

Reducing existential anxiety: psychedelic-assisted therapy for anxiety and depression in the face of death.

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Hallucinogens, primarily LSD and psilocybin, have been used for the treatment of anxiety and mood disturbance associated with terminal illnesses since as early as 1960, with four clinical trials occurring in recent years. A systematic review of these clinical trials revealed 11 studies - 7 involving LSD, 3 using psilocybin and one investigating the use of dipropyltryptamine (Reiche et al., 2018). The majority of psychedelic studies were conducted in the 1960s and 1970s, and showed a great deal of promise for psychedelics as therapeutic agents (Dutta 2012; Reiche et al., 2018; Gasser, Kirchener and Passie, 2014b). In arguably the most famous early case of psychedelic palliation, Aldous Huxley took an injection of LSD while he lay on his deathbed (it is perhaps the only documented case of LSD use during the process of dying). This paper explores the recent trials into psychedelics for death-related anxiety and depression, in the context of current medical and psychiatric ideology. In this arena, the field of anthropology can elucidate the cultural meanings behind death and dying, and methodologies that may uncover the human and experiential aspects of the psychedelic experience.

The recent clinical trials conducted by Grob, Gasser, Griffiths and their respective colleagues explore the use of LSD or psilocybin for treatment of depression, anxiety, or adjustment disorders in individuals with terminal illnesses (Gasser et al., 2014; more refs). These studies contain higher methodological quality, more stringent assessment procedures and higher reported safety compared to the studies of the 1960s and 70s (Reiche et al., 2018). Early studies suggested the effectiveness of hallucinogens in treating distress in cancer patients; however, they contained no control or comparison conditions to demonstrate that the effects were any better than placebo (for example, Grof and colleagues 1963, Kast 1967, and Richards and colleagues 1977 - cited in Griffiths et. al., 2016). It is well established that set (participant characteristics) and setting (environmental factors) lead to great variability in psychedelic experiences. It is therefore worthwhile evaluating the procedures and processes involved in the recent trials. The following section will outline the processes undertaken in the recent psychedelic studies into anxiety and depression associated with life-threatening illnesses, conducted since 2011.

Recent studies used either LSD or psilocybin, compared with either a very low dose of the active substance (e.g. Griffiths et al., 2016) or a placebo with mild physiological effects such as niacin (e.g. Grob

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et al., 2011). The study process usually included several meetings with study staff prior to any active experimental sessions. The initial meetings were aimed to review the purpose of the study, treatment structure and goals, establish rapport with the patient and get to know significant issues in their lives and current situations (Grob et al., 2011). Data assessments were made at several time points, including well in advance of the first dose, immediately post treatment sessions, and again days, weeks, and even several months following treatment sessions. Follow-up interviews were conducted up to 12 months following participation in LSD psychotherapy (Gasser, Kirchner, & Passie, 2014a). Patients also took part in an extensive battery of psychometric measures for a range of constructs, including mood states, depression, state anxiety, trait anxiety, altered states of consciousness, psychiatric ratings, mystical experience, quality of life, and existential distress (Griffiths et al.; Grob et al.; & Ross et al., 2016).

Patients participating in the recent clinical trials were diagnosed with either cancer or other life-threatening diseases at various stages (Gasser et al., 2014a; Griffiths et al., 2016; Grob et al., 2011; & Ross et al., 2016). All participants also met the diagnostic criteria for a mood, anxiety, or adjustment disorder. The majority of participants were white, college-educated, had no family history of mental illness and had little or no prior hallucinogen use. They were required to stop any psychiatric medication prior to participating in the research (Griffiths et al., 2016; Grob et al., 2016; Ross et al., 2016).

Sessions of psychedelic therapy occurred in what was described as an “aesthetic living-room like environment” (Griffiths et al., 2016), some rooms “decorated with fabric wall hangings and fresh flowers” (Grob et al., 2011). Participants were encouraged to lie down, wear an eye mask, attach a cardiac monitor, and listen to pre-selected music played through headphones. Treatment team staff remained at the bedside for the duration, and interacted only minimally, checking participants heart rate and blood pressure at intervals. Participants were encouraged to “trust, let go, and be open”, (Griffiths et al., 2016, p. 1182); to “focus their awareness and mindful attention inward to follow their personal process of perception, emotion, and cognition. Lengthy discussions between the participants and the co-therapists were discouraged” (Gasser et al., 2014a). There was no explicit instruction to focus on their experience with terminal illness, only to focus on their inner experiences during the session. Both participants and staff were “strongly encouraged to try to attain maximal therapeutic and personal benefit from each session.” (Griffiths, et al.). Participants stayed in the treatment room for 6-8 hours with a therapist, and overnight with a sitter (Gasser et al.). Study monitors ranged in formal training, from no experience to clinical level, and were primarily chosen for their interpersonal skills and

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experience with altered states of consciousness (Griffiths et al.).

Results demonstrated the antidepressant and anxiolytic benefit from 1-2 administrations of either LSD or psilocybin (Reiche et al., 2018). There were no serious adverse effects reported, and some reports of minor short-term undesirable experiences (for example, headaches, nausea and vomiting, transient psychological distress, discomfort and heightened anxiety at some points) (Griffiths et al., 2016). No studies reported any indications of severe anxiety reactions or a “bad trip”. In fact, many of the research subjects recommended that future protocols should provide the opportunity for additional psychedelic sessions, and found the placebo sessions to be relatively unappealing (Grob et al., 2011) – it appeared that the most negative part of the study was not tripping *enough*. Following the experimental sessions, participants reported significant reductions in anxiety and mood disturbance, and these results were sustained for months after the treatment session (Griffiths et al., Grob et al., Ross et al., & Grob et al.). The anti-depressant response rate for psilocybin was around 80% at 6 months post follow-up (Ross et al., & Griffiths et al.). The clinical response for anxiety was equally as high. To put this into perspective, there are no other known pharmacological agents that can lead to immediate anti-depressant and anti-anxiolytic effects, with enduring benefits, after a single administration (Ross et al.). A meta-analysis of commonly prescribed anti-depressant medication for comorbid depression and medical conditions found that for cancer patients, the anti-depressants performed only as well as the 40% placebo response (Ross et al., 2016).

At the conclusion of the psychedelic sessions, participants were given the opportunity to discuss “the subjective, aesthetic, cognitive, affective, and psychospiritual experiences they had during the session and complete rating instruments” (Griffiths et al., 2016, p. 73). Themes that emerged from these discussions included “examining how their illness had impacted their lives, relationships with family and close friends, and a sense of ontological security... [they] reported powerful empathic cathexis to close friends and family members and examined how they wished to address their limited life expectancy” (Griffiths et al., p. 17).

Measures of existential distress, quality of life, mystical experiences, spiritual and even behavioural benefits were considered “secondary outcome measures” (Grob et al., 2011). The protocols used herein, namely the reliance on data and relegation of spiritual / mystical impacts to “secondary” in line with the Western predisposition toward physicalist monism, dualism, and objectivity (Blainey, 2010).

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Traditionally, physicians have neglected the spiritual aspect of dying, and spirituality is still largely ignored in Western medicine; meanwhile, at the end of their life, individuals frequently journey inward to engage in a search for the meaning of life, death, and human existence (Rosseau, 2000).

The research presented herein reflects the historical, economic, scientific and ideological meanings surrounding mental disorders (Wilson, 1993). From the 1950s to the 1970s, the biopsychosocial model was the guiding principal in Western psychiatry – underpinned by psychoanalysis, sociology, and biological knowledge (Wilson). Psychedelic research was contemporaneously explored for its utility in treating a wide range of psychological issues, and transpersonal states of consciousness were understood to catalyse the therapeutic response (Dutta, 2012). Psychedelic research was promising in its early stages; and was arguably let down by a lack of scientific rigour and somewhat indiscriminate use leading to increased likelihood of adverse effects. Political concerns around the use of psychedelics and altered states of consciousness also contributed to the demonising and ultimate prohibition of this research. Around this time, the biopsychosocial model was under scrutiny by prominent psychiatrists for its inability to divide the mentally well from the mentally ill, a reported threat to the legitimacy of psychiatry (Wilson). The subsequent publication of the DSM-III in 1980 represented a shift to a research-based medical model, a descriptive model of mental disorders which has largely persisted since (Wilson). Despite the emphasis on research, evidence, and data, which had positive scientific and economic consequences for Western psychiatry (Wilson); reliability ratings for diagnostic categories in the current version of the DSM are surprisingly low (Parry, 2018). The ideological understandings of mental health have significantly narrowed in focus (Wilson), criteria for mental illness are largely based on social norms, and there is an over-medicalisation of natural and normal responses to experiences (Parry, 2018). The narrowed focus of Western psychiatry can be seen in 3 domains: (1) the loss of the concept of the depth of mind or unconscious; (2) the limitation of the dimension of time (relative downplaying of personal history); and (3) the constriction of what is clinically relevant to a cluster of symptoms, blind to personality, character, family dynamics and social context (Wilson, 1993).

The Western dominance of objectivity, reductionism and empirical sciences largely misses the subjective aspect of experience (Blainey, 2010). This reductionism of experience relates to a number of realms, including consciousness, mental wellbeing, and judgements of substance use; and could be perceived as a barrier to the exploration of existence and finding meaning in death and dying. For example, Blainey (2010, p. 125) argues that “the only sanctioned psychoactive substances are coffee, nicotine, alcohol and painkillers (aimed at lessening both physical and mental discomfort without prompting deep

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existential reflection)”. Discourse surrounding altered states of consciousness is placed in opposition to words such as “normal, accurate, real, true, objective”, suggesting that any experience in altered states must be “unreal, abnormal, false, erroneous” (Horvath, Szummer, & Szabo, 2017). The mind-body dualism proposed by Descartes has persisted in medicine, relegating the spiritual realm to the church and the physical world to science (Rosseau, 2000). This leads to an overreliance on diagnostic procedures and interventions that lack empathy, where “suffering and the treatment of disease are separate from the person experiencing the suffering” (Rosseau, p. 2000).

The contemporary research into psychedelics for end-of-life concerns is justified in a way that medicalises and somewhat reduces the experience, and fails to take the wider socio-cultural context into consideration. There is some passing mention of the spiritual qualities of psychedelics in the contemporary research (Griffiths et al., 2016), for example Ross and colleagues (2016) found that more intense mystical-type experiences led to significantly greater reduction in depression and anxiety. Individuals rated their experiences as highly meaningful and spiritual, with the associated positive cognitive, affective, spiritual and behavioural effects lasting weeks to months (Ross et al., 2016). How were such outstanding results explained by the researchers? In a return to medicalisation, the neurobiological mechanisms were implicated - the serotonergic system of the brain, possibly decreased medial prefrontal cortex activity, and decreased default mode network activity (Carhart-Harris et al 2012, 2014). Griffiths and colleagues (2016) argued for the need to understand the neuropsychopharmacological mechanisms of how psilocybin results in long-term alteration of cortical networks. The justification for the use of psychedelics in the treatment of death-related depression and anxiety was also somewhat lacking, with reference made to the past research of the 1950s and 60s and no reference to the ancient cultural uses; nor how the quality of the experience lends itself to helping individuals face the ending of their lives.

A question also remains as to why there is such caution in the use of psychedelics at present, given that the results are consistently positive and beneficial. Researchers are wary of the moral panic that ensued after the first bout of psychedelic research, and make great effort to be perceived as legitimate, careful, empirical and scientific (Dutta, 2012). There are some fears that open medical use will escalate abuse or increase recreational use of psychedelic substances. This is unlikely, considering the evidence from countries that have decriminalised non-addictive drugs and the lack of associated increases in recreational use of those drugs (for example, the Netherlands and Portugal) (Dutta, 2012). Perhaps there is concern that psychedelic use leads to increased mental health problems? A review of the

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National Survey on Drug Use in the United States found that there was no significant association between psychedelic use and mental ill-health, “rather, in several cases psychedelic use was associated with a lower rate of mental health problems” (Krebs & Johansen, 2013). It has been argued that economic concerns are more relevant to the issue, considering that these drugs do not require regular use and pharmaceutical companies cannot really benefit – one to two administrations created long-term positive alterations in wellbeing, in contrast to the several months to years of daily dosage required for traditional antidepressant and anxiolytic medications (Dutta 2012).

Anthropology may provide an antidote to the medical reductionism of the current psychedelic research into end-of-life anxiety and depression. Spiritual suffering may present similarly to depression, experienced acutely at the end of a person’s life as worthlessness, hopelessness and meaninglessness (Rosseau, 2000). Many ancient cultures and spiritual traditions have understood the healing powers of psychedelic plants, often referred in anthropology as “entheogens”, and their utility was intrinsic to many rituals including death (Dutta, 2012). Entheogenic rituals have been utilised in ancient cultures at crucial junction points in life, including puberty, onset of adulthood, marriage, mid-life, and death (Roberts, 2012). Modern Western therapeutic-shamanic communities have also formed around the use of hallucinogenic plants in hybrid communal rituals (Metzner, 2013).

Anthropology has explored the use of psychoactive substances in various human cultures (Schultes, 1940). Schultes provides a discussion of the use of *panaoulus*, a psilocybin-containing mushroom widely used for witchcraft and divination among the Chimitecs, Mazatecs, and Zapotecs of Southern Mexico. According to pioneering ethnographer Sahagun, these mushrooms were consumed in religious feasts and gatherings and brought on visions that were believed to constitute divine advice concerning the future (Schultes, 1940). According to Schultes, “The incoherent utterances which are made during the intoxication are interpreted as prophetic or admonitory” (p. 42). Medicinal use of the mushrooms were also reported, in treatment of rheumatism. In contrast to the Western research into the use of the same substance, the visions and phenomenological experience of participants are not regarded as highly important. Aside from one qualitative study exploring participants self-reported experiences (Gasser et al., 2014b), most of the results of the current research have been reduced to psychometric data and neurobiological explanations. There is no evaluation of the meaning of death and dying in Western society, or the meanings and significance of altered states of consciousness, which appears to be a large gap in the present research.

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Death is a natural and absolute progression of life, however many patients endure psycho-spiritual suffering and anguish during the dying process (Rosseau, 2000). Rosseau (2000) highlights the need for Western medical providers of palliative care to “discard the rigid boundaries of medical care, engage in a search for meaning, and realize that they cannot always provide answers, and instead join the patient and family in the questions and mysteries that surround death” (p. 2001). In this way, “preparing for death is one of the most profoundly healing acts of a lifetime” (Levine, 1997, p. 7). The methods of anthropology that include participant observation and phenomenology may help to elucidate the meanings and experience of people undergoing psychedelic treatment for end-of-life anxiety and depression. Anthropologists can also offer the insights of ancient and modern cultural uses of psychedelics used in spiritual / mystical / medicinal ways. These insights may further increase the efficacy, safety and transformative power of the treatment, and lead to further improvements in quality of life for individuals facing their own death.

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