Stephen Ross, Anthony Bossis, Jeffrey Guss, Gabrielle Agin-Liebes, Tara Malone, Barry Cohen, Sarah E Mennenga, Alexander Belser, Krystallia Kalliontzi, James Babb, Zhe Su, Patricia Corby and Brian L Schmidt. - November 30, 2016

## Rapid and sustained symptom reduction following psilocybin treatment for anxiety and depression in patients with life-threatening cancer: A randomized controlled trial

Psychopharm

[Excerpts from the publication]

#### Methods:

In this double-blind,

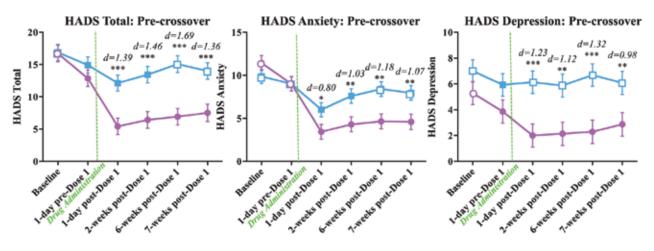
placebo-controlled, crossover trial, 29 patients with cancer-related anxiety and depression were randomly assigned and received treatment with single-dose psilocybin (0.3 mg/kg) or niacin, both in conjunction with psychotherapy. The primary outcomes were anxiety and depression assessed between groups prior to the crossover at 7 weeks.

#### **Results:**

Prior to the crossover, psilocybin produced immediate, substantial, and sustained improvements in anxiety and depression and led to decreases in cancer-related demoralization and hopelessness, improved spiritual wellbeing, and increased quality of life. At the 6.5-month follow-up, psilocybin was associated with enduring anxiolytic and anti-depressant effects (approximately 60–80% of participants continued with clinically significant reductions in depression or anxiety), sustained benefits in existential distress and quality of life, as well as improved attitudes towards death. The psilocybin-induced mystical experience mediated the therapeutic effect of psilocybin on anxiety and depression.

#### **Conclusions:**

In conjunction with psychotherapy, single moderate-dose psilocybin produced rapid, robust and enduring anxiolytic and anti-depressant effects in patients with cancer-related psychological distress.



Primary outcome variables: cancer-related anxiety and depression (pre-crossover).

Roland R Griffiths, Matthew W Johnson1, Michael A Carducci, Annie Umbricht, William A Richards, Brian D Richards, Mary P Cosimano and Margaret A Klinedinst - November 30, 2016

### Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer: A randomized double-blind trial

[Excerpts from the publication]

#### Methods:

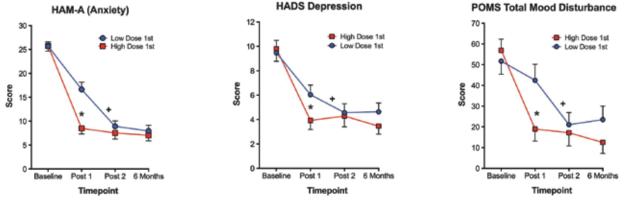
51 Participants with a potentially life-threatening cancer diagnosis and a diagnosis of anxiety and/or mood symptoms were recruited. A variety of types of cancer included. A two-session, double-blind cross-over design compared the effects of a low versus high psilocybin dose on measures of depressed mood, anxiety, and quality of life, as well as measures of short-term and enduring changes in attitudes and behavior.

#### **Results:**

No serious adverse events attributed to psilocybin administration occurred. Participants attributed to the high-dose experience positive changes in attitudes about life, self, mood, relationships and spirituality, with over 80% endorsing moderately or higher increased well-being or life satisfaction. These positive effects were reflected in significant corresponding changes in ratings by community observers (friends, family, work colleagues) of participant attitudes and behavior. For the clinician-rated measures of depression and anxiety, respectively, the overall rate of symptom remission at 6 months was 65% and 57%.

#### **Conclusions:**

When administered under psychologically supportive, double-blind conditions, a single dose of psilocybin produced substantial and enduring decreases in depressed mood and anxiety along with increases in quality of life and decreases in death anxiety in patients with a life-threatening cancer diagnosis.



Effects of psilocybin on selected outcome measures that were assessed at Baseline, Post-session 1 (5 weeks after Session 1), Post-session 2 (5 weeks after Session 2), and 6-month follow-up.



harles S Grob, Alicia L Danforth, Gurpreet S Chopra, Marycie Hagerty, Charles R McKay, Adam L Halberstadt, George R Greer **- September 6, 2010** 

# Pilot study of psilocybin treatment for anxiety in patients with advanced-stage cancer

JAMA Psychiatry

[Excerpts from the publication]

#### Methods:

Twelve adults with advanced-stage cancer and anxiety. A double-blind, placebo-controlled study of patients with advanced-stage cancer and anxiety, with subjects acting as their own control, using a moderate dose (0.2 mg/kg) of psilocybin. A clinical research unit within a large public sector academic medical center. In addition to monitoring safety and subjective experience before and during experimental treatment sessions, follow-up data including results from the Beck Depression Inventory, Profile of Mood States, and State-Trait Anxiety Inventory were collected unblinded for 6 months after treatment.

#### **Results:**

Safe physiological and psychological responses were documented during treatment sessions. There were no

clinically significant adverse events with psilocybin. The State-Trait Anxiety Inventory trait anxiety subscale demonstrated a significant reduction in anxiety at 1 and 3 months after treatment. The Beck Depression Inventory revealed an improvement of mood that reached significance at 6 months; the Profile of Mood States identified mood improvement after treatment with psilocybin that approached but did not reach significance.

#### **Conclusions:**

This study established the feasibility and safety of administering moderate doses of psilocybin to patients with advanced-stage cancer and anxiety. Some of the data revealed a positive trend toward improved mood and anxiety. These results support the need for more research in this long-neglected field.