Modalities for Psilocybin-Assisted Psychotherapy: A Review

by

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Abstract

This paper will review the current literature on modalities used or proposed for psilocybin-assisted psychotherapy. Modalities have been offered for the treatment of depression, addiction, and the demoralisation of long term AIDS survivors. In comparing these modalities, I aim to highlight their similarities and differences, while also seeking any evidence to suggest the benefits of one modality over another. In reviewing the current literature, the intent is to learn best practices and then coalesce generalisable best practices for psilocybin-assisted psychotherapy. Given the early stage of modality creation in this field and the general knowledge regarding the similar efficacy of modalities, I hypothesize that there will not be evidence to promote a particular modality. However, I do believe that there will be commonly held best practices amongst the modalities which can be gleaned. Five modalities were found for study in this review with information found from a combination of completed studies, modality manuals, and explanatory articles. The result is that there is no evidence to suggest a best modality for psilocybin-assisted psychotherapy. There are, however, many generally accepted and evidence-based best practices. As researchers, therapists, or clients, I hope this work informs regarding current evidence in the field, best practices, and areas for future research.

Keywords: psilocybin-assisted psychotherapy, psilocybin, psychedelic-assisted psychotherapy, psychedelics

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Chapter One: Introduction

The psychoactive compound psilocybin, found in the natural form of fungi, has a long history of use, dating back to pre-Columbian Mesoamerican societies (Carod-Artal, 2015). Psilocybin, as the synthetic compound now used in Western research, was first synthesised in the late 1950s by Albert Hofmann (Pollan, 2018). Western research with psilocybin dates back to the 1960s, most notably with the Harvard Psilocybin Project and the Concord Prison Experiment. The 1950-60s saw a proliferation of *psychedelic-assisted psychotherapy* research until the early 1970s when psychedelics were classified in the United States as Schedule I, the most restricted schedule of substances (Belouin & Henningfield, 2018). Gorman et al. (2021) defined psychedelic-assisted psychotherapy as:

> The administration of a psychedelic in the context of a psychotherapeutic environment and relationship, with the therapist providing psychological support and in some cases specific intervention designed to align with the psychedelic experience and promote change in the target diagnosis. (p.3)

Very early research did not put into place any psychological support (Hollister, 1961; Leuner, 1962; Malitz et al., 1960; Rinkel et al., 1960; Rümmele & Gnirss, 1961). This was followed by research demonstrating that preparation and session support resulted in fewer adverse reactions (Chwelos et al., 1959; Leary, 1970; Leary et al., 1963, 1964; Metzner et al., 1965; Pahnke, 1969). Bogenschutz and Forcehimes (2017) stated that while some of this early research was conducted without support, most research combined psychedelics with psychotherapy with the belief that therapy was crucial to integrate the acute subjective experience. Research into psychedelic-assisted psychotherapy has highlighted both the pharmacological effects of the

psychedelic as well as the psychotherapy as the primary mechanisms of change (Bogenschutz & Forcehimes, 2017; Johnson et al., 2008).

Regarding the pharmacological effect of psilocybin-assisted psychotherapy (PAP), psilocybin, like other classic psychedelics, acts as a serotonin agonist, producing altered cognition, perception, and emotion in large part via the brain's serotonin 2A receptor (5HT2AR; Nichols, 2004). The 5HT2AR is involved in cognition, emotion regulation, memory, self-awareness, and introspection (dos Santos et al., 2016; Riba et al., 2006). The 5HT2AR is the primary mediator of the psychedelic effects (Gonzalez-Maeso et al., 2007; Kometer et al., 2012; Vollenweider et al., 1998). As well, the more a psychedelic binds to this receptor, the greater the reported subjective drug intensity (Madsen et al., 2019).

Psilocybin's affinity for the 5HT2AR seems to be related to various proposed mechanisms of change in PAP: the entropic brain hypothesis and the evocation of the *mystical experience* (ME). Taking into account brain imaging studies, Carhart-Harris et al. (2014) have proposed the entropic brain hypothesis, in which psychedelics work by interrupting reinforced brain patterns such as rumination in the case of depression or craving in addiction. This is seen by reduced function of the default mode network (DMN), which has been characterised as the brain's central orchestrator or the physical representation of the narrative-self or ego. Current research suggests that the 5HT2AR is involved in reducing the connectivity of the DMN (Carhart-Harris, Erritzoe, et al., 2012; Miller et al., 2016). It is suggested that psychedelics interrupt the reinforced cognitive and behavioural patterns via reducing DMN functionality. Psilocybin's action on the 5HT2AR increases neuroplasticity (dos Santos & Hallak, 2020) and reduced DMN functionality may increase cognitive flexibility and neuroplasticity (dos Santos et al., 2021). DMN disintegration is associated with participants' ratings of ego dissolution

(Carhart-Harris, Muthukumaraswamy, et al., 2016; Tagliazucchi et al., 2016), which is considered closely related to the ME (Nour et al., 2016). Mystical experiences are defined by common elements such as ineffability and transcendence of time and space (Pahnke, 1963). These MEs are specifically associated with 5HT2AR agonist classic psychedelics, suggesting this receptor's likely role (Carhart-Harris et al., 2014). Positive outcomes in psychedelic-assisted psychotherapy have been strongly correlated with MEs (Garcia-Romeu et al. 2014; Griffiths et al. 2016; Roseman et al. 2018; Ross et al. 2016) and their importance for long-term benefits is well known (Griffiths et al., 2006, 2011; MacLean et al., 2011).

Including psychotherapy alongside psychedelic administration began in the mid-20th century, with the two most common therapeutic models being psycholytic and psychedelic therapy (Bogenschutz & Forcehimes, 2017). Psycholytic therapy involved low to moderate doses of a psychedelic accompanied by psychoanalytic therapy, and psychedelic therapy involved high doses to enable a peak experience with the intention of lasting behaviour change. Horton et al. (2021) reported that the past 25 years of psychedelic-assisted psychotherapy research has not included psycholytic therapy. Research resumed in the early 1990s (Bogenschutz & Forcehimes, 2017) and currently continues.

Statement of the Problem

The question as to which therapeutic modality best serves psychedelic-assisted psychotherapy remains open. Psychedelic-assisted psychotherapy research generally has in common session procedures and basic psychological support, yet the theoretical orientation utilised has varied greatly (Sloshower, 2018). As most therapeutic modalities for psychedelic-assisted psychotherapy have been constructed for work with psilocybin, I will explore if there is evidence indicating which therapeutic modality is best for PAP.

Purpose of the Paper and Research Question

This paper aims to review the current proposed therapeutic modalities for PAP, exploring commonalities and differences. It will look at current practices, both general and modality specific, for preparation, dosing, and integration sessions. This will include aspects ranging from the number of sessions and guides to the content of the sessions. The research question is whether there are best practices and/or modalities that can be determined from a review of the literature. After reviewing the current general and modality specific practices for PAP in chapter 2, this paper will utilise the review to propose best practices for PAP in chapter 3. This particular research was chosen as PAP is a burgeoning field of research with no current literature comparing PAP therapeutic modalities. This review and proposed practices may be of use to researchers wanting an overview of PAP therapeutic modalities, therapists who would like to learn more about best practices currently proposed, and clients who are considering therapeutic or personal exploration of psilocybin use.

Theoretical Framework

Both general and modality specific approaches to PAP are framed from a client-centred lens. Psilocybin dosing sessions (DSs) are non-directive, allowing the participant's experience to naturally unfold (Doblin, as cited in Valentino, 2020). Most modalities also encourage preparation and integration sessions to be client-centred, other than the necessity for the sharing of logistics and certain modality-based interventions. As well, PAP is viewed as acting both pharmacologically and psychologically. Thus, PAP is explored both in its neurophysiological effects and in how it is best supported and enhanced psychotherapeutically. This means that both a medical and psychological framework are utilised. In addition, a transpersonal framework is also present as MEs are assessed and linked to positive outcomes of PAP. Finally, a multicultural

framework is presented in this paper as many voices are calling for psychedelic-assisted psychotherapy to become more inclusive.

Reflexivity and Positionality Statement

I identify as a Canadian White queer cis-woman of middle class status. My interest in this topic is born out of my own personal experience with psychedelics as a therapeutic medicine. I suffered from depression, anxiety, and suicidality for a span of two decades from my teenage years until my mid-thirties. While I found some temporary relief by way of therapy, exercise, nutrition, meditation, and other interventions, I remained unable to break out of my negative mental patterns. At age 33, I chanced upon hearing about ayahuasca and its healing capacities. A year later, I was able to partake in ayahuasca ceremonies in Peru which began my healing journey. I directly credit the healing power of ayahuasca with my healing from pervasive depression, anxiety, and suicidality. It is with great fortune that I was able to work with psychedelics in a legal setting in order to heal from my mental health issues. Due to my personal experience, I have continued to study these psychedelic medicines with the intention of working with them legally as a therapist as they become introduced into the medical model. This personal experience brings bias to my perspective as I have seen the healing potential of psychedelics in a therapeutic context in my own life and those of many others. I aim to remain as unbiased as possible, yet I acknowledge that I am currently an advocate of psychedelic medicines having valuable therapeutic potential when safely administered.

I also recognise that my privilege as a White middle class cis-woman allowed me the financial ability to pursue working with psychedelics. Their safe and therapeutic use generally remains out of reach for those with less privilege and means, arguably those that need help the

most. I hope that my continued study of these medicines will help to contribute to their legalisation and expanded access for all people.

I would also like to note my lack of traditional Indigenous knowledge and use of psilocybin and that this paper is focused on the available medical model research. While I am enthusiastic about the introduction of psilocybin and other psychedelics into the medical model, I also feel that Western culture should learn from and honour traditional ways of working with psychedelics and actively engage in reciprocity with the traditional cultures who have worked with and protected these traditional medicines.

Definition of Terms

- Dosing Session (DS): the session in which the psilocybin is administered. DS will cover varied terms used throughout the literature including psilocybin session, medication session or visit, and drug administration session.
- Guide: the individuals attending to the participants during PAP. Guide will cover varied terms used throughout the literature including guide, monitor, therapist, clinician, and staff.
- Integration Session: the therapeutic sessions after a DS. Integration sessions will cover varied terms used throughout the literature including integration session, debriefing session, follow-up session, and some phone calls. Some PAP modalities have modality-based sessions before, between, and after DSs. In an attempt to simplify this complexity, modality-based sessions or support meetings will be considered integration only when no further DSs follow.
- Mazatec: pre-Hispanic Indigenous people of Mexico, primarily living in the southern state of Oaxaca, in the mountainous Sierra Mazateca area (“Mazatec,” 2022).
- Mystical Experience: “traditionally described as comprising the perceived dissolution of the boundary between self and other, a sense of boundlessness, sacredness, ineffability, awe, and

the experience of contact with the transcendental or the Divine" (Pahnke, 1966; Richards, 2008, 2015, as cited in Podrebarac et al., 2021).

- Participant: the individual being administered the psilocybin. Participant will cover varied terms used throughout the literature including participant or patient.
- Preparation Session: the therapeutic sessions before a DS, preparing the participant for the DS. Preparation session will cover varied terms used throughout the literature including preparation session, psychoeducation session, and psychotherapy. Some PAP modalities have modality-based sessions before, between, and after DSs. In an attempt to simplify this complexity, modality-based sessions or support meetings will be considered preparation where they occur before DSs. Those that take place in between DSs will be considered preparation with an acknowledgement that integration is also likely to take place in these sessions.
- Psilocybin: a naturally occurring psychedelic compound found in over 200 fungi species which produces psychoactive effects by activation of the 5HT2AR ("Psilocybin," 2022).
- Psychedelic-Assisted Psychotherapy: "The administration of a psychedelic in the context of a psychotherapeutic environment and relationship, with the therapist providing psychological support and in some cases specific intervention designed to align with the psychedelic experience and promote change in the target diagnosis" (Gorman et al., 2021, p.3).
- Psychological Support Model: the general psychotherapeutic modality used with psychedelic-assisted psychotherapy which includes preparation, dosing, and integration sessions.

Significance of the Capstone

PAP has demonstrated positive outcomes for depression (Carhart-Harris, Bolstridge, et al., 2016, 2018; Davis, Barrett, May, et al., 2020), obsessive-compulsive disorder (Moreno et al., 2006), addiction (Bogenschutz et al., 2015; Johnson et al., 2016), and end-of-life distress, and demoralisation (Griffiths et al., 2016; Grob et al., 2011; Horton et al., 2021; Ross et al., 2016). Beyond psilocybin's potential for aiding those with various psychological issues, it has also been demonstrated to be of value to healthy participants (Griffiths et al., 2006, 2008, 2011). At 14-month follow-up, 94% of healthy participants of higher dose psilocybin sessions "rated the experience as the single most or among the five most spiritually significant experiences of their life" (Griffiths et al., 2011, p. 662). As well, at follow-up, high dose sessions sustained positive increases in behaviour, mood, attitude, life satisfaction, and social effects. In a review of 11 PAP studies, Horton et al. (2021) found that all but one demonstrated significant positive outcomes. These studies covered a breadth of participant concerns: healthy volunteers, depression and anxiety, obsessive compulsive disorder, addiction, end-of-life anxiety, and demoralisation. Given these positive results, it is unsurprising that twice in 2019, the US Food and Drug Administration deemed PAP worthy of breakthrough therapy status, expediting its movement towards becoming a prescription medication for depression (Saplakoglu, 2019).

It appears that psilocybin has beneficial pharmacological effects on its own (Carhart-Harris, Leech, et al., 2012; Carhart-Harris et al., 2014, 2017). While non-psychedelic pharmacological treatment is usually treated independently of psychotherapy (Bogenschutz & Forcehimes, 2017; Sloshower et al., 2020), treatment for depression and anxiety has been shown to be more effective when combining psychotherapy and medication rather than medication alone (Cuijpers et al., 2014). Thus, Sloshower et al. (2020) suggested that PAP sessions can be

potentiated by a combination of pharmacological and psychotherapeutic approaches while Johnson et al. (2008) suggested that therapeutic care is necessary for positive outcome. With this therapy, the psychedelic acts as an adjunct or enhancement of the psychotherapeutic intervention (Sloshower et al., 2020). While the pharmacological effect of psilocybin is indisputable and needs further research to understand its mechanics, the impact of the therapeutic modality used alongside this pharmacological intervention is likely larger than what has currently been demonstrated by research (Bogenschutz & Forcehimes, 2017).

Yet, many questions remain regarding optimal implementation of this therapy, from the dose to the therapeutic modality itself (Meikle et al., 2020; Sloshower et al., 2020). Modalities are in the process of development with current clinical trials (Watts & Luoma, 2020). While some research has implemented non-specific supportive psychotherapy, others have chosen evidence-based modalities (Sloshower et al., 2020). Non-specific therapeutic support, also termed the *psychological support model*, includes preparation, acute and peri-acute support during the DS, and integration (Carhart-Harris, Bolstridge, et al., 2018; Sloshower et al., 2020). It has been used in drug efficacy trials when the aim is to measure the psychedelic separate from therapeutic effects (Carhart-Harris, Bolstridge, et al., 2016). Carhart-Harris, Bolstridge, et al. (2018) stated the need for the psychological components within the current psychological support model to be better defined, controlled, and measured. In addition, they noted that PAP modalities are also still in need of increased definition, testing, and manualisation. The research is limited regarding evaluation of PAP structure and content, as well as efficacious therapeutic modalities (Bogenschutz & Forcehimes, 2017).

Sloshower et al. (2020) suggested that moderate to severe mental health issues would benefit from a specific therapeutic approach, even if the psychological support model also has

benefits. As well, they pointed out that without a specific therapeutic modality there will be increased variability among studies. They suggested that preparation and integration can be focused on certain psychological processes and insights in order to reinforce and amplify new learnings. In the systematised review of PAP by Horton et al. (2021), of 11 PAP studies only Griffiths et al. (2018) measured the effects of psychotherapy. While it did not utilise a specific modality, the results indicated that more therapeutic support resulted in better short and long term outcomes.

Thus, this paper will review the current PAP modalities to attempt to compare and contrast what is currently being proposed. After a thorough review of these modalities, chapter 3 will attempt to propose best practices for PAP based on the current suggestions and evidence. The intention is for this to be a useful reference for recognising the extent of what has been proposed and researched thus far and allowing a view of what has yet to be determined.

Outline of the Remainder of the Paper

Chapter two will provide a review of the current literature on PAP modalities. It will begin with an overview of the general therapeutic context for PAP, including the set, setting, and cast. Then, the psychological support model will be explained, which includes the basic format of preparation, dosing, and integration sessions. After this exploration of the more generally accepted structure for PAP, specific modalities for PAP will be reviewed. Here, a thorough comparison and analysis of the modalities will be undertaken. Next, in chapter 3, I will provide my proposed best practices for PAP based on the knowledge gained from the review of the literature.

Chapter Two: Literature Review

Therapeutic Context

Set, Setting, and Cast

Most researchers and therapists assume that the subjective and experiential effects of psychedelics contribute to their therapeutic outcome in addition to their pharmacological effects (Horton et al., 2021; Sloshower et al., 2020). Since the early research of the 1960s, it has been noted that these subjective effects are influenced by the establishment of a good *set* and *setting*, otherwise known as mindset and environment (Haijen et al., 2018; Hartogsohn, 2017; Leary et al., 1963; Leary et al., 1995). William Richards (2016), a pioneer of PAP whose involvement began in 1963, explained that psychedelics do not function as a simple pharmaceutical, but accelerate psychotherapy within a proper set and setting. In an unstructured or unsafe setting, he states that difficult experiences such as panic may result in a psychedelic experience proving harmful. Thus, most research places importance on these factors to enhance clinical response (Johnson et al., 2008). Carhart-Harris, Bolstridge, et al. (2018) noted the general assumption that psychedelics increase one's sensitivity to the context of the experience. This includes the set (e.g., expectations or state and trait factors) along with the setting (e.g., environmental factors or music). Gorman et al. (2021) additionally made note of the *cast*, which includes all staff the participant will experience throughout their PAP. They stated the importance of informing clients that their dosing experience will be directly affected by the set, setting, and cast. While generally accepted, there is a lack of research to determine set and setting factors contributing to positive outcome (Bogenschutz & Forcehimes, 2017).

Set. Set includes a client's intentions, expectations, and mindset (Hartogsohn, 2016, 2017). An expanded definition comes from Guss et al. (2020):

> "Set" refers to the conscious and unconscious parts of the individual leading up to the experience. This includes their beliefs, hopes, fears, traumas, personality and temperament, as well as their expectations and fantasies about psychedelic experiences and the therapists, themselves. In the context of clinical research, the participant's attitude toward the research setting, the medication, cultural attributions to psychedelics, the relationships with the therapists, as well as expectations for relief also constitute important parts of the participant's set. (p. I13)

This is demonstrated in research, as anxiety or depression before a session is significantly correlated with a negative DS experience (Metzner et al., 1965).

Rick Doblin (as cited in Valentino, 2020), founder and executive director of the Multidisciplinary Association for Psychedelic Studies, spoke of the inner-directed approach wherein the guide follows and supports the *inner healing intelligence* of the participant. This inner healing intelligence is seen as the psyche's innate capacity for healing akin to the body's ability to heal from a wound. With this in mind, a core approach of psychedelic-assisted psychotherapy has been the non-directive approach in which participants are able to engage in their experience without therapist influence and come to their own insights and meanings (Gorman et al., 2021).

Richards (2016), with his decades of experience, encouraged participants to trust their own minds, be open and receptive, and to bravely face difficult content. Richards (2015) is well-known for his mantra which he suggested to participants when navigating difficult content: "Trust, Let go, and Be open" (p. 35). He suggested that a participant and guide trust the unfolding of the session without trying to impose outside agendas (Richards, 2016). The

participant's ability to trust this natural unfolding is suggested to be dependent on the quality of the therapeutic relationship with the guide.

Expectations and mood before a psychedelic session have long been considered impactful on the acute psychedelic effects (Aday et al., 2020; Leary et al., 1963; Richards et al., 1977). Similarly, Haijen et al. (2018) found that a positive set was correlated with positive outcomes. A positive and open mindset to the experience is expected to enhance benefits while a negative or dysregulated mindset are suggested to increase the potential of adverse effects (Hartogsohn, 2016; McWilliams & Tuttle, 1973). If participants attempt to experientially avoid psychological content unfolding in the psychedelic experience, this may cause distress or harm (Gorman et al., 2021). Participants were more likely to have an ME when they were prepared and had clear intentions (Haijen et al., 2018). Preparation, addressing anxieties, and encouraging openness to the experience appeared to prevent challenging experiences. In looking at states and traits, they found that openness to experience and emotional stability were associated with increases in well-being. A recent systematic review showed that the traits of absorption, openness, and acceptance were correlated with increased MEs (Aday et al., 2021). The state of surrender was also shown to be an important predictor of psychedelic experience (Aday et al., 2021) as it has been correlated with MEs, ego dissolution, and a reduction of acute dread (Russ et al., 2019a, 2019b).

Setting. As defined by Guss et al. (2020):

> "Setting" refers to the physical space, environment, and context in which one experiences the drug's effects. Setting includes elements such as music, artwork, safety equipment, hospital, city, and state, etcetera and inhabitants of the space (therapists and participant). The participant's relationship with the therapists is a primary aspect of the setting. (p. I14)

Ambiance. Johnson et al. (2008) addressed the influence of setting or environment for DSs. They suggested that adverse outcomes can be minimised by an aesthetically pleasing environment. Strassman (2001) suggested that the medical environment of his DMT studies may have played a part in participants' negative experiences. Guss et al. (2020) stated that "the current standard in clinical psychedelic research is to create a warm, inviting, and private environment where participants can feel comfortable and safe to experience the medicine's intense effect and express themselves freely" (p. I14). Treatment rooms in studies generally resemble a living room rather than a research setting (Gukasyan & Nayak, 2021). This could include plants, art, warm colours, and comfortable furnishings (Guss et al., 2020). Johnson et al. (2008) suggested that participants be invited to lie down on a comfortable couch with eyeshades and headphones playing supportive music to minimise environmental distractions or a sense of obligation to interact with guides.

Safety. Simple safety measures are important, such as ensuring there are no dangerous objects in the room nor telephones, and that participants can access a private restroom (Johnson et al., 2008). Physical safety needs to be ensured, such as assisting participants in using washrooms and assuring they remain hydrated throughout the DS (Guss et al., 2020). As well, it is recommended to inform participants of safety equipment in case of medical concerns.

Music. Music was utilised in the early days of psychedelic therapy as a form of nonverbal support (Bonny & Pahnke, 1972; Grof, 1980; Hoffer, 1965) and continues to be used to this day (Kaelen et al., 2018). Richards (2016) suggested that music functions as a nonverbal support structure or safety net and is most important during the onset of the psychedelic effects as well as when approaching and during the peak of the experience.

Early research found that the careful selection of music was correlated with increased positive outcomes (Bonny & Pahnke, 1972). Kaelen et al. (2018) suggested that music can facilitate therapeutically relevant experiences as participants lay comfortably and focus inwardly while listening to a carefully designed playlist. Patients undergoing psychedelic therapy often refer to music as significantly influencing and being an integral part of their experience (Belser et al., 2017; Swift et al., 2017; Watts et al., 2017). All 13 participants in one clinical trial cited music as having a central role in their treatment experience (Belser et al., 2017). Music has been shown to have both a welcome and unwelcome impact on participants' subjective experience (Kaelen et al., 2018). Welcome impacts "included the evocation of personally meaningful and therapeutically useful emotion and mental imagery, a sense of guidance, openness, and the promotion of calm and a sense of safety" (Kaelen et al., 2018, p. 505). It is important to note that the welcome experiences included the evocation of unpleasant emotional experiences such as intensified grieving and increasing the openness to the expression of psychological conflicts (Watts et al., 2017). Unwelcome impacts "included the evocation of unpleasant emotion and imagery, a sense of being misguided and resistance" (Kaelen et al., 2018, p. 505). Dislike of the music was associated with reduction of the drug's effects, an increase of unpleasant emotion, and resistance. Psychedelics have been shown to strongly influence the emotion (Kaelen et al., 2015, 2017) and imagery (Kaelen et al., 2016) evoked by music, along with the perception of associated meaningfulness (Preller et al., 2017).

After interviewing participants one week after receiving two psilocybin sessions for treatment-resistant depression (TRD), Kaelen et al. (2018) found that music served to guide and ground the participant, while also facilitating psychological processes. Conversely, it was found that music could misguide the participant if it was dissonant with their emotions and thoughts.

They also found that the music experience was strongly correlated with reductions in depression 1 week post-DS, whereas self-rated drug intensity was not. This finding, in particular, shows that a positive therapeutic outcome is not a result of the drug's effect alone, but includes the music's impact on subjective experience. As well, they found that participants' liking of, resonance with, and openness to the music positively predicted the likelihood of an ME, while resonance and openness predicted experiences of insight. All these findings lend support to the original intention for using music in psychedelic therapy, that of enhancing meaningful therapeutic experience.

It is generally recommended that participants listen to the music through headphones (Johnson et al., 2008), with Guss et al. (2020) suggesting the necessity of the music also playing on a speaker in the room. Studies taking place at Johns Hopkins encourage the use of headphones for most of the session until the end when participants can sit on the couch and interact while music may still play in the background to offer continuity (Johnson et al., 2008).

Regarding music selection, Richards' (2016) opinion is that "strong, flowing, reliable structure appears most helpful, without unexpected changes in rhythm or words that would engage intellectual functions" (p. 12). He also suggested that music preferred by the participant is generally not the music which will be most helpful. Kaelen et al. (2018) found that ethnic, vocal, and (neo-) classical genres were the most appreciated. Participants also enjoyed the structure of the playlist, in which calmer music was selected for pre-onset, ascent, and descent of the psilocybin, with evocative music reserved for the period of peak effect. It has been previously suggested that the optimal playlist structure is one that matches the phases of the drug experience (Barrett et al., 2017; Bonny & Pahnke, 1972; Grof, 1980; Richards, 2015). Given the research conducted by Kaelen et al. (2018), they suggested that the optimal music experience for

participants would consider participant variables of liking, resonating with, and openness to the music. Knowing that these variables are highly individual and dynamic, they suggested that being able to adapt the music during a psychedelic experience may be valuable. This idea was also promoted by psychedelic therapy pioneers (Bonny & Pahnke, 1972; Grof, 1980; Hoffer, 1965). Kaelen et al. (2018) suggested that it is the guides' responsibility to adapt the music appropriately for the therapeutic benefit of the participants.

Cast. Guss et al. (2020) included the impact of therapists and others as part of the setting while Gorman et al. (2021) used the term cast in addition to set and setting to refer to the individuals present during the DS, including peers or other participants. Johnson et al. (2008) emphasised the influence of all staff on a participant's psychedelic experience. This is particularly true for the interpersonal environment created by the staff present for the psychedelic DS (Leary et al., 1964; Masters & Houston, 1966).

Guides. Johnson et al. (2008) referred to guides as *monitors* and stated that they have a large impact on how participants respond to a psychedelic. Guss et al. (2020) suggested that guides need to be mindful of how their training, perspective, personal history, and experience may affect their presence in DSs. Among the modalities reviewed in this paper, guides present at DSs vary in their level of qualification, with some not certified as therapists. Johnson et al. (2008) suggested that the guides' clinical sensitivity is more important than particular certifications. As is well known, therapeutic presence, demonstrated by honesty, warmth, respect, and flexibility is correlated with positive outcomes in therapy (Ackerman & Hilsenroth, 2003). Murphy et al. (2022) found that therapeutic rapport predicted greater emotional breakthroughs and better outcomes in PAP for depression. They suggested that this supports the idea that participants will be better able to surrender to the DS experience if they feel safe with

the guides. Gorman et al. (2021) stated that, “Therapeutic presence reflects full engagement in the moment-to-moment encounters with patients and establishes a mutual relational connection that builds trust” (p. 4). As well, Johnson et al. (2008) suggested that guides should have knowledge of adverse physiological and psychological reactions, highly developed relational skills, and familiarity with altered states of consciousness (e.g., meditation or breathwork). There has been some concern that therapists without their own psychedelic experiences may not be able to relate to participants as effectively (Bogenschutz & Forcehimes, 2017; Eisner & Cohen, 1958; Jensen, 1962), though this remains an open question as evidence shows that therapists are equally effective in treating alcoholism if they have not previously been alcoholics themselves (Culbreth, 2000; Project MATCH Research Group, 1998). Bogenschutz and Forcehimes (2017) also noted that personal psychedelic experience may also lead the therapist to make incorrect assumptions about the participant’s experience. However, Johnson et al. (2008) suggested that personal experience with altered states of consciousness could be helpful in increasing guides’ empathy for the participants' experience.

Johnson et al. (2008) recommended two guides during DSs, which has been the historical standard, so that one guide is able to leave if needed (e.g., using the washroom). There is no current evidence to suggest increased benefit from the addition of extra guides (Gukasyan & Nayak, 2021). Previous research has recommended the presence of a male and female guide (Grof, 1980; Grof & Halifax, 1977; Kurland, 1985) as it may engender increased security for the participant (Johnson et al., 2008). While studies have utilised guides of the same gender, Johnson et al. (2008) recommend against both guides being the opposite gender from the participant. However, as Wagner et al. (2019) pointed out, this binary view is based upon an essentialist and heteronormative understanding of gender which marginalises gender identities outside of this

binary. Anecdotally, they did not experience any issues in their treatment model with same gender guides and suggested that the greatest differences noted were amongst their expertise rather than gender.

Other Staff. Johnson et al. (2008) also noted that all individuals engaging with a participant before a session can have an influence on how the DS will unfold, thus they recommend that all personnel be informed of their potential impact. Staff administering questionnaires and explaining logistics should take care to establish a positive rapport with the participant to minimise the participant's negative mood before their session. They also recommended additional attention to this rapport with psychedelic work as set and setting have a large impact on the DS effects.

Post-Dosing Support Person. Guss et al. (2020) stated that a participant should only be discharged from the DS to a designated support person. This person should be a family member or friend who has been apprised of and understands the therapeutic work. They suggested that the guides should meet or speak with the support person before the DS. They should be informed of and assessed for suitability to provide care including safe transport home, providing a supportive non-intrusive environment, being on call for any needs, and communicating any adverse experiences to the guides.

Psychological Support Model: Preparation, Dosing Session Support, and Integration

It has been assumed that psychological support is necessary to minimise harms and maximise benefits with psychedelics (Carhart-Harris, Roseman, et al., 2018). Evidence has shown this to be the case (Haijen et al., 2018). Psychedelic-assisted psychotherapy in clinical trials has generally utilised the psychological support model involving three components: preparation, acute and peri-acute support during the DS, and integration (Carhart-Harris,

Bolstridge, et al., 2018; Sloshower et al., 2020). Within this largely accepted structure, the therapeutic modality employed during these three parts has not been consistent. Watts and Luoma (2020) noted that preparation and integration sessions are necessary for safety and the solidifying of improvements obtained in the DS, yet models for these sessions are lacking. Studies which offered only the psychological support model with no addition of a modality-based intervention were not included in this review.

Preparation Sessions

Content. Many things are established during the preparation sessions including: therapeutic rapport, psychoeducation regarding the session and modality, logistics, boundaries, and intentions (Sloshower et al., 2020). Obtaining informed consent from participants is more complicated with psychedelics as the experience is very subjective, requiring more time to discuss potential effects (Johnson et al., 2008). Preparation needs to address post-session effects and preparedness for integration, such as a re-entry plan (Gorman et al., 2021). Carhart-Harris, Bolstridge, et al. (2018) suggested that preparation sessions focus on beginning to understand the participant's history, establishing trust, and providing information on expected effects and how to navigate them. According to Johnson et al. (2008), personal history and feelings are discussed during these sessions primarily to establish trust and assure the participant that all is welcome, followed by the potential need for guides to understand content that may arise in session to be adequately supportive. As well, participants are aided in addressing and reducing resistance to the DS to allow for maximum benefit (Carhart-Harris, 2018; Carhart-Harris, Roseman, et al., 2018). Preparation sessions are used to help the participant prepare for challenging DS experiences, with advice including turning toward and engaging with difficult emotions or images, as well as accepting and surrendering to both psychological and somatic content

(Blewett & Chwelos, 1959; Masters & Houston, 1966). Discussions should include all potential psychological experiences and physiological sensations (Johnson et al., 2008). While preparing participants is certainly necessary, there is some question of how much to share as psychedelics have been shown to increase suggestibility (Barbosa et al., 2005; Dobkin de Rios et al., 2002). This prompts the question of how much preparation may influence what is experienced during a DS (Johnson et al., 2008).

Logistics. Johnson et al. (2008) suggested that one guide needs to be present at all preparation sessions with the second guide present for at least one as the participant may be left alone with them during the DS. Studies vary in having either one or two guides present at preparation sessions**.** Richards (2016) felt that at minimum participants should receive 8 hours of time with a guide over the course of 2 weeks before their DS. He suggested that this time together allowed therapeutic trust to be established and for the participant to become more honest and open to the process. With this foundation established, the participant would feel more reassured and grounded by the guide's presence. Also of note, Johnson et al. (2008) suggested that at least one preparation session should occur in the DS space to familiarise the participant. Finally, they also suggested that boundaries around touch should be addressed as touch can be reassuring for participants in the DS.

Dosing Sessions

Interpersonal support during the DS helps minimise adverse psychological reactions (Blewett & Chwelos, 1959; Chwelos et al., 1959; Masters & Houston, 1966; Pahnke, 1969). During and subsequent to the session, support is provided by the physical and emotional presence of the guides, such as empathic listening and reassurance (Carhart-Harris, Bolstridge, et al., 2018). Support during the session involves a non-directive approach in which the participant

is encouraged to inwardly experience, while also assuring safety and meeting needs (Sloshower et al., 2020). Johnson et al. (2008) suggested that guides should be vigilant for any suggestion of psychological distress. The psychedelic experience can bring up difficult past content and fundamentally challenge one's worldview (Barrett et al., 2016). Gorman et al. (2021) noted that psychedelics act as powerful catalysts, potentially evoking deep personal content. Painful content during a DS is valued as a chance to review, understand, and let go (Watts & Luoma, 2020). If anxiety escalates, Johnson et al. (2008) share that guides are to maintain a calm and empathetic presence. They suggested that participants can be reminded to surrender to what is arising, comforted by a gentle touch on the arm or shoulder, or reminded of where they are and when the session will end. Many study participants have stated that having their hand held was reassuring and grounding. They shared that in administering high doses of psilocybin to 54 participants, reassurance had been adequate to address all cases of acute distress. As the session wound down they encouraged participants to refrain from analysing or excessively communicating while the effects of the psilocybin were still present.

Integration Sessions

Bogenschutz and Forcehimes (2017) noted that "Even the most impressive psychedelic experiences are transitory, whereas the desired therapeutic effects are hoped to persist for much longer periods of time" (p. 10). Richards (2016) cautioned that while a psychedelic experience may provide insight towards behaviour change, the return to regular life requires integrative work to assure personal growth or else the insight will only remain a memory. He underlined the importance of psychotherapy and meditative procedures to assist the participant in taking insights from the session and implementing them into concrete changes in daily life. It is proposed that psychedelics can provide an experience of temporarily increased psychological

flexibility, yet whether this new awareness is maintained will partially depend on the therapeutic support offered (Watts & Luoma, 2020). If a guide can help the participant to clarify the session's content and lessons, participants are more able to identify and set goals. To illustrate the value of insight in helping participants to do the daily integrative work, Richards (2016) stated that, "After having glimpsed the top of the mountain, it is easier for many to maintain the motivation to struggle through the swamps, thickets and rocky terrain on the path that leads to the summit" (p. 11).

Content. Integration sessions involve reviewing the session, applying therapeutic techniques to maintain gains (Sloshower et al., 2020), processing session content, gleaning meaning and insights, and incorporating learnings into everyday life (Richards, 2017). Carhart-Harris, Bolstridge, et al. (2018) suggested that in integration, the guides engage in non-judgmental listening, potentially some interpretation of participant experience, and guidance for the maintenance of gains. Bogenschutz and Forcehimes (2017) suggested that integration sessions can enhance treatment as they may include a new understanding or experience of symptoms and new insight, behaviours, or strategies to manage them.

While there is primarily consensus around the importance of integration sessions, Sloshower et al. (2020) suggested that these sessions lack an agreed upon structure and are not tailored to differing participant issues. For example, Watts and Luoma (2020) shared that these sessions were not standardised in Psilodep 1, the PAP study for TRD (Carhart-Harris, Bolstridge, et al., 2016).

Logistics. Johnson et al. (2008) stated that there should be one or more integration sessions with at least the primary guide. In the Johns Hopkins studies, more than one integration session was provided only in the case of psychological difficulty (Johnson et al., 2008). In

contrast, Richards (2016) mentioned spending hours in integration over days and weeks following the DS. Bogenschutz and Forcehimes (2017) suggested that integration is ideally done within hours to a few days of the DS and can include additional therapeutic sessions over weeks and months. Watts et al. (2017) noted that some participants without sufficient support systems reported feelings of alienation and vulnerability after their DS, stating that they would have liked more integration sessions. The psychedelic experience is often described as ineffable, so can require much support to derive meaning and understand the applications to one's life (Watts & Luoma, 2020). As well, Johnson et al. (2008) noted that participants may feel more comfortable processing the experience with the guides, rather than others in their life, due to the unusual and intense nature of the experience.

Therapeutic Modalities: Overview

While PAP research has studied a wide range of issues, this paper will focus on major depressive disorder (MDD), tobacco addiction, alcoholism, and the demoralisation of long-term AIDS survivors. A therapeutic modality has been utilised or proposed for each of these issues, whereas only basic psychological support has been provided in other PAP research. This paper will review five therapeutic modalities: Acceptance and Commitment Therapy (ACT) and Accept, Connect, Embody (ACE) for depression, Motivational Enhancement and Taking Action (META) for alcoholism, Cognitive Behavioural Therapy (CBT) for tobacco addiction, and Supportive-Expressive Group Therapy (SEGT) for the demoralisation of long-term AIDS survivors. All modalities were manualised except for the SEGT modality, where the authors noted that guides trained using standard SEGT manuals rather than a manual specific to the study (Anderson et al., 2020). In addition, while the ACT and ACE manuals were available, the META and CBT manuals could not be found. The authors of these manuals were contacted but no reply

was received. Thus, this review most likely underrepresents what is included in these two modalities. Therapeutic modality information was obtained from the available manuals, the methodology shared in research papers, as well as articles proposing the modality. These modalities will be presented generally and then compared regarding guides, preparation, dosing, and integration sessions.

Therapeutic Modalities for Depression

Acceptance and Commitment Therapy.

Origin and Study Implementation. Sloshower et al. (2020) considered four modalities in creating a manualised therapy for PAP with MDD and concluded that ACT was best suited. It is currently being used in a double-blind clinical trial for MDD (ClinicalTrials.gov, number NCT03554174) with an estimated completion date of April 2023.

Modality Overview. ACT has proven to be on par with CBT for treatment of depression (Forman et al., 2007; Zettle, 2015). It targets the main characteristics of depression: rigid criticism, loss of hope, experiential avoidance, and loss of valued actions (Sloshower et al., 2020). The psychological flexibility model is the central component of ACT, and is defined by its founder, Steven Hayes, as "the ability to be in the present moment with full awareness and openness to our experience, and to take action guided by our values" (Harris, 2009, p. 12). The six core processes of ACT are focused on increasing psychological flexibility (Harris, 2009), which has been shown to mediate positive outcomes in therapy (French et al., 2017; Hayes et al., 2006; Twohig & Levin, 2017) and psychedelic-assisted psychotherapy (Close et al., 2020; Davis, Barrett, & Griffiths, 2020; Watts & Luoma, 2020; Zeifman et al., 2020). These processes are contacting the present moment, cognitive defusion, experiential acceptance, self-as-context (i.e., the observing self), clarification of values, and committed action (Harris, 2009). Qualitative

accounts from Psilodep 1 participants indicated that their experience was remarkably similar to ACT's psychological flexibility processes even when ACT therapy was not employed (Watts & Luoma, 2020). In particular, they noted two themes: reconnection (to self, others, and the world) and increased experiential acceptance (Watts et al., 2007). Thus, the ACT protocol for depression was created to enhance the development of these processes (Guss et al., 2020).

Accept, Connect, Embody.

Origin and Study Implementation. A new model to guide psychedelic-assisted psychotherapy was offered by Watts and Luoma (2020), based in part on the experience and data from the Psilodep 1 trial using psilocybin for TRD (Carhart-Harris, Bolstridge, et al., 2016). This model was then employed in the Psilodep 2 trial which compared the antidepressant escitalopram to two psilocybin DSs (Carhart-Harris et al., 2021).

Modality Overview. Akin to Sloshower et al. (2020), Watts and Luoma (2020) found that the core processes of psychological flexibility were experienced by participants in their psilocybin session. Thus, the ACE model utilises the psychological flexibility model, but reorganises the six core processes into three process pairs forming two triads of acceptance and connection (Watts et al., 2017). These processes were rearranged after considering clinical experience and qualitative data from Psilodep 1 in which participants identified these themes of acceptance and connection as central to the dosing experience. Acceptance involves a willingness to encounter present moment somatic and emotional content, even if painful, while connection involves tapping into meaning and transcendence (Watts & Luoma, 2020). ACE's acceptance triad includes three steps: let go, sense, and feel which respectively represent ACT's cognitive defusion, contacting the present moment, and experiential acceptance (Watts, 2021). The connect triad's subsequent three steps are: self, meaning, and intention, representing ACT's

self-as-context, clarification of values, and committed action. The embody portion of ACE underlines the entire process by acknowledging the importance of the whole-body experience, as it is suggested that meaning can be derived by accepting and embodying the experience (Watts & Luoma, 2020).

The ACE model is used flexibly, serving as a framework to help participants accept challenging content, connect to positive content, and remain embodied (Watts & Luoma, 2020). ACE principles are added where they can naturally reinforce a participant's process rather than being taught or imposed, as reports from Psilodep 1 showed that participants preferred a client-directed approach.

Therapeutic Modalities for Addiction

Motivational Enhancement and Taking Action.

Origin and Study Implementation. Bogenschutz and Forcehimes (2017) created an integrated modality for PAP in the treatment of alcoholism. Their therapeutic model integrates alcohol-focused therapy used for PAP in the treatment of alcoholism. META is an alcohol-focused therapy utilising a combination of Motivational Enhancement Therapy (MET) and CBT. This model was used in a proof-of-concept study (Bogenschutz et al., 2015) and a recent double-blind trial (ClincalTrials.gov, number NCT02061293) completed in July 2021 which is yet to be published.

Modality Overview. MET interventions focused on motivation are enhanced by CBT's focus on taking action (Bogenschutz & Forcehimes, 2017). A meta-analysis of MET for substance use supports this modality as an evidence-based treatment (Lenz et al., 2016). While MET focuses on increasing motivation for change (Guydish et al., 2012), Bogenschutz and Forcehimes (2017) noted that participants demonstrated an already high motivation for change

after dosing session 1 (DS1). Thus, META puts a greater emphasis on exploring goals for change and related strategies than MET.

Cognitive Behavioural Therapy.

Origin and Study Implementation. Johnson et al. (2014) utilised CBT with psilocybin sessions for the treatment of tobacco addiction. These authors currently have another study underway treating smoking cessation, comparing a course of CBT with either one psilocybin session or 10 week nicotine patch treatment (ClinicalTrials.gov Identifier NCT01943994) with an estimated completion date of December 2023.

Modality Overview. Johnson et al. (2014) utilised smoking cessation CBT (Marks, 1993; Perkins et al., 2007) mainly based on the Quit for Life program (Marks & Sykes, 2002; Sykes & Marks, 2001). For smoking cessation, the Quit for Life program has been proven effective in randomised clinical trials (Hollis et al., 2007; Orleans et al., 1991; Swan et al., 2003), and CBT is the most popular behavioural intervention (Hernández-López et al., 2009). Interestingly, Hernández-López et al. (2009) found that ACT resulted in more than five times the long-term abstinence than CBT for smoking cessation. This prompts the query of whether the ACT model of Sloshower et al. (2020) could be more useful with PAP for tobacco addiction. The CBT interventions focused on increasing motivation, focusing on reasons to quit, financial and health costs of smoking, cognitive reprogramming, and preparation for withdrawal (Johnson et al., 2014).

Therapeutic Modality for Groups

Psychedelic Group Therapy: Overview. Current research on psychedelic-assisted psychotherapy has been almost exclusively with individual therapy, though psychedelics were used in group settings for centuries (Guerra-Doce, 2015). Psilocybin containing mushrooms were

consumed by a number of Indigenous groups in pre-hispanic Mexico. In fact, researchers discovered psilocybin through one of these groups, by way of a Mazatec communal ritual (Sabina & Wasson, 1974). There is strong anthropological evidence of the safety and efficacy of group psychedelic rituals (Dobkin de Rios, 1972; Harner, 1973; Labate & Cavnar, 2014, 2016). Early research in psychedelics involved group administration (Leary et al., 1965; Pahnke, 1963), demonstrating the efficacy of group-based psychedelic therapy since the 1960s (Hausner & Dolezal, 1966; Jensen, 1962; Trope et al., 2019). Yet, the last psychedelic group therapy experimental study took place in 1975 (Trope et al., 2019). Kettner et al. (2021) suggested that the collective phenomena of group psychedelic therapy are underexplored and warrant further research.

Group therapy is suggested as an economical modality which also helps to reduce social isolation, shame, and stigma (Trope et al., 2019). Group therapy is time and cost efficient while also demonstrating equivalency to individual therapy (Burlingame et al., 2016), though this has not been tested with psychedelics (Trope et al., 2019). Psilocybin trials for TRD have highlighted social connection as a potentially fundamental mechanism of positive outcome (Carhart-Harris, Erritzoe, et al. 2018; Watts et al. 2017). Social connection is well known as a determinant of mental and physical health (Alexander, 2010; Hari, 2019). Kettner et al. (2021) collected the largest prospective sample to date (n=886) regarding the quantitative assessment of psychedelic group therapy's psychosocial effects. They found that the extent of experienced *communitas*, "an intense sense of togetherness and shared humanity," was significantly correlated with enduring improvements in wellbeing, connectedness, and other health outcomes after the psychedelic session (Kettner et al., 2021, p. 11). The enduring nature of communitas beyond the psychedelic session was mediated by participant self-disclosure. The strongest association was between

communitas and social connectedness, such that participants' sense of belonging extended into their personal social environment. Bradberry et al. (2017) noted that participants have consistently requested to be connected with other participants and have affirmed that these connections have been vital for sharing ineffable experiences and solidifying gains.

Supportive-Expressive Group Therapy.

Origin and Study Implementation. Anderson et al. (2020) conducted the first modern clinical trial for psychedelic-assisted group therapy. The DS was experienced individually, save for one brief exercise with a partner at the outset, while group sessions were only for therapy outside of the DS. Their study examined psilocybin-assisted group therapy for demoralisation in older male long-term AIDS survivors. They noted that there was no data regarding modalities for use with long-term AIDS survivors or the use of psychedelic therapy for people living with HIV (PLWH).

Modality Overview. SEGT is described as a "palliative care-focused existential psychotherapy that prioritises 'here and now' processing, mutual support, 'detoxifying death' and emotional expression" (Anderson et al., 2020, p. 4). Heckman et al. (2013) shared that SEGT addresses issues of those with chronic illnesses, such as HIV or AIDS, by encouraging the expression of feelings regarding existential issues such as isolation, dying, and reduced freedoms. The SEGT modality was modelled on Brief SEGT (Classen et al., 1993) and its adapted form for PLWH (Heckman, 2013; Maldonado et al., 1996). Anderson et al. (2020) further adapted this for its use with PAP. Using SEGT with PLWH or AIDS has shown a reduction in depression and psychiatric symptoms (Kelly et al., 1993). Compared with a group CBT intervention for PLWH, research has shown equivalent efficacy with SEGT (Mulder et al.,

1994) or an improved outcome with SEGT (Kelly et al., 1993). Anderson et al. (2020) stated that meaning-centred group therapy demonstrates the best outcomes for people with serious illness.

Therapeutic Modalities: Summary

Guides

Credentials. Apart from the ACT modality, all modalities had either a psychologist or psychiatrist as their lead guide. The ACT modality also accepted a master's prepared social worker or psychiatric nurse for both the lead and co-guide (Guss et al., 2020). Co-guides for other modalities varied. The ACE modality added allowance for a psychedelic researcher or physiotherapist (Watts & Luoma, 2020). The CBT modality required only one guide to be a doctorate level psychologist with the other one to two guides being study staff (Johnson et al., 2014). The META modality did not clarify (Bogenschutz & Forcehimes, 2017). The SEGT modality only expanded to other credentials for the DS co-guide, allowing for social workers, chaplains, and an internist (Anderson et al., 2020).

Training. Bogenschutz and Forcehimes (2017) stated that therapists should be trained in any treatment modality provided. All modalities have been manualised in some form, though not all modalities mention training. Sloshower et al. (2020) stated that the therapists for the ACT modality received only a modified training. This training far exceeded training for the other modalities, involving videos, readings, and 4 days of in person training. The ACE modality has its own manual, but no training is mentioned (Watts & Luoma, 2020). The META modality mentioned that guides were trained but provided no details (Bogenschutz & Forcehimes, 2017). The CBT modality is a manualised intervention and a doctoral psychologist on each team was trained in the study intervention and the delivery of psilocybin sessions (Johnson et al., 2014).

The SEGT modality utilised manuals already created for work with PLWH and had a half-day training with role plays (Anderson et al., 2020).

Number. The number and types of guides varied. With the ACT modality, therapy sessions are conducted by one therapist in contrast to many psychedelic-assisted psychotherapy protocols which involve two (Sloshower et al., 2020). This one guide is joined by the study physician for the DS as well as some preparation and integration sessions. The ACE modality had both guides present for all in person sessions and only the lead guide for calls (Carhart-Harris et al., 2021). The META modality had two guides present for all sessions if possible yet also allowed and even suggested having only one guide for META sessions with the other guide responsible for preparation and integration sessions (Bogenschutz & Forcehimes, 2017). While they had two guides present for the DS, one could be substituted so long as the participant had met them twice previously. The CBT modality had two to three guides who were present for all sessions (Johnson et al., 2014). The SEGT study had two guides at most sessions with the possibility of one at debrief sessions and interestingly could have a different second guide at DSs (Anderson et al., 2020).

Preparation Sessions

Frequency and Duration. The modalities vary quite broadly regarding the number of preparation sessions. The ACT modality had only one preparation session of 2 hours before each of the two DSs, though Guss et al. (2020) stated that this was due to study logistics and that this content may be better delivered over the course of several sessions. The ACE modality began with two in person sessions totalling 4.5 hours and one phone session of unknown length pre-DS1, then reducing to one phone session of unknown length before the second DS (Watts & Luoma, 2020). The META modality had four sessions totalling 6 hours pre-DS1, three sessions

totalling 3 hours pre-dosing session 2 (DS2), and four sessions totalling 4 hours pre-dosing session 3 (DS3; Bogenschutz & Forcehimes, 2017). The CBT modality had four sessions totalling 6 hours pre-DS1, two sessions totalling 1.5 hours pre-DS2, and six sessions totalling 4.5 hours pre-DS3 (Johnson et al., 2014). The SEGT modality had five, with an individual session of 1.5 hours plus four group sessions for a total of 7.5 hours (Anderson et al., 2020). Thus, none of the studies met Richards' (2016) suggested minimum of 8 hours. Looking at the total preparation hours per DS, there is an average of 2 hours for ACT, 2.25 hours plus calls of unknown length for ACE, 4.3 hours for META, 3 hours for CBT, and 1.5 individual session hours plus 6 hours of group sessions for SEGT. Thus, the range of average preparation time per DS was 1.5-4.3 individual hours and 2-7.5 hours when group sessions were included.

Content.

General. All modalities except for the CBT modality made mention of establishing rapport with the participant during preparation sessions. They all included the discussion of DS logistics. All modalities except for the SEGT modality mentioned discussion of the participant's current and past life history, with the ACT modality specifically targeting this in the context of depression. Grounding techniques such as breathing, visualisation, or meditation practices were mentioned being taught in all but the META modality. Three modalities, to the exclusion of META and CBT, stated that participants were prepared with tips regarding how to navigate the emotional content of the DS. All but the META modality mentioned helping participants to set an intention for the DS.

Modality Specific. Regarding frequency and duration, all modalities explicitly taught some aspects of the modality in preparation sessions. However, the amount of time spent on specific modality content varied greatly. The ACT and ACE modalities incorporated it

respectively within the one 2 hour and one 3 hour session of in person time alongside general preparation content (Sloshower et al., 2020; Watts & Luoma, 2020). The META modality offered two sessions totalling 2 hours (Bogenschutz & Forcehimes, 2017). The CBT and SEGT modalities offered 6 hours over four sessions, the former mixed with other preparation content, and the latter within a group therapy context (Johnson et al., 2014; Anderson et al., 2020).

Regarding content, the ACT modality focused on identifying prominent processes of psychological inflexibility in the participant's depression narrative and teaching about the six processes of psychological flexibility to prime awareness of them during the DS (Guss et al., 2020). The focus was on helping the participant to reinforce or address blocks to psychological flexibility behaviours as a direct means to alleviate depression symptoms (Sloshower et al., 2020). In addition, it emphasised that the participant would benefit from a direct experience of these processes during the DS. This direct experience could introduce processes which are new for the client and could be reinforced during integration. It could also highlight inflexibility processes which block flexibility, to then be addressed in integration. In the second preparation session pre-DS2, psychoeducation is continued regarding processes and related behaviours as well as an exploration of how psilocybin and certain practices (e.g., mindfulness) could move the participant forward.

With the ACE modality, preparation sessions were standardised yet also allowed for much flexibility (Watts & Luoma, 2020). ACE concepts were only presented in the third preparation session pre-DS1 when the guides offered DS tips such as accepting and connecting with what arises and focusing on body sensations (Watts, 2021). They were used throughout these sessions but not explicitly taught. The third session ended with an ACE guided

visualisation exercise to allow the participant to experientially practise accepting, connecting, and embodying their emotional experience utilising all the steps of the triads.

With the META modality, pre-DS1 sessions used MET interventions including clarifying motivations for change, the provision of feedback regarding the participant's baseline data (e.g., drinking percentile and consequences), a values card sort, and exploring the discrepancy between values and actions (Bogenschutz & Forcehimes, 2017). Pre-DS2 preparation continued working with goals, incorporated experiences from DS1 which relate to values, and created a treatment plan for future sessions. Pre-DS3, sessions were more flexible and individualised to the participant's needs: reviewing and revising the treatment plan, engaging in activities (e.g., 12-step, mindfulness practice, etc.), reinforcing progress, reengaging the participant, and continued exploration of DS experiences.

CBT modality teachings were primarily based on the Quit For Life program (Marks, 1993). Over the course of the four preparation sessions pre-DS1, participants clarified their most important reasons to quit smoking and created a brief motivational statement (Johnson et al., 2014). In addition, two aspects from another smoking cessation program (Zernig et al., 2008) were used in all preparation sessions: guided imagery exercises and the smelling of a scented oil before all exercises which participants were then encouraged to smell when feeling the urge to smoke (Johnson et al., 2014). In the first session, participants signed a contract to quit with DS1 as the target quit date. They were then introduced to a smoking diary and the NURD program which asks participants to read negative statements about smoking when they smoke. The smoking diary was then reviewed in all subsequent pre-DS1 sessions. Session 2 involved the exploration of health and financial costs as well as reasons to quit vs. continue and used the WEST-D program which involved reading a card during urges with intent to explore and

deprogram the trigger. In the third session, there was discussion of previous quit attempts, the likelihood of weight gain, and reframing withdrawal as recovery. The final pre-DS1 session discussed preparing to quit and dealing with urges after the target quit date. The focus of the two sessions pre-DS2 and the six pre-DS3 was to support abstinence, review CBT techniques, and continue with the scented oil and guided imagery exercises.

As mentioned previously, the SEGT modality was adapted for use with PAP (Anderson et al., 2020). Some adaptations were made with respect to the DS, such as teaching breathing exercises and guided meditations instead of self-hypnosis. These exercises constituted the first 5 minutes of each session, focusing on self-compassion and mindfulness with the aim of providing useful techniques for the DS. They did not provide much information regarding the SEGT sessions, so further details were obtained from one of the manuals (Maldonado et al., 1996) the guides studied. The manual stated that here and now processing encourages participants to work on problems experientially rather than abstractly. Mutual support was fostered via the shared experiences and quick intimacy of the group environment in contrast to the isolation PLWH often feel. Detoxifying death helped participants to face fears about death to build tolerance and illuminate ways to address these fears. Finally, emotional expression helped participants to feel and see that they can tolerate emotions, as they often feel they need to remain strong for themselves and others.

Dosing Sessions

Frequency and Duration. The ACT modality had two 8 hour DSs, 4 weeks apart (Sloshower et al., 2020). The ACE modality had two 4-6 hour DSs 3 weeks apart (Watts, 2021). The META modality suggested three 8 hour minimum DSs, 4 and then 30 weeks apart (Bogenschutz & Forcehimes, 2017). The CBT modality offered three 8 hour DSs at 2 and 6

weeks apart (Johnson et al., 2014). The SEGT modality had one DS, done individually, which involved 5-6 hours with psilocybin plus unspecified time spent with another participant in grounding exercises before and debriefing after (Anderson et al., 2020). These took place over a 1-2 week period midway through the 4-5 weeks of SEGT group sessions. The number, length, and spacing of DSs are clearly not standardised.

Content.

General. All modalities used the same setting: the participant laid down on a couch or bed, wore eyeshades and headphones, and listened to a preselected music playlist. They all had two guides with the CBT modality allowing for the possibility of a third guide. While the ACE and CBT modalities had the same guides from the preparation sessions in the DSs, the other modalities allowed the second guide to be someone participants had only briefly met, or in the case of the SEGT modality, possibly had not met. All modalities asked guides to be as non-directive as possible, with more direction and support available if the participant experienced distress. They all encouraged participants to direct their attention inward. Except for the SEGT modality, all modalities mentioned encouraging participants to surrender to the experience. All but the META and CBT modalities specified that if a participant began to engage the guides in talking, the guides were to only engage briefly before redirecting the participant towards an inward focus. All but the CBT modality mentioned checking in with participants approximately each hour to make sure they were okay and/or to assess vital signs. Only the ACT and ACE modalities mentioned that guides would respond to requests for touch with boundaries previously negotiated in preparation (Guss et al., 2020; Watts, 2021). These two also mentioned that the participant was free to move about the room if desired, though ACT would encourage them to return to lying down with an inward focus after a brief period.

Modality Specific. The ACT modality had guides silently make note of any experiences of psychological flexibility or inflexibility during the session (Guss et al., 2020). The ACE modality allowed use of some phrases to guide the participant to accept, connect, and embody their visions and feelings (e.g., "What does it want to show you?", "Where do you feel it in your body?"; Watts, 2021). The CBT modality had participants read their brief motivational statement before taking the psilocybin and participate in a guided imagery exercise at the end (Johnson et al., 2014). The SEGT modality had the participant start their DS day with breathing exercises and guided meditation with another participant and their guides (Anderson et al., 2020). As well, to foster emotional support, at the beginning of the day, they were given a letter from a participant who had completed their DS the previous day.

End of Session. All modalities provided an opportunity to share about the experience at the end of the session. The ACT modality invited participants to share a narrative of their experience which was then provided as notes for the participant to take home as a memory aid (Guss et al., 2020). The ACE modality noted that there was some sharing at the end, but that this mostly took place the next day during integration (Carhart-Harris et al., 2021). The META and CBT modalities had participants write a narrative of their experience to be shared later in integration (Bogenschutz & Forcehimes, 2017; Johnson et al., 2014). With the META modality, there was some verbal processing at the end of the session with the narrative to be written that evening at home, whereas CBT had the participant write the narrative at the end of the session itself. The SEGT modality asked participants to write an emotionally supportive letter to the next day's participants, presumably at the end of the session (Anderson et al., 2020). Debriefing took place at the end of the session together with the other participant and guides with whom they

started the day. As well, one guide made notes of the participant's phrases during the DS, which was provided to the participant at the end of the session.

Integration Sessions

Frequency and Duration. The ACT modality had two 1-2 hour integration sessions, the day and week after the two DSs (Sloshower et al., 2020). In addition, there were two 1 hour follow-up integration sessions at 2 and 4 weeks post-DS2. The ACE modality made no mention of duration for any of the integration sessions. It had one integration session the day after the two DSs with an integration call at 1 week post-DS1 and 3 weeks post-DS2 (Carhart-Harris et al., 2021; Watts & Luoma, 2020). Optional integration calls were offered and chosen by all participants (Carhart-Harris et al., 2021). The number of calls was uncertain as Watts (2021) stated that there were three calls offered in total while Carhart-Harris et al. (2021) stated that were six. The ACE modality also made mention of unlimited care calls with a psychology assistant (Watts, 2021). The META modality had one 2 hour integration session after each of the three DSs plus two additional 1 hour META integration sessions following DS3 (Bogenschutz & Forcehimes, 2017). The CBT modality provided a 1 hour integration session the day after the three DSs, daily phone calls of less than 5 minutes for 2 weeks post-DS1, and two additional 45 minute sessions after DS3 (Johnson et al., 2014). The SEGT modality provided a 2 hour integration the day post-DS and four weekly 1.5 hour SEGT sessions (Anderson et al., 2020). Looking at the total integration hours per DS, there is an average of 3-5 hours for ACT, an unknown number of hours for ACE, 2.7 hours for META, 1.5 hours plus approximately 20 minutes of phone calls for CBT, and 2 hours individual plus 6 hours of group sessions for SEGT. Thus, the range of average integration time per DS was approximately 1.5-5 individual hours and 1.5-8 hours when group sessions were included. If the CBT modality's 5 minute phone calls are

included, the minimum integration time is approximately 1.7 hours. These averages do not include the integration time from the ACE modality.

Content.

General. All modalities use the integration sessions to listen to the participant's narrative of their DS experience. The ACE, META, and SEGT modalities invited participants to explore the meaning of their experiences and how this might translate into actionable items. The ACT modality specifically did not prioritise meaning making, despite acknowledging its importance in psychedelic integration, as there was concern that this might reinforce depressive patterns of thought and behaviour (Sloshower et al., 2020). The CBT modality made no mention of meaning making (Johnson et al., 2014). The SEGT modality encouraged participants to write as much as possible in subsequent days to facilitate memory of and engagement with session content (Anderson et al., 2020). The ACT modality was the only modality to make mention of addressing termination and plans for post-study follow-up care (Sloshower et al., 2020).

Modality Specific. Regarding frequency and duration, as with preparation sessions, integration sessions included modality specific content and varied in amount. The ACT modality incorporated the modality into the four sessions totalling 4-6 hours (Sloshower et al., 2020). The ACE modality incorporated modality content within the two in person sessions of unknown duration the day after DSs (Watts & Luoma, 2020). The META modality involved modality content in all of the integration sessions with two 1 hour META specific sessions post-DS3 (Bogenschutz & Forcehimes, 2017). The CBT modality utilised modality techniques within the two 45 minute support meeting sessions post-DS3 (Johnson et al., 2014). Finally, the SEGT modality had four 1.5 hour modality integration sessions for Cohort 1 and six for Cohorts 2 and 3 (Anderson et al., 2020).

Regarding content, the ACT modality explored DS experiences of psychological flexibility and inflexibility to reinforce the former and explore the blocks causing the latter (Sloshower et al., 2020). Evoking these experiences in integration sessions was used to remember new ways of being and to consider reinforcing practices which may help participants moving forward (Guss et al., 2020). The ACT modality's clarification of values and commitment to values-based action was also explored, with consideration of how the DS experience has highlighted values and actions that might be taken. The final two sessions included an assessment of changes in psychological flexibility, a review of how the therapy helped clarify ACT processes, and a review of committed action taken.

As with the ACE modality's preparation sessions, integration sessions were standardised but allow for flexibility (Watts & Luoma, 2020). The ACE modality did touch on modality pieces informally during integration and directly implemented a modality-based visualisation exercise in the sessions the day following DSs (Watts, 2021).

The META modality used some motivational interviewing techniques in the sessions the day after DSs such as discussing any changes in their relationship to alcohol and their desire to change drinking behaviour (Bogenschutz & Forcehimes, 2017). The final two META focused sessions post-DS3 continued to be flexible like the sessions between DS2 and 3. The participant's plan was reviewed and revised, and content was individualised to that plan. This could include activities ranging from 12-step, mindfulness, or CBT among others. The participant's DS experience continued to be explored, progress was reinforced, efforts were supported, and barriers were addressed.

The CBT modality offered modality-based content in the last two support meetings post-DS3: supporting smoking abstinence, reviewing CBT techniques, guided imagery exercises, and continuing to smell the scented oil before exercises (Johnson et al., 2014).

SEGT's modality specific sessions varied with four for Cohort 1 and six for Cohorts 2 and 3 (Anderson et al., 2020). These sessions continued to focus on "'here and now' processing, mutual support, 'detoxifying death' and emotional expression" (Anderson et al., 2020, p. 4).

Summary and Synthesis

Themes

Modality Overview. With depression, the modalities were third-wave CBT and based on ACT. These modalities were client-centred and focused on acceptance and mindfulness, with the ACE model adding an embodiment focus (Watts & Luoma, 2020). The therapeutic models for addiction were based on second-wave CBT, focusing on eliciting goals and motivation. Finally, with the group therapy for long-term AIDS survivors, SEGT is based on existential therapy (Classen & Spiegel, 2011). This tailoring of modality to indication is exactly what Sloshower et al. (2020) have recommended, hoping that certain indications will benefit from particular modalities. However, research into determining which modality might suit which indication is yet to be done (Bogenschutz & Forcehimes, 2017; Carhart-Harris, Bolstridge, et al., 2018; Horton et al., 2021).

Participants. As most of these clinical trials were pilot studies, the participant number tends to be low, ranging from 10-18 except for Psilodep 2 which had 59. As this field of research progresses, there will be a need to work with larger sample sizes. With gender, there tended to be more male participants than female in every completed study (i.e., other than the ACT study in trial), ranging from 50-66% males apart from the SEGT study which was solely focused on

males. All genders were identified as male or female, meaning that non-binary genders were unrepresented. The mean age ranged from 40.1-59.2 with the youngest at 21 and the eldest at 66. As research progresses, it will be interesting to note if there are varying effects among age groups. Studies predominantly had White participants, ranging from 75-93% except for the META study which only had 30% with a 40% Hispanic majority (Bogenschutz et al., 2015). Again, there is certainly room for an increasing diversity as further research is conducted. Participants having some post-secondary education ranged from 72-100% with the exception of the META study at 30%. Most studies recruited through advertising of some form, though Psilodep 1 recruited through a research network.

Methods. While the ACT modality is currently in active clinical trial, the other modalities have all been utilised in completed clinical trials. All were pilot studies except for Psilodep 2, as PAP is still in the early days of research to determine its feasibility. Most of the studies were open label and single-arm except for the ACT study in trial and Psilodep 2, which were both double-blind, randomised, and placebo controlled. The ACT study also used a crossover design. Clearly, there is much research yet to be done to be able to compare modalities by utilising more varied experimental designs.

Results. The studies utilising the ACE, META, CBT, and SEGT modalities obtained significant positive results, though the effectiveness of the modality itself was not measured. The ACT modality is currently being employed in a clinical trial (ClinicalTrials.gov, number NCT03554174). With the ACE model in Psilodep 1, 42% of participants were in remission from TRD at 3 months post-DS (Carhart-Harris, Bolstridge, et al., 2016). In Psilodep 2, reduction in depression was equivalent to 6 months of antidepressant treatment (Carhart-Harris et al., 2021). The META model showed a significant reduction in percentage of heavy drinking days among

participants (Bogenschutz et al., 2015). With the CBT model, 80% of participants were abstinent at their 6-month follow-up (Johnson et al., 2014) and 60% at more than a year (Johnson et al., 2016). This is compared with 31% abstinence at 1 year with the most effective smoking cessation medications (Hays et al., 2008; Tønnesen et al., 2003). With SEGT, self-reported demoralisation, the primary clinical outcome, demonstrated a robust change at 3 month follow-up (Anderson et al., 2020).

Limitations

Modalities. Bogenschutz and Forcehimes (2017) noted that with the proven efficacy of PAP, there will need to be research to optimise modalities. It is clear throughout the literature that determination of the best therapeutic modality for PAP remains an open question. While the therapeutic modalities proposed have been used with PAP, none of them have compared their modality to PAP with standard psychological support or another modality. For example, Sloshower et al. (2020) are utilising ACT with psilocybin for depression, yet it is not being compared to the psychological support model with psilocybin to determine if the ACT protocol is of greater therapeutic benefit. However, they are in the process of collecting self-report data regarding which aspects of the protocol are effective.

Yet, it is also worth noting that research suggests that modalities are generally proven equally effective (Wampold & Imel, 2015). There is also concern regarding randomised clinical trials' imperative to homogenise a population by a single diagnosis (Norcross & Wampold, 2018). Beutler and Clarkin (1990) suggested that this presupposition of a homogenous treatment group is misleading. Norcross and Wampold (2018) suggested that matching a disorder with a particular psychotherapy is incomplete and ineffective. They concluded that the therapeutic relationship and individualised adaptations for the client contribute equally or more than the

modality to client outcome. Differences between therapists has been shown to impact outcome more than differences between modalities (Wampold & Imel, 2015). Thus, it is suggested that therapy should focus on the therapeutic relationship and be adapted to individual client's transdiagnostic characteristics, making therapy an individually tailored experience (Norcross & Wampold, 2018). These characteristics include client factors such as "attachment style, racial/ethnic culture, therapy preferences, religious/spiritual commitment, reactance level, stage of change, and coping style" (Norcross & Wampold, 2018, p. 2).

Participants. As stated, as this research progresses, it will need to increase the size of the participant sample to determine efficacy. As well, demographic variables will need to be diversified. Regarding gender, most studies had more male participants and there was no representation of non-binary identified individuals. Regarding ethnicity, Sloshower et al. (2020) mentioned that their model has not been tested for relevance among people of colour and noted the report of Michaels et al. (2018) showing that this pertains to the greater psychedelic-assisted psychotherapy research field at large. Sloshower et al. (2020) suggested that using the ACT model with people of colour may require special consideration, as various cultures may view the ACT concepts differently. For example, the ACT concept of experiential acceptance, if improperly introduced, may alienate someone who is experiencing internalised racism.

It is interesting that the one study with significantly fewer White participants also had a significantly lower level of post-secondary education and unemployment, suggesting that the diversity of the sample may impact other demographic variables. This correlation between ethnicity and education is supported by reports that the White population represented the majority of students in postsecondary in the United States as of 2017 (Monarrez & Washington, 2020).

Methods. It has been previously noted that PAP is in its early days, meaning that most studies are aimed at proving safety, efficacy, and feasibility. Of the six studies reviewed, four are pilot studies. As well, five out of six have sample sizes of 18 or less. It is clear that PAP research needs to continue with more experimental studies with larger sample sizes. As positive outcomes are solidified, the research will then be able to compare particular modalities, perhaps to the standard psychological support model. Later, modalities can be compared to determine efficacy. The number of DSs also varied from one to three, which could be standardised to facilitate the comparison between studies as research moves forward.

As well, though two of the six studies were double blind, randomised, and controlled, the use of a placebo control has been questioned in psychedelic-assisted psychotherapy (Gukasyan & Nayak, 2021). They note that there are issues with both participant and guide blinding as the subjective effects of psychedelics at higher doses are often easy to distinguish from placebo. In fact, 77% of participants identified whether they had received psilocybin or methylphenidate in one study (Griffiths et al., 2006). This can also result in nocebo effects, in which the placebo group experiences demoralisation in not receiving the psychedelic, potentially worsening their outcomes (Gukasyan & Nayak, 2021). Guides have a similarly accurate rating of drug effects (Carbonaro et al., 2018). The guides' allegiance or belief in the benefit of psychedelic-assisted psychotherapy may also contribute to nocebo effects (Gukasyan & Nayak, 2021). The best solution to this thus far has been to use a lower dose active placebo or comparator drug, yet the differences tend to remain perceptible in both cases.

Alternative and Underrepresented Perspectives

Ethnic Diversity. People of colour are underrepresented as participants in the studies reviewed, as well as in the greater psychedelic research field. In a comprehensive review of the

psychedelic-assisted psychotherapy literature spanning from 2000-2018, Michaels et al. (2018) found that 82.3% of the participants were non-Hispanic White. The representation of people of colour is lower than their representation in both the US population and US biomedical research. They suggested that treatment outcomes are not generalisable to all people when minorities remain underrepresented. These therapies need to be proven safe and effective for all cultures. As well, the exclusion of people of colour has prevented their access to the potentially positive therapeutic outcomes of psychedelic therapy. This exclusion is particularly harmful given that people of colour experience significantly more psychological distress compared to non-Hispanic Whites alongside increased barriers to treatment. Especially considering that psychedelic therapy is most likely to be a costly cutting-edge treatment as it becomes legalised, including people of colour, who experience more systemic inequity, in clinical trials proves even more important (Thrul & Garcia-Romeu, 2021).

There are efforts that need to be made to assure that people of colour feel welcome. To start, psychedelic researchers have been predominantly White men, with leadership positions rarely held by women or people of colour (Michaels et al., 2018). This needs to change to increase representation and diversity in the field, but also for the sake of participants. It has been recommended to have ethnoracially-matched guides for participants (Michaels et al., 2018) as this has been demonstrated to generally improve the treatment process (Malgady & Costantino, 1998; Sue et al., 1991). As well, to be culturally inclusive, this necessitates a culturally inclusive environment and music which represents the diversity of participants (Michaels et al., 2018). Finally, Sloshower et al. (2020) noted the importance of diversity training to assure that guides can discuss racism and oppression and use therapy to combat discrimination.

Gender Diversity. Three of the four completed studies with both male and female participants had fewer females, ranging from 33-40%. Concern regarding this difference was not found anywhere in the literature. There is also no mention of any gender identities outside of the cisgender binary. As with people of colour, gender minorities experience large health disparities (Hsieh & Ruther, 2016; Streed et al., 2017) and should be represented and have access to treatments.

Indigenous Perspective. The knowledge of Indigenous peoples who have worked extensively with psychedelic medicines have not received enough respect for and acknowledgement of their expertise in the Western scientific context (George et al., 2019). Scientific studies on psychedelic medicines far outweigh studies of Indigenous knowledge of these medicines (Fotiou, 2019). To date, Western psychedelic research has been individualistic and medicalised, while erasing Indigenous traditional medicinal use.

Aztecs consumed fungi containing psilocybin medicinally, religiously, and recreationally (George et al., 2019). This fungi was referred to as *teonanacatl*, or food of the gods. It is also known by the Mazatec as *Ndí Xijtho* or "little things that sprout from the ground" (Acosta López et al., 2020) and *niños santos* or "child saints" (Feinberg, 2018). Traditional Aztec healers consumed the fungi to bring back divine knowledge for the community (Barceloux, 2012). In the Mazatec tradition, one became a healer by consuming the fungi, attaining the ability to diagnose and cure disease (Labate & Cavnar, 2013). They were also used to solve problems, find missing items, and connect with the deceased (George et al., 2019). Gordon Wasson, an amateur ethnomycologist, is responsible for introducing psilocybin to the West when he visited the Indigenous Mazatec *curandera*, or healer, María Sabina in Oaxaca, Mexico in 1955 (De Leon, 2020; Wasson, 1957). Despite Sabina asking Wasson to not print her photo, he had it printed in

Life magazine (De Leon, 2020). This led to a flood of Western seekers to her village of Huautla de Jiménez and proved disruptive to the Indigenous people (Feinberg, 2003).

In the decades of Western psychedelic science research, psilocybin and other traditional psychedelics have become objects of study in research contexts, far from their traditional cultural context (Fotiou, 2019). Feinberg (2018) suggested that the Western model has made the psychedelic experience into an isolated model when it traditionally comes from a communal environment and context. Tupper and Labate (2015) suggested that this change in context alters the object of study and potentially delegitimises their Indigenous traditions. However, Johnson et al. (2008) suggested that the care indicative in the psychological support model for psychedelics echoes the ritualised and sacred use of psychedelics by Indigenous cultures. In reviewing guidelines for safety in psychedelic research, they noted the common themes between clinical research and Indigenous practice: structured use or ritual, and restriction/guidance or reverence.

Taylor (2003) suggested that the decolonisation of science involves recognising Western science as an ethnomedical system with its own culture, rather than only viewing Indigenous traditions as subjective. Fotiou (2019) stated that our clinical trial model does not tap into the wealth of knowledge and potential of Indigenous traditions. For example, mind and body are not viewed separately in Indigenous traditions as they are in the biomedical model. Finally, there is also concern regarding reciprocity with Indigenous cultures from which these medicines were appropriated. De Leon (2020) notes that the Indigenous stewards of psychedelic medicines have not benefited from the burgeoning psychedelic movement of the West. Millions of dollars are being poured into the Western psychedelic movement while the communities of many of the Indigenous stewards are being threatened. Reciprocity can involve the direct support of Indigenous communities or reciprocity initiatives.

Future Considerations

In an extensive review of PAP, Horton et al. (2021) stated that there is need for PAP to investigate the best suited modalities and techniques. As research moves forward, it will be useful to compare modalities via standardised measurement tools and qualitative participant reports. Modalities can be compared to standard psychological support and against each other. It may even be interesting to do a crossover trial in which participants have a second round with the opposite modality, as their qualitative reports after the second round may offer some comparative insights. As mentioned previously, while CBT was chosen as the PAP modality for smoking cessation (Johnson et al., 2014), ACT has demonstrated better long-term abstinence results in non-psychedelic therapy for smoking cessation (Hernández-López et al., 2009). Thus, if ACT and CBT were each employed with PAP for smoking cessation, we may find that ACT is the more effective modality. Horton et al. (2021) also suggested exploration of best suited modalities for low versus high doses and modifications to modalities to benefit all cultures, ethnicities, and abilities. This could be applied to gender identity and other social locations.

Bogenschutz and Forcehimes (2017) suggested that particular therapeutic modalities may be suited to certain mechanisms. For example, if intention and motivation strongly impact the outcomes, they suggested that motivational interviewing may prove useful. To enhance the ME of a psychedelic, they wondered about programs such as 12-step for addictions or mindfulness-based interventions. Perhaps cognitive behavioural or behavioural modalities would work best with a psychedelically increased neuroplastic state. With increased relationship salience seen after a psychedelic, they also wondered about its use for family and couples therapy. More research needs to happen regarding group therapy as well, especially given its potential benefits

of social connection and cost effectiveness. It would be useful to run a study comparing individual to group therapy with both modes using the same modality and other variables.

Sloshower et al. (2020) shared their process of trying to determine the best modality for treating MDD. They considered three other therapies before selecting ACT: interpersonal psychotherapy, logotherapy, and mindfulness-based cognitive therapy. Interpersonal therapy was eliminated as it focused on external circumstances and logotherapy was not chosen as its focus on meaning making was considered potentially reinforcing of depressive thoughts. ACT was chosen over mindfulness-based cognitive therapy as the former was seen to include the aspects of the latter with the addition of a focus on values exploration and values-based action.

Also of note, the Multidisciplinary Association for Psychedelic Studies offers additional therapeutic modalities to consider in their manual for MDMA-assisted psychotherapy (Mithoefer et al., 2017). They noted trainings which have proven useful such as Holotropic Breathwork, internal Family Systems therapy, Sensorimotor Psychotherapy, and Hakomi or other mindfulness-based approaches.

Conclusion

From my review of the current literature of modalities utilised for PAP, it is clear that research is in the early stages with much left to be determined. There is no research or evidence to determine the best modality for PAP for a particular indication. As well, even in the most basic psychological support model, research is just beginning to prove the importance of factors such as the therapeutic alliance (Murphy et al., 2022). This stated, I feel there are commonalties among the modalities in terms of psychological support and other components which could be proposed as general standardised recommendations for PAP. For example, based on the reviewed studies, it could be recommended that PAP should at minimum have two guides and a minimum

of 2-4 hours each of preparation and integration. Despite the evident shortcomings of the current body of research, in chapter 3, I will propose what I envision as an ideal PAP experience given the current available research and the personal experience of myself and my community.

Chapter Three: Summary, Recommendations, and Conclusions

In this chapter, I intend to coalesce what I have gleaned as best practices for PAP after my review of the literature. The various modalities reviewed vary primarily with respect to their modality-based interventions for differing concerns including depression, addiction, and demoralisation. Here, I will offer my general proposed practices which are applicable across concerns. While this paper has reviewed individual and group PAP in a research context, this chapter will focus on recommendations for individual PAP in a therapeutic context. I chose to offer proposals for the therapeutic context as in the last few years, PAP is beginning to be used in legal therapeutic settings within Canada and the USA (Lewis-Healey, 2021). Additionally, I will offer some traditional Mazatec ways of working with mushrooms in this chapter to highlight that this chapter's recommendations are biased in the Western medical model.

Modality-Based Considerations and Recommendations

Given that no modality is currently proven to be best suited with PAP for a particular concern, I will not make any modality-based recommendations. For example, while I appreciate the psychological flexibility model of ACT and can see its utility in structuring a focus for the PAP sessions, yet without evidence to show that this approach has statistically significant treatment outcomes when compared with a different modality, the only recommendations that could be made would be based on preference. While this is also true of the more general recommendations I will make in this chapter, in the least, they will pertain more globally to PAP irrespective of the participant's issue. As previously stated, I would recommend that research continue to measure outcomes for the modalities created and later compare these modalities to see if there is a significant difference in outcome for treatment of the same concern.

I believe that the therapeutic context would differ greatly from the research context as any therapist likely has a preferred therapeutic approach already established. Insisting on a particular approach might increase therapist discomfort, which would arguably impact the therapeutic alliance. As well, the participant's affinity for a particular modality may impact treatment outcomes. Personally, whether functioning as a therapist or a client, I feel resistant to CBT, whereas I feel enthusiastic about somatic therapies. I feel it is safe to assume that this would impact my treatment outcome as client motivation is correlated with treatment effectiveness (Ryan et al., 2011). As stated, modalities have generally proven equally effective (Wampold & Imel, 2015), and therapeutic alliance and adaptations made for individual clients are equally or more beneficial than the modality chosen (Norcross & Wampold, 2018). Given this knowledge, I think therapists can work with their preferred modality until we have evidence demonstrating the utility of a different approach. I will, however, provide recommendations supporting or disagreeing with aspects of the modalities in the rest of this chapter.

Set

From this review, it seems that the most important aspects of the set are the participant's mindset and intention heading into the DS. Assuring that the participant feels safe, prepared, and open to the experience is key. This is done by way of preparation sessions which provide logistics, establish therapeutic rapport, and answer any questions. As previously mentioned, a positive and open mindset is thought to enhance therapeutic benefits (Hartogsohn, 2016; McWilliams & Tuttle, 1973). Thus, I believe that adequate preparation sessions are essential. I would recommend tailoring the amount of preparation sessions to the needs of the participant to assure they feel secure and ready before the DS. I will address this further in the preparation section below.

Setting

While the studies reviewed in this paper held DSs in research settings, I would recommend that all sessions take place in a therapeutic setting. While PAP had previously only taken place as research, it is now expanding into the therapeutic space. In Canada, as of January 2022, individuals have been able to apply to the Special Access Program to treat life threatening conditions which have not responded to other treatments (Dagenhard, 2022). In this case, after approval to use psilocybin or MDMA, they can elect to combine it with psychotherapy in a therapeutic setting. I agree with the research in that the therapeutic space should be warm, inviting, culturally inclusive, safe, and comfortable with minimal distractions (Guss et al., 2020; Johnson et al., 2008; Michaels et al., 2018).

Regarding music selection, my view is that guides might choose to stick to playlists created by the various research studies. With a client-centred approach in mind, I suggest that guides might provide participants with these playlists in advance so they can assert preferences if desired. This chance for familiarity and agency may enhance the participant's felt sense of safety and reduce negative experiences during the DS. I agree that music is ideally played through both headphones and a speaker within the room (Guss et al., 2020). Headphones would allow for an immersive and less distracted experience for the participant, while a speaker would provide continuity if the headphones were removed and allow the guides to track the musical experience.

Cast

I agree with Johnson et al. (2008) that all individuals in contact with the participant may potentially impact their DS and should be trained accordingly. This also pertains to the post-DS support person. Many of the studies did not make note of a post-DS support person, let alone assessing and informing them. Ideally, I would want guides to discuss what is needed in a

support person with the participant to help them discern who might be able to fill this role. I agree with Guss et al. (2020) in that at least one of the guides should meet or talk to this person to assure that they are informed of what support entails (e.g., being an empathetic presence, not prying into what happened in the DS, etc.) and that they are capable of the task.

While I also agree that clinical sensitivity is more important than particular certifications, I do think that ideally a participant would be able to experience their DS with a guide who is therapeutically trained. In the research studies, participants were only with the guides for preparation, dosing, and integration sessions. Though I know it is not financially feasible for all, I believe it would be more beneficial if a participant had regular therapy before and after a DS, with their therapist invited to be present as the second guide at their DS if desired by the participant. I believe this would increase the participant's sense of safety and would allow them to integrate their experience more fully with their therapist. I also believe that guides who are trained for PAP should have had a personal PAP experience. The BC-based PAP training program run by TheraPsil (n.d.) includes 1-3 high dose DSs approved by Health Canada.

I believe that two guides are best for DSs, and I believe that these two guides should remain consistent throughout all sessions. I do not agree with the need for one male and one female. This requirement is based on an essentialist and non-inclusive gender binary. In the end, I think that the guides' genders are only an issue if the participant has concerns. My view is that a participant should be able to meet potential guides in a consultation session and determine whether they want to work with them. Whereas participants did not have a choice in research settings, in a therapeutic setting I hope they would have some choice.

Mazatec Traditions of Set, Setting, and Cast

While I am offering my personal recommendations based on my review of PAP research in the Western medical model, I feel it is important to note that the above recommendations for set, setting, and cast do not reflect the traditional use of psilocybin. Thus, before continuing on with my recommendations for preparation, dosing, and integration sessions, I would like to share some differing aspects of Mazatec mushroom ceremonies, also known as *veladas* or "stay awakes" (Feinberg, 2018). My hope is to bring some awareness of bias and reverence for traditional ways of working with psilocybin before continuing to offer recommendations based on the Western medical model.

Set

The intention of the veladas and Western DSs are similar in intent to treat psychological conditions, though the Mazatec view also considers the mushrooms healing for physical or biological conditions (Feinberg, 2018). In fact, there is an experimental aspect to Mazatec traditions with minimal dogma. Regarding a participant's preparation, the Mazatec tradition also asks participants to abstain from sex and follow a specific diet for 4 days before and after the ceremony. In the manuals for the depression studies, there is only mention of abstaining from alcohol and spicy foods leading up to the DS and fatty foods the morning of the DS (Guss et al., 2020; Watts, 2021).

Setting

Veladas take place indoors on specific days of the week, beginning at night and ending at dawn (Acosta López et al., 2020; Feinberg, 2018). The Western model conducts DSs indoors as well, yet not at night. Instead of the Western music playlist, the curandero, or healer, sings chants using "a special charged and figurative form of language" (Feinberg, 2018, p. 43). For María

Sabina, each line of the chant would end with *tso*, or "says," to indicate that the phrasing was coming directly from the mushroom, the *niños santos* or "child saints" (Munn, 1973). In fact, this language is viewed as the most important factor in the ceremony for healing (Feinberg, 2018). The language itself is seen to search and find the malady of the participant.

Cast

Veladas are led by a curandero who may primarily serve extended family members (Feinberg, 2018) in contrast to the Western therapeutic model which discourages dual relationships (British Columbia Association of Clinical Counsellors, 2014). In contrast to the Western model in which guides are non-directive (Doblin, as cited in Valentino, 2020), curanderos may work on people, such as by sucking illness out of participants or inducing vomiting (Feinberg, 2018; Harner, 1973).

Preparation Sessions

Logistics

As previously mentioned, I believe that participants would benefit from regular work with a therapist who can also be present at the DS if desired. This would allow for therapeutic sessions pre-DS to function as additional preparation as needed. If this were the case, I feel it would be acceptable to have fewer preparation sessions with the second DS guide. In the reviewed studies, the range of individual preparation time was 1.5-4.3 hours per DS. I envision a minimum of one 2 hour preparation session if the participant's therapist will be present and if not, a minimum of two 2 hour preparation sessions. This is still less than Richards' (2016) recommendation of 8 hours. I think a participant should also be able to request more preparation sessions as they see fit. I feel it is safe to assume that effective therapeutic rapport and a sense of safety with the DS guide could take more than one preparation session. If the participant chose to

have additional DSs with the same guide, I would think that one 2 hour preparation session would be sufficient.

Content

If there were two sessions, I can imagine one session dedicated to discussing the current issue and intention with the other session mainly dedicated to logistics (e.g., expected effects, how to navigate DS experience, participant concerns). If only one session was provided, it could mainly focus on logistics and intention. Given more time in two sessions, the participant might experientially prepare for the DS by way of grounding exercises and a mock run through of the session (e.g., participant lying down with eyeshades and music, perhaps guided through a breathwork exercise). I agree with Gorman et al. (2021) that encouraging participants to engage in grounding self-regulation practices such as meditation or yoga would be of benefit to their ability to handle the potentially intense experiences of the DS. However, this must be done from a trauma-informed approach which employs techniques such as titration wherein the participant would only engage in an amount of grounding practices that did not lead to dysregulation (Compson, 2014). I would also suggest that preparation is a time to create agreements regarding what a participant would like from the guides during the DS. Perhaps they will want to be reminded of the opportunity to be internal with the eyeshades on, or they may prefer that the guides simply allow their process to unfold as it may. This could be a time to have the client share or create reassuring phrases they would like to hear if they experience difficulty. The ACE modality had many excellent phrasing suggestions to encourage the participant to get curious and allow experiences (e.g., “What does it want to show you?”) instead of resisting and to practice embodiment (e.g., “Where do you feel it in your body.”; Watts, 2021). Additionally, I believe it is helpful for guides to take some basic notes intended to be given to the participant at the end of

the PAP experience to aid integration. Finally, I believe that remaining fairly flexible about session structures, as the ACE modality allowed, is important so therapists centre the servicing of the participant's needs.

Dosing Sessions

Logistics

Within the reviewed studies, there were 1-3 DSs which occurred 1 month apart on average. I imagine that the proximity of DSs may be mainly due to study logistics and limitations. I would recommend that DSs should take place more than a month apart to allow for adequate integration. That said, the number and timing of DSs could be collaboratively determined by the guide and participant unless research begins to demonstrate evidence for particular timing recommendations. I propose that one DS may be sufficient for some while others may want more than three. I also feel that each participant's integration period after a DS will vary. For example, if a participant felt that they needed more than 4 weeks to process and integrate their experience, it seems that a more flexible PAP schedule would be of benefit to the person so that they can bolster their sense of agency and attunement to their own needs.

Content

I agree with the non-directive and inner-directed approach of DSs. The reviewed studies all had guides encourage participants to wear eyeshades and headphones to focus on their internal experience. I imagine that this is particularly useful in the research context to reduce confounding variables such as guide-participant interactions. However, in a therapeutic context, I propose that more flexibility would be of benefit. It is possible that relating with the therapists might be healing, especially if the participant's trauma is relational in nature. I contend that an inner-directed non-directive approach is a client-centred approach in which the participant would

determine what felt beneficial, with therapeutic oversight. I see it as useful to check in with the participant during the session to see if they want to return to an internal experience, but not to mandate this. The same applies to movement. My impression is that the research studies focused on having participants lie down during the experience, though only one study explicitly mentioned redirecting a participant to lie down if they engaged in movement about the room. I would propose that movement be allowed if it felt helpful to the participant. For example, from the lens of somatic therapy, a participant could revisit a traumatic memory and feel compelled to mobilise in a way that allowed them to complete an interrupted survival response.

In terms of interventions, I like that the SEGT modality included breathing exercises before the DS, as it seems wise to experientially remind the participant that breath will be an anchor during the intensity of effects. At the end of the DS, I think it should once again be up to the participant whether they want to share some of their experience, or if they would prefer to wait until integration the next day. However, I agree with Johnson et al.'s (2008) recommendation that participants avoid overly analysing or communicating about the DS immediately after. Though seen in many of the studies, I do not think that participants should write out a narrative of their experience at the end of the DS or that evening unless personally desired. However, the guides can add to the notes intended for the client which were started in the preparation sessions. I agree with the SEGT modality having a guide make note of participants' phrases spoken during the DS with the intent of providing it to the participant (Anderson et al., 2020). They could also note other aspects of the experience such as the participant's movements to facilitate their later recall and integration. This could also include notes regarding any sharing at the end of the DS.

Integration Sessions

Logistics

If the participant's regular therapist were to be present for the DS, I believe this would help with integration as their therapist may have a deeper understanding of the content that arose during the DS. As well, there would be more time to process and follow up with catalysed changes. If this were the case, as with preparation sessions, I feel that fewer integration sessions may be needed. In the reviewed studies, individual integration time ranged from 1.5-5 hours. I would recommend at least one 2 hour session and leave it to the discretion of the participant whether they would like additional sessions. Gorman et al. (2021) noted that psychedelic experiences can continue to unfold over weeks or months, so I believe it is important for participants to have access to continued integration sessions if desired.

Content

I view integration as a time for the participant to share their experience and have the guides share information which may fill in memory gaps or contribute additional information. As with most of the studies, I value a focus on making meaning of the experience and translating this into actionable behaviours the participant can implement going forward. After a psychedelic experience, it is believed that thoughts and behaviours are more malleable to change (Garcia-Romeu & Richards, 2018; Majic et al., 2015), highlighting the importance of helping the participant to define and plan actions for integration. However, I agree with Gorman et al. (2021) such that guides should caution participants from making any major life altering decisions in the short term after a psychedelic experience; while they can be beneficial, it is best not to act impulsively. I appreciate the SEGT modality's suggestion for the participant to write about their experience in the following days, but I would offer that participants might elect to create art,

make voice recordings, or some alternative form of expression to continue to process and integrate their experience. Gorman et al. (2021) suggested that it is the guide's responsibility to encourage the participant to engage in activities which help them to develop and sustain insights from their experience. I also agree with their suggestion that the encouragement of somatic work can help the participant to integrate their physiological and emotional experience without becoming overly cognitive. An increase in somatic awareness and self-regulation can be facilitated by way of movement, grounding, and mindfulness practices (Burrows, 2013; Cushing & Braun, 2018; Myrick et al., 2015; Ostafin et al., 2006). Finally, during integration, guides can again add to the notes for the client, such as meanings derived and actionable items for future integration.

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