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Mystical Experience with Cancer Patients: Insights from Psychedelic-Assisted Psychotherapy and Guided Imagery

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Abstract

Background: In controlled, clinical studies of the impact of psilocybin on patients with life-threatening cancers, Johns Hopkins and NYU researchers found that the "intensity of the mystical experience" induced by psychedelic-assisted psychotherapy was directly correlated with the alleviation of cancer-related mental distress. Objective: The purpose of this article is to explore the proposition that the combination of psychotherapeutic guided imagery and psychedelic-assisted psychotherapy could not only alleviate cancer-related psychological distress but also reduce or eliminate physiological tumors. Methods: The literature surrounding "mystical experience" is discussed; the modalities of psychedelic-assisted psychotherapy and guided imagery psychotherapy with cancer patients are compared; and the anecdotal outcomes of cancer remission among private therapy guided imagery patients are presented.

Index terms— cancer, mystical experience, neuroimaging, psilocybin, psychedelic-assisted psychotherapy.

1 Introduction

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The five common elements of mystical experience are:

1. Unity/Sacredness-deep sense of unity with all of existence; knowledge that "all is one"; profound sense of reverence.

2. Positive Mood/Ecstasy-deeply felt sense of wellbeing; experience of peace and tranquility; irrepressible feelings of joy and amazement. 3. Transcendence of Time and Space/Eternity-loss of usual sense of time and space; existing beyond past, present and future; entering a liminal, mythic dimension.

I.

2 Psychedelic-assisted Psychotherapy

Since 2006 the Johns Hopkins School of Medicine (Johns Hopkins) has been conducting the first research since the 1970s involving the administering of psilocybin to human subjects, including studies of personality changes and of psychedelic therapy for treating tobacco/nicotine addiction and cancer-related distress. Some 70 percent of the cancer patients rated the high-dose psilocybin sessions as among the top five of their contemporary understanding of the common elements in mystical experience is largely based on the ideas of William James (1902), *The Varieties of Religious Experience*, and Walter T. Pater (1911), *Mysticism and Philosophy*. These elements were refined, validated, and incorporated into a 30-question operational definition of mysticism, the Mystical Experience Questionnaire (MEQ30) utilized in the Johns Hopkins studies on the impact of psilocybin on reducing anxiety and depression in patients with life-threatening cancers (Barrett et al. 2015, MacLean et al. 2012).

3 O

? Authoritative/True Self-authoritative truth value of the experience (noetic); encounter with all-knowing presence; understanding one's authentic self. ? Ineffable/Indescribable-difficulty describing the experience in words; impossibility of adequately communicating it to others.

In a Journal of Psychopharmacology article, Roland R. Griffiths, Matthew W. Johnson, and colleagues report that "High-dose psilocybin produced large decreases in clinician-and self-rated measures of depressed mood and anxiety, along with increases in quality of life, life meaning, and optimism, and decreases in death anxiety" (Griffiths et al. 2016, p. 1). A six-month follow up study showed that these results were sustained in most of the participants.

In 2016 Johns Hopkins undertook the largest ever study of psilocybin in treating chronic depression and anxiety among patients with life-threatening cancers. In this randomized, double-blind, cross-over trial, 51 patients were given a low placebo-like dose (1-3 mg/70 kg of body weight) vs. a high dose (22 or 30 mg/70 kg of body weight) in two sessions with six-month follow up. (Griffiths et al. 2016). "most meaningful" and "spiritually significant" life experiences. In addition, their post-session mystical experience scores served as statistically significant predictors of therapeutic efficiency in reducing anxiety and depression.

Source: Matthew W. Johnson, Johns Hopkins School of Medicine, "Psilocybin in the treatment of cancer-associated depression and anxiety," Power point presentation, Ottawa, 2018, slide 13.

4 a) Guided Imagery-Assisted Psychotherapy

Julie M. Brown, coauthor of this article, is a retired psychotherapist who for twenty-five years specialized in helping cancer patients heal. In her private practice, she worked with a variety of therapeutic modalities, including guided imagery which she studied as a graduate student under her mentor in psycho synthesis.

Guided imagery, also known as visualization, is a technique through which psychotherapists help patients evoke and focus on mental images to facilitate This highlights an important distinction between psychedelic-assisted psychotherapy and guided imagery. The Johns Hopkins protocol is non-directive, simply encouraging study participants to "trust, let go and be open" and not providing instructions on where to focus. In contrast, the guided imagery modality is directive, with the therapist purposefully focusing patients to induce images and assisting in processing and integrating these images.

Often Brown's cancer patients turned to psychotherapy after conventional treatment (chemotherapy, radiation, pharmaceuticals) failed to reduce or eliminate tumors. In the guided imagery sessions, Brown found that patients would at times enter states of mystical experience that empowered both emotional (anxiety, depression) and physical (cancer) self-healing.

5 b) Guided Imagery Therapy Outcomes

Between 1986 and 2011, Brown worked with 50 cancer patients, the majority of whom achieved full remission as evaluated by oncologists. The profiles and outcomes for three patients are summarized in this table. relaxation, healing, and resolution of life issues. In guided imagery-assisted psychotherapy, a person calls on mental images to improve both emotional and physical health (see Samuels, 2003; ??pstein, 1989).

The daughter of one study participant noted that "This opportunity allowed my dad to have vigor in his last couple of weeks of life ? vigor that one would think a dying man could not possibly demonstrate. His experience gave my father peace. His peace gives me strength" ??Johnson 2018, slide 16). These outcomes prompted Griffiths to observe that "It's very common for people who have profound mystical-type experiences to report very positive changes in attitudes about themselves, their lives, and their relationships with others." And to exclaim, "To see people who are so beaten down by this illness, and they start actually providing reassurance to the people who love them most, telling them 'it is all okay and there is no need to worry'-when a dying person can provide that type of clarity for their caretakers, even we researchers are left with a sense of wonder" (Schiffman 2016). Depending on the client's situation, Brown frequently combined guided imagery in the context of psychotherapy with a complementary cancer approach. A complementary cancer approach may integrate a variety of tools including, but not limited to, emotional release work, breath work, nutrition, exercise, and meditation. This approach can help reduce the side effects of conventional treatment, improve client emotional and physical well-being, and enhance the healing process.

6 c) Guided Imagery Questions for Future Research

In the case of Brown's guided imagery outcomes with cancer patients, significant questions are:

? Can success in healing cancer utilizing guided imagery be replicated and validated? Beyond Brown's anecdotal cancer outcomes have other therapists been able to reduce or eliminate tumors utilizing guided imagery? Could healing have taken place in this context without a complementary cancer approach, or was it the combination of this approach and guided imagery that facilitated remission?

? Can psychedelic therapy protocols be integrated into guided imagery therapy?

As a psychotherapist and a person with significant personal psychedelic experience, Brown hypothesizes that the ability to administer psilocybin to psychotherapy patients could conceivably shorten the healing process, possibly from years to months. Given that clinical trials on psilocybin for addressing major depression disorder

100 have been granted "breakthrough therapy" designation by the U.S. Food and Drug Administration, what changes
101 in state and federal policies, and in professional regulations, would have to take place so that psychiatrists and
102 psychotherapists could legally integrate psychedelics into conventional treatment modalities?

103 7 d) Psychedelic Therapy Questions for Future Research

104 In the case of Johns Hopkins psychedelic therapy outcomes with cancer patients, significant questions are:

105 ? Can psychedelic-assisted psychotherapy be used not only to alleviate psychological anxiety and depression
106 in patients with life-threatening cancers, but also to facilitate physiological healing among cancer patients?

107 Given the pivotal role of mystical experience in both short-term psychedelic-assisted psychotherapy and long-
108 term guided imagery psychotherapy, could psychedelic therapy combined with guided imagery possibly reduce
109 or eliminate tumors in late-stage cancer patients?

110 ? Will long-term, costly psychotherapy eventually be replaced by short-term, more affordable psychedelic-
111 assisted psychotherapy?

112 Since short-term psychedelic therapy has achieved positive and sustained outcomes in 70 percent of the
113 participants, based on one or two high-dose psilocybin sessions administered over several weeks, will it eventually
114 replace, or significantly enhance, longterm psychiatric and psychotherapeutic modalities which require years of
115 treatment and cost thousands of dollars? II.

116 8 Mystical Experience and Healing

117 It is well-established that mystical experiences have historically played a pivotal role in indigenous shamanism
118 and world religions, such as the miracles Unlike the controlled Johns Hopkins study involving 51 participants,
119 Brown's 50 case studies were neither validated by independent observers nor subjected to methodological controls
120 ? except for the patients' cancer status which was monitored by their oncologists. Nevertheless, the seminal
121 role of mystical experience in both psychedelic-assisted psychotherapy and guided imagery psychotherapy raises
122 important questions.

123 surrounding Moses' burning bush and Jesus' baptism (Brown and Brown, 2019; Brown and Brown, 2016;
124 Winkelman, 2019). What is less well-known and quite unexpected is the discovery that mystical experiences are
125 the catalyst for healing in contemporary psychedelic research.

126 Two studies of the impact of psilocybin on cancer patients, conducted at Johns Hopkins and NYU, found that
127 "In both trials, the intensity of the mystical experience described by patients correlated with the degree to which
128 their depression and anxiety decreased" (Hoffman 2016).

129 In other words, research scientists have reliably occasioned mystical experiences ? "flights of the soul"
130 traditionally thought to be beyond the scope of empirical science ? in clinical settings by administering high-
131 dose psilocybin. Furthermore, it turns out that these experiences hold the key to positive patient outcomes in
132 psychedelic-assisted psychotherapy. Let this enigma sink in for a moment.

133 9 a) Three Seminal Studies

134 In the 1960s urban legends began circulating, claiming that psychedelics could allow intrepid trippers to meet
135 spirit guides, to travel to other dimensions, and even to know God. In fact, the new science of psychedelics was in
136 part inspired by the initiatory mystical experiences of early psychonauts: Stanislav Grof's cosmic consciousness
137 revelations on LSD in Prague (1993, pp. 15-16); Michael Harner's near death journey on ayahuasca in the Amazon
138 (1990, pp. 3-5); and Timothy Leary's mind-expanding awakening on psilocybin mushrooms in Cuernavaca,
139 Mexico (1960, pp. 11-34), to name but a few. Over time, the ability of psychedelics to generate authentic
140 mystical experiences was confirmed by three seminal studies.

141 The first, the Miracle of Marsh Chapel (also called the "Good Friday Experiment") was a psychedelic research
142 experiment carried out by Walter N. Pahnke under the auspices of Leary's Harvard Psilocybin Project. On Good
143 Friday 1962, Pahnke randomly divided twenty volunteer Protestant divinity students into two groups assembled
144 in a small room in the basement of Marsh Chapel on the campus of Boston University. In this controlled double-
145 blind study, half the students received capsules containing thirty milligrams of psilocybin and the other half
146 received a large dose of niacin (vitamin B3) as a placebo. The results were compelling. Almost all members of
147 the group receiving psilocybin reported profound mystical experiences.

148 As Pahnke reports, "The persons who received psilocybin experienced to a greater extent than did the controls
149 the phenomena described by our typology of mysticism" (Doblin 2012, p. 85). He built a follow-up survey into
150 the research design, which found that six months after the experiment the psilocybin subjects reported persistent
151 positive, and virtually no negative changes in their attitude and behavior. In assessing Pahnke's research, Walter
152 H. Clark, recipient of the American Psychological Association's Award for contributions to the psychology of
153 religion, states "There are no experiments known to me in the history of the scientific study of religion better
154 designed or clearer in their conclusion than this one" (Doblin 2012, pp. 87-88).

155 A third round of studies, initiated more than 40 years after the Good Friday Experiment, was conducted
156 at Johns Hopkins School of Medicine. In two papers, Griffiths and his colleagues empirically demonstrated
157 that psilocybin could regularly result in mystical experiences with lasting benefits for participants ??Griffiths
158 et al. 2008; ??r Griffiths et al. 2006). These doubleblind studies found that: psilocybin was safe in structured,

159 clinical settings; generated one of the five most meaningful life experiences for most participants; and produced
160 improvements in mood and quality of life that were still present 14 months after the sessions.

161 10 b) How Does Mystical Experience Facilitate Healing?

162 The rigorous psychedelic therapy studies of stress reduction and the anecdotal guided imagery therapy cases
163 of cancer remission described above suggest that mystical experience can facilitate both mental and physical
164 healing. "How" this healing takes place is the theoretical Holy Grail of psychedelic-assisted psychotherapy.

165 Our quest to unravel this mystery begins with the insights of three mind explorers: Roland R. Griffiths,
166 grandfather of the psychedelic renaissance; Robin Carhart-Harris, pioneer of psychedelic brain neuroimaging;
167 and Carl G. Jung, who with Sigmund Freud laid the foundations of modern psychotherapy.

168 In essence, Griffiths observes that "the psilocybin experience enables a sense of deeper meaning, and an
169 understanding that in the largest frame everything is fine and that there is nothing to be fearful of" (Schiffman
170 2016). How the brain expands from

171 The second study showed that the Good Friday Experiment could withstand the test of time and scrutiny
172 by independent reviewers. A 25-year follow-up investigation conducted in 1987 by then-graduate student Rick
173 Doblin, founder of the Multidisciplinary Association for Psychedelic Studies (MAPS), documented that "all
174 seven psilocybin subjects participating in the long-term follow-up, but none of the controls, still considered their
175 original experience to have had genuinely mystical elements and to have made a valuable contribution to their
176 personal lives." Doblin (2012, p. 87) concluded that Pahnke's research on synthetic psilocybin "cast considerable
177 doubt on the assertion that mystical experiences catalyzed by drugs are in any way inferior to nondrug mystical
178 experiences." III.

179 11 Brain's Neural Pathways

180 Before and after Magic Mushrooms IV.

181 12 Inner Self-healing Intelligence

182 It is Jung's (2017) "spiritual self" that embodies insights that emerge from the unconscious mind. Beyond Freud's
183 model, Jung proposes the existence of a "spiritual self," also called "spiritual consciousness." Through dreams,
184 messages from the spiritual self are brought into awareness. Psychedelics allow us to leave the brain's "default-
185 mode network" (Carhart-Harris et al. 2014), the brain's everyday information highway, and travel into areas of
186 the mind accessible in non-ordinary states of consciousness, thereby creating a "superhighway to the unconscious"
187 and access to mystical experience. In summarizing the findings of neuroimaging research with psychedelic drugs,
188 Carhart-Harris (2014, p. 18) concludes, "Indeed, psychedelics greatest value may be as a remedy for ignorance
189 of the unconscious mind." Mystical experiences arise when the doors of perception are flung wide open so that
190 the spiritual self can surface from the depths of the psyche, empowering us to heal and understand that in the
191 cosmic scheme of things "all is well." As one of the pioneers of psychedelic psychotherapy, Stanislav Grof has
192 guided over 3,000 LSD sessions. Based on his unparalleled experience with LSD and encyclopedic knowledge of
193 the psychedelic literature, Grof (2019) observes that "Entering these [holotropic, transpersonal, mystical] states
194 activates an inner self-healing intelligence, which automatically guides the process to unconscious material that
195 has a strong emotional charge and is close to the threshold of consciousness. It then spontaneously brings this
196 material to the surface for processing."

197 In this context, it is worth noting that Grof has documented significant instances of auto-punitive emotions
198 correlated with the emergence of cancer. In *The Human Encounter with Death*, he reported on research in
199 which high dose LSD (200 to 600 micrograms) was given to terminally ill cancer patients (Grof and Halifax,
200 1977). In this study, Grof and associates at the Spring Grove State Hospital in Baltimore "saw surprisingly
201 frequent instances of severe guilt, feelings of self hatred, and autopunitive tendencies that had preceded the
202 clinical manifestation of cancer by years or decades." They also found that "It was not infrequent that cancer
203 patients in their LSD sessions saw direct links between such tendencies within themselves and their malignancies."
204 from his power point presentations on psilocybin studies conducted at Johns Hopkins.

205 1. Barrett, F.S., Johnson

206 13 a) Can Positive Emotions Impact Immune Response?

207 To investigate the above findings from a medical perspective, it is essential to seek empirical evidence on the
208 impact of mental states on healing cancer. It is important to go beyond the psychological phenomena of
209 "mystical experience" and "inner self-healing intelligence" to determine if there is physiological evidence that
210 positive emotions, such as those engendered by mystical experience, can significantly activate the body's immune
211 system.

212 Research conducted at the Faculty of Medicine at the Technion in Israel suggests that the prima facie answer
213 to this question is "yes." Studies of mouse models involving melanoma and lung cancer found that activation of
214 the brain's reward system helps regulate immune system function and enhances immune response (Ben-Shaanan,
215 et. al. 2018). Specifically, activation of the dopamine-releasing neurons in the ventral tegmental area (VTA) of
216 the brain significantly impacted tumors, resulting in a 46.5 percent reduction of tumor size after 14 days.

218 14 Conclusions

219 This paper shows that, in addition to appearing in dreams, the spiritual self may emerge through mystical
220 experiences occasioned by psychedelic-assisted psychotherapy or evoked by guided imagery therapy. While
221 controlled, clinical studies (n=51) at Johns Hopkins School of Medicine found that psychedelic-assisted
222 psychotherapy alleviates anxiety, depression, and fear of death among patients with lifethreatening cancers,
223 anecdotal observations (n=50) among cancer patients being treated in private practice found that guided imagery
224 psychotherapy reduces or eliminates tumors among advanced stage cancer patients. Based on these observations,
225 the following question is proposed for future research: can psychedelic-assisted psychotherapy augmented by
226 guided imagery facilitate the reduction or elimination of tumors in cancer patients?

227 Hopefully, these reflections on the role of mystical experience in psychotherapy will inspire further exploration
of this unique phenomena that holds a key to healing and well-being.

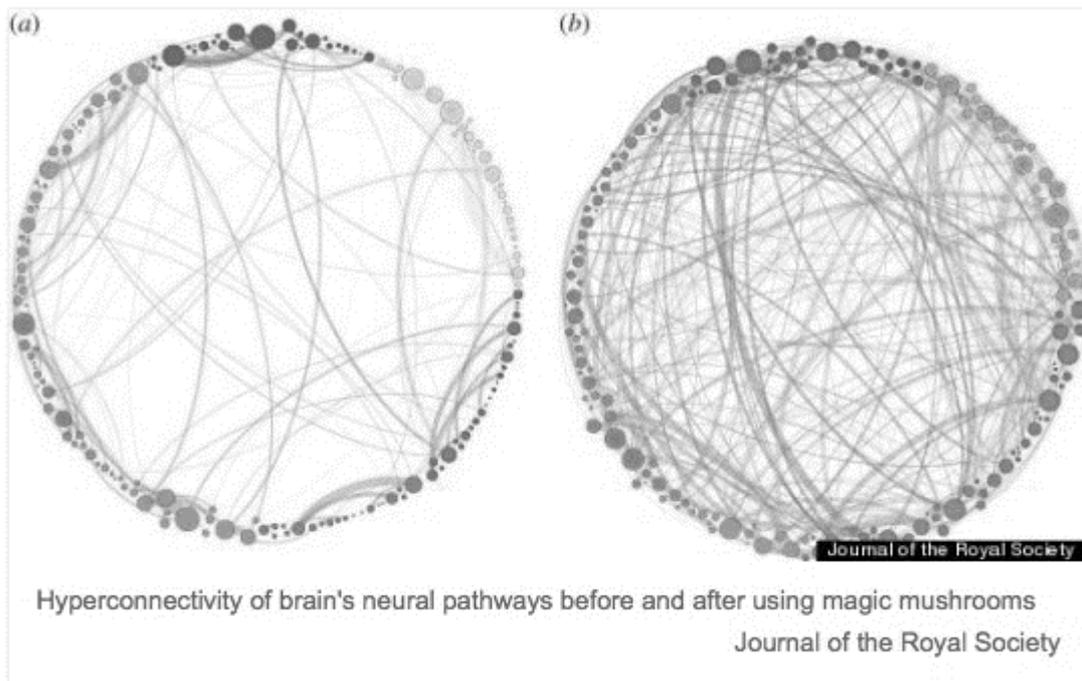


Figure 1: 2

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