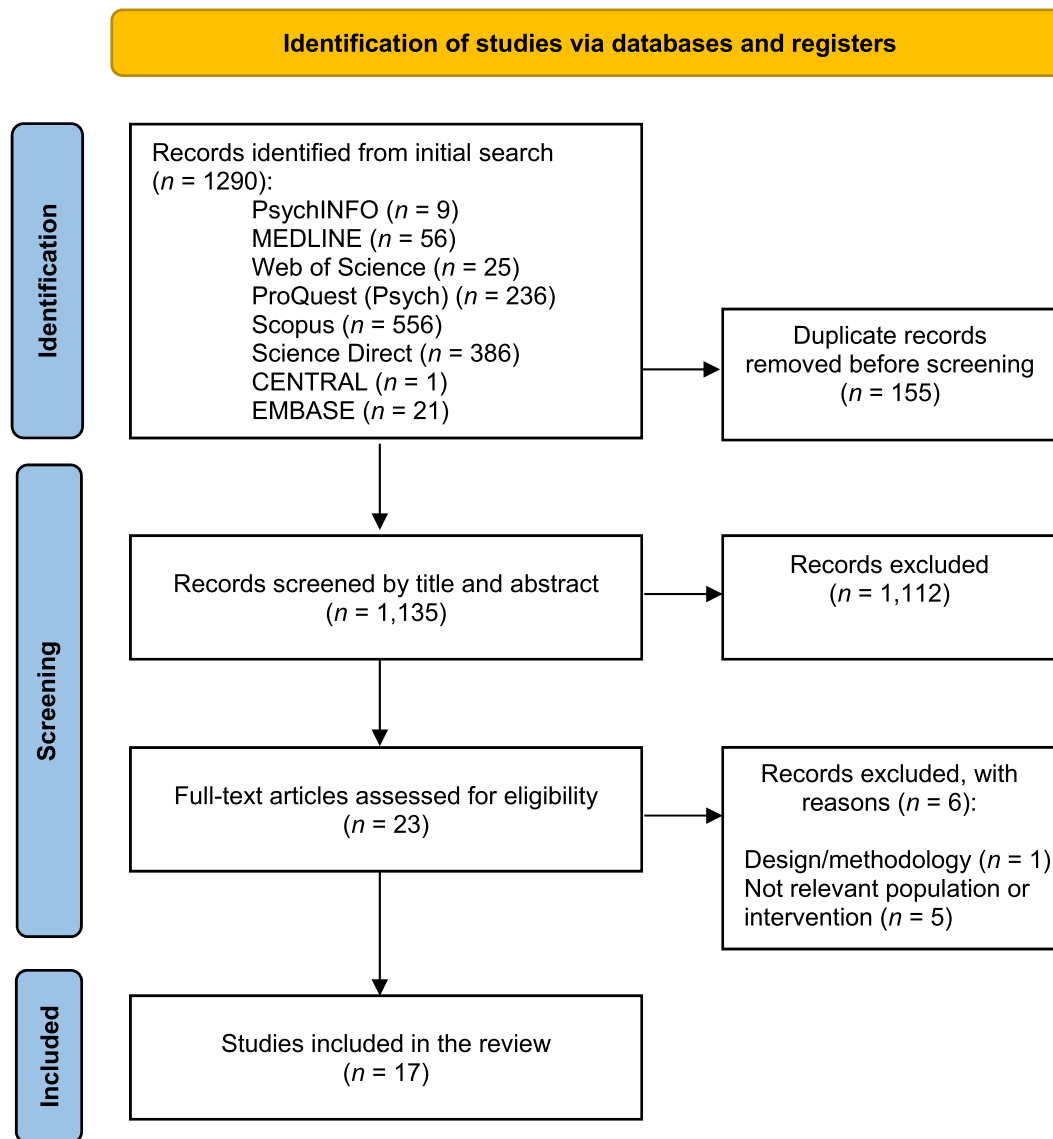
The included studies were assessed for methodological limitations using the National Heart, Lung, and Blood Institute's (NHLBI) 12-item and 14-item quality assessment tools for the quantitative studies (NHLBI, 2014) and the 9-item tool for case studies/case series as well the Joanna Briggs Institute's (JBI) 10-item checklist for qualitative research for qualitative studies (JBI, 2017). The quantitative studies were given a rating of good, fair, or poor by two independent raters, with any disagreements resolved via consensus with the other co-authors. While the JBI checklist used a different rating system – simply appraising studies as being either eligible or ineligible for inclusion based on the item responses – the raters also commented on whether these studies were good, fair, or poor to maintain consistency.

## 3 | RESULTS

### 3.1 | Study characteristics

Table 1 provides a summary of the main characteristics of the included studies. Three qualitative studies investigated ayahuasca and one investigated MDMA. Three open-label pilot studies investigated ketamine and psilocybin and one randomised clinical trial investigated MDMA. Three web-based survey studies were interested in psychedelics more broadly. Six case studies investigated ketamine treatment. While Williams et al. (2022) and Harding et al. (2021) included participants who reported a history of ED symptoms, they did not report on the participant's own experiences of psychedelics, but rather their perspectives regarding psychedelic compounds (i.e., efficacy and safety).

The majority of the studies included predominately females and the mean age of participants ranged between 23.4 and 43.5 years. The majority of the studies included a population of adults who reported a current or past ED diagnosis, while two included participants who reported current or past ED symptoms (LaFrance et al., 2021; Williams et al., 2022). Various forms of psychological support were reported in nearly half of the studies including trained therapists providing non-manualised therapy for participants before and/or



**FIGURE 1** Study selection process: Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flow chart. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

during a psychedelic experience, participants pursuing personal psychotherapy post-psychedelic experience, and participants having discussions with ceremonial leaders during and after their psychedelic experience (Brewerton et al., 2022; Knatz Peck et al., 2023; Lafrance et al., 2017; Ragnhildstveit et al., 2021; Renelli et al., 2018; Robison et al., 2022). Three qualitative studies utilised thematic analysis to identify key themes and patterns from the participant interviews, with the remaining studies utilising various ED and mental health questionnaires (see Table 1 for specific measures).

Quality assessment ratings, based on the quality assessment tools for quantitative, observational, and cross-sectional studies (NHLBI, 2014), can be found in Table 1.

## 3.2 | Synthesis of results

### 3.2.1 | The efficacy of psychedelics and psychedelic-assisted psychotherapy for individuals with eating disorders/eating disorder symptoms

The majority of participants across the included studies reported substantially reduced ED symptoms and/or comorbid symptoms (e.g., depression) following their psychedelic experience.

In LaFrance et al.'s (2017) study, 11 out of 16 participants reported reductions in ED symptoms following participation in an ayahuasca ceremony. One participant reported that the ceremonial ayahuasca experience helped distance them from their ED thoughts and triggers,



which led to a decreased need to engage in maladaptive coping behaviours. Another participant reported experiencing remission from their BED since the ceremonial ayahuasca experience.

Renelli et al. (2018) found similar reflections, with participants noting that their ceremonial ayahuasca experience led to a reduction/remission in disordered eating behaviours while simultaneously addressing difficult cognitions and emotions related to their maladaptive behaviours. Additionally, LaFrance et al. (2021) found that more frequent psychedelic use predicted higher emotion regulation, which predicted lower levels of disordered eating. There were similar reports from LaFrance et al. (2017) and Renelli et al.'s (2018) participants regarding the positive changes in their self-perception that occurred during and after their ayahuasca ceremony experiences. Participants reported increased insight and self-awareness (e.g., acknowledging the distortion of their ED thoughts), self-love (e.g., appreciating one's body), self-forgiveness (e.g., from shame), and spirituality (i.e., feeling connected and/or cared for by something greater than oneself), as a result of their ceremonial ayahuasca experience, and reported that these were important characteristics of the perceived therapeutic effect.

Three qualitative studies (LaFrance et al., 2017; Renelli et al., 2018; Williams et al., 2022) found that psychedelic use was associated with greater insight into the ED and the recovery process. Namely, participants believed ayahuasca to be more effective for ED treatment than conventional options because it allowed them to address the 'root cause' (i.e., deeper insight into their disorder) of their ED and helped them to understand the process of their recovery (i.e., how to treat and manage symptoms). One participant reported that their ayahuasca experience resulted in therapeutic progress that they had been unable to achieve after more than 10 years of standard psychotherapy (Renelli et al., 2018).

While ED symptom severity was highly variable in Knatz Peck et al.'s (2023) study of psilocybin-assisted therapy, results indicated clinically significant decreases in weight concerns at all follow-up sessions and clinically significant decreases in global EDE-Q scores for 4 out of 10 participants, although no lasting changes were recorded for shape concerns or the dietary restraint subscale. Further, functional impairment relating to disordered eating decreased significantly from baseline to 1 month follow-up. Interestingly, qualitative responses indicated that participants overwhelmingly found the treatment to be a meaningful experience (80%) that improved their overall quality of life (70%). However, the majority (90%) reported that one session of psilocybin-assisted therapy was not enough for recovery.

Mills et al. (1998) found an overall reduction in depression and compulsion scores that was sustained for several months, and Calabrese et al. (2022) found significant reductions in ED symptoms and increased acceptance of the self and the body, as well as social and emotional connection following ketamine infusions. It is noteworthy that, in both studies, ketamine was accompanied by another treatment (e.g., therapeutic ketogenic diet), making the unique effects of ketamine on ED symptoms difficult to discern. Ketamine was also investigated in several case studies (Dechant et al., 2020; Keeler et al., 2023; Ragnhildstveit et al., 2021; Robison et al., 2022; Schwartz et al., 2021; Scolnick et al., 2020). Consistent improvements were seen in depressive symptoms and suicidality across studies. Many participants also showed reductions in anxiety and ED symptoms; however, these improvements were less consistent than those found in depression. There were large variations in whether these improvements were sustained, raising the question of the long-term effectiveness of ketamine.

Spriggs et al. (2020) investigated the effects of a broad range of psychedelic substances in people reporting a lifetime ED diagnosis. While ED outcomes were not explicitly addressed, significant improvements were found in both depressive symptoms and psychological wellbeing 2 weeks after a psychedelic experience. Their results also pointed to the importance of emotional breakthrough as a potential mechanism for the effectiveness of psychedelics in ED treatment. The most commonly reported substance used was psilocybin ( $n = 14$ ), followed by LSD ( $n = 6$ ) and ayahuasca ( $n = 5$ ).

The only RCT examined the effect of three 8-h MDMA assisted therapy (MDMA-AT) sessions with 3, 90-min follow up sessions compared to inactive placebo-assisted therapy (PLAC-AT) in participants reporting PTSD symptoms as well as past or current ED symptoms. Of note, they excluded participants with active purging or low weight. They found a significant reduction in ED symptoms in MDMA-AT compared to PLAC-AT. Clinically meaningful change was found in both PLAC-AT and MDMA-AT in participants with an Eating Attitudes Test (EAT-26) score less than 20; however, only MDMA-AT reliably demonstrated clinically meaningful change in the at risk and clinical groups, based on EAT-26 scores.

### 3.2.2 | Caution regarding Adverse Events

Three studies identified participant concerns about consuming psychedelics (Harding et al., 2021; LaFrance et al., 2017; Williams et al., 2022). While LaFrance et al. (2017) showed that participants held largely positive

beliefs about ceremonial ayahuasca in the context of ED treatment, a few participants reported concerns regarding the preparatory diet that was required before engaging in their ayahuasca ceremony, as well as the tendency for people to purge during ayahuasca ceremonies. For some, it reminded them of disordered eating behaviours (e.g., restrictive food choices or purging after meals). However, none of the participants reported experiencing any harm from the preparatory diet or purging during the ceremony.

Williams et al. (2022) also found that some ceremony leaders reported concerns that the preparatory dietary restrictions and in-ceremony purging may encourage ED thoughts and behaviours, although most believed that these phenomena may be beneficial if utilised as part of the therapeutic process (e.g., introspection regarding ED purging behaviours during or after experiencing purging induced by ayahuasca). Further, although 74% of the sample in Harding et al.'s (2021) study reported having some concerns about possible weight gain, addiction, and negative side effects (e.g., long-term health impacts) from participating in a psychedelic treatment study for EDs, almost as many (70.5%) reported they would consider being part of such a clinical trial.

Knatz Peck et al. (2023) noted that whilst there were mild AEs observed in their clinical study such as nausea, headache, fatigue, and asymptomatic hypoglycemia revolving within 24 h, all participants tolerated the acute effects of psilocybin, with none reporting serious AEs. The same mild but manageable AEs were also reported by 30% of patients as well as discomfort with the sensation of sedation. The most common ketamine AEs included nausea, dizziness, and blurred vision. Some of these mild AEs were identified across ketamine case studies but were reported as manageable.

### 3.2.3 | The importance of psychological support for a therapeutic psychedelic experience

In studies reporting on psychological support, there was an overwhelming consensus on the importance and utility of therapeutic support at all stages of the psychedelic experience. Part of the therapeutic process of the ceremonial ayahuasca experience was associated with access to support from the ceremony leaders during moments of vulnerability (LaFrance et al., 2017). Half of the sample also reported receiving some form of 'integration support' (e.g., talk therapy) post-ceremony in an individual or group setting, although it was unclear whether this was completed by trained psychologists

(Renelli et al., 2018). Mills et al. (1998) also recommended that participants receive long-term psychological support following ketamine infusions, with a particular focus on addressing perfectionistic personality traits. Being provided with more knowledge about the long-term psychological benefits/side-effects of consuming psychedelics as part of treatment would help increase participants' willingness to engage in a psychedelic treatment study (Harding et al., 2021).

Qualitative patient data was collected in one ketamine case study. The patient – who had chronic and enduring AN for 15 years – reported the following after her fourth ketamine infusion: “I know this sounds ridiculous, but I am no longer anorexic. I had so many rules I didn't even know them. But they are gone. I can exercise because it feels good. It isn't that I have to. I can stop when I want to” (Scolnick et al., 2020, p. 3). The authors reported that the patient was very supportive of the publication and hopes that the treatment will be studied further to help others who suffered as she did.

Participants who received either MDMA-AT or PLAC-AT received supportive therapeutic sessions that involved working through traumatic memories, arriving at emotional resolution, and finding meaning in these events (Brewerton et al., 2022). Participants were encouraged to welcome and explore different emotions and understand how their symptoms impact their daily lives. Both MDMA-AT and PLAC-AT groups saw clinically significant reductions in symptoms in participants with less severe EDs, but that MDMA-AT was more effective for participants with higher ED symptom severity, suggesting an augmenting role of MDMA in the therapeutic process (Brewerton et al., 2021). Qualitative vignettes of patient experiences were also extracted from this study. One participant described how the treatment provided her an understanding at a visceral level that the therapeutic process could unfurl from there (Brewerton et al., 2021). A second participant reported that the treatment provided her insight into the role of control in her life, including its central role in her ED. She concluded that “I feel like finally I've really done something in therapy” (Brewerton et al., 2021, p. 4).

## 4 | DISCUSSION

The current systematic scoping review aimed to map and synthesise the existing literature on the participant reported efficacy and perspectives regarding psychedelics and psychedelics assisted therapies in the treatment of EDs. To our knowledge, this is the first systematic scoping review to provide a comprehensive synthesis of

both participant-reported efficacy and perspectives on psychedelics in the treatment of EDs.

All included studies found that overall, participants reported experiencing an improvement in their ED symptoms through the use of psychedelics with or without psychotherapy. One study noted that the effects of treatment were highly variable depending on the participant (Knatz Peck et al., 2023) and there was a variable treatment response to ketamine, with some participants seeing rapid and sustained improvements and some experiencing minimal or unsustained improvements in ED symptomatology.

Overall, participants reported that psychedelics, particularly ayahuasca, helped them attain greater insight into the nature of their EDs and the processes necessary for their recovery (Harding et al., 2021; LaFrance et al., 2017; Renelli et al., 2018; Williams et al., 2022). Participants noted the importance of having psychological support during and/or after a psychedelic session to enhance treatment safety, with some participants also commenting that the psychedelic treatment efficacy may be enhanced by receiving such support (Harding et al., 2021; LaFrance et al., 2017; Renelli et al., 2018).

Concerns over AEs included the potential for AEs related to restrictive dieting, purging, and addiction (Harding et al., 2021; LaFrance et al., 2017; Williams et al., 2022), as well as mild AEs such as nausea, headaches, and fatigue (Knatz Peck et al., 2023; Mills et al., 1998). Despite these potential risks, no serious AEs were reported across the studies.

#### 4.1 | Implications

Based on our findings in the current review, we offer several suggestions and implications that may be important to consider in future research on psychedelic assisted psychotherapies in EDs. Firstly, considering that psychological support may not only be pivotal to participant safety but also for increasing the efficacy of the treatment itself, researchers may need to investigate whether existing treatment modalities (i.e., Cognitive-behavioural therapy, acceptance and commitment therapy, dialectical behaviour therapy) can be integrated with psychedelic-assisted psychotherapy (e.g., Slosower et al., 2020). To date, studies investigating psychedelic assisted psychotherapies have adopted diverse treatment approaches. Although the presence of preparation, support and integration sessions are most consistently implemented, the therapeutic frameworks being used are far from consistent (Cavarra et al., 2022; Thal et al., 2024). Further, clinicians administering psychedelic-assisted psychotherapy should receive specialised training to ensure that such

treatments are delivered safely and effectively. Clearly defining and implementing therapeutic frameworks in the research and clinical practice of psychedelic assisted psychotherapy is critical to ensure the safety of patients.

Secondly, we found that psychedelics appear to enhance capacity for introspection and insight, in line with other qualitative psychedelic treatment studies such as those for major depressive disorder and smoking addiction (Al-Naggar et al., 2021; Noorani et al., 2018). These findings lend support to the hypothesis that cognitive flexibility may be a mechanism of psychedelic treatment (dos Santos et al., 2021). Considering that impairments in cognitive flexibility are found across the spectrum of EDs (Berthoz et al., 2022; Perpiñá et al., 2017; Tchanturia et al., 2012), it will be important for future psychedelic research to include task-based measures of cognitive flexibility as well as self-reported measures, such as the ED Flexibility Index (EDFLIX; Dahlgren et al., 2019), to further investigate whether changes in cognitive flexibility following psychedelic assisted therapy play a role in ED symptom improvement.

Finally, EDs are associated with physiological complications such as very high or very low body weight and cardiovascular issues resulting from electrolyte abnormalities associated with vomiting and misuse of diuretics (Cass et al., 2020; Sharp & Freeman, 1993). Therefore, the use of psychedelic drugs that may lead to nausea, vomiting, and are sometimes consumed in the context of restrictive cultural dietary practices (i.e., ayahuasca), may elevate the level of risk for AEs in the ED population. We found that while participants often reported concerns regarding the potential risk of AEs, the presence of supportive guides/therapists increased feelings of safety and no severe AEs were reported. The implementation of preparation sessions, the presence of supportive guides/therapists, and discussions on how to leverage potential ED behaviours during psychedelic experiences as an opportunity for insight should be rigorously researched to determine the level of risk to ensure patient safety.

#### 4.2 | Limitations and directions for future research

While the preliminary findings are promising, several notable limitations should be addressed. Firstly, the majority of the included studies were preliminary and had small sample sizes or were case studies, limiting the generalisability of those findings. Similarly, only one study employed double-blinding and most adopted a qualitative and/or survey design. The lack of double-blinding may contribute to biased positive results that are influenced by participant and clinician expectations

rather than the effects of the psychedelic substances (and accompanying psychotherapy in most cases). It is also important to note that, as psychedelic substances have recognisable subjective effects, effective blinding to condition is difficult. Possible remedies include measuring and controlling for expectancy effects and therapeutic alliance, practicing consistency regarding instructions and information given to participants and pre-registration of trial protocols (Muthukumaraswamy et al., 2021). It will be important for future research to design well-powered studies with larger samples to examine the therapeutic efficacy of psychedelics and psychedelic-assisted psychotherapies. Another notable limitation is that some participants reported only having a lifetime diagnosis of an ED (Lafrance et al., 2017; Spriggs et al., 2020), with some never receiving a formal diagnosis of an ED (Lafrance et al., 2021). Further, in the MDMA-AT study, participants with active purging and low BMI were excluded (Brewerton et al., 2022). Across studies, there was insufficient research on psychedelic assisted psychotherapy in underweight populations, which is particularly relevant when considering the potential for AEs and safety. This limits the extent to which these results may be generalised to the broader ED population.

Additionally, more than half of included studies employed a cross-sectional methodology, which required participants to complete a retrospective questionnaire or clinical interview about their experiences with psychedelics. As a result, participants were susceptible to recall bias regarding the type of psychedelics used, the dosages, and the perceived benefits or negative consequences. However, several clinical trials are currently examining the efficacy of psychedelics (primarily psilocybin) in the treatment of EDs including AN (Imperial College London, NCT04505189; COMPASS Pathways, NCT05481736) and BED (TRYP Therapeutics, NCT05035927), which will increase the quality of studies in this area and assist in refining psychedelic assisted therapy practice (e.g., type of psychedelic, dosage, timing). In addition, clinical trials will allow for an investigation of treatment effects over time. Long-term follow-up studies will be particularly important in the context of EDs, which often have a chronic course with frequent episodes of relapse (Miskovic-Wheatley et al., 2023).

Lastly, our review points to the importance of collecting data on patient experiences to understand their perspectives on psychedelic assisted psychotherapy more holistically. A continued dialogue between researchers, clinicians, and participants will be crucial moving forward to ensure that both the research and practice of psychedelic assisted therapy is appropriate, safe, and effective.

### 4.3 | Conclusion

Current therapeutic options for challenging to treat mental health disorders such as EDs have thus far demonstrated limited efficacy, leading researchers to search for novel and more effective treatments. Psychedelics and psychedelic-assisted psychotherapy may be likely candidates given the emerging evidence regarding their therapeutic benefits for EDs and co-occurring disorders (e.g., PTSD, mood disorders). Preliminary results from this systematic scoping review demonstrate that in general, a wide range of psychedelic substances are considered to be safe and effective from both participant perspectives and in self-reported measures of symptom improvement. Further research in large representative samples should focus on controlling for expectancy effects, testing different therapeutic frameworks, and identifying underlying mechanisms of therapeutic change to determine whether any psychedelic substance in particular is more appropriate for the treatment of EDs.

### AUTHOR CONTRIBUTION

Jayanthi Raman conceived the original idea of the review. All authors contributed to the conceptual design of the paper. Karolina Cuerva, Dean Spirou, Adrian Cuerva, and Chantal Delaquis contributed to the acquisition and screening of data. Karolina Cuerva took the lead in writing the manuscript and analysing and interpreting the data, with assistance from the other authors. All authors provided critical feedback which helped shape the final manuscript.

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### CONFLICT OF INTEREST STATEMENT

All authors confirm there being no conflicts of interest.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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