The study conducted at New York University (NYU; Ross et al., 2016) was methodologically similar but not identical to that conducted at Johns Hopkins (JHU; Griffiths et al., 2016). Both studies used randomized, double-blind, crossover designs to compare a moderate-high dose of psilocybin (21 and 22 mg/70 kg) with a control condition in patients with life-threatening cancer; both used a range of self-reported measures of anxiety and depression; both conducted a six-month follow-up; both showed that a single-dose of psilocybin can produce substantial and sustained decreases in depression, anxiety, and existential distress; and both suggested that a mystical experience was associated with the therapeutic outcome.

However, the two studies differed in several important respects. The NYU study had a smaller sample size (N=29) than the JHU study (N=51). With regard to the comparison condition, the NYU study used niacin as a control in contrast to the JHU study that used a low dose of psilocybin and instructions that helped minimize the role of expectancy. Also, the NYU study exclusively used patient self-report outcome measures rather than a combination of the self-report, clinician-rated, and community-observer rated outcome measures used in the JHU study. A strength of the NYU study compared with the JHU study is that it assessed outcomes the day after the psilocybin session, thus allowing the conclusion of rapid onset of therapeutic action.

In contrast to the JHU study, whose clinical support staff did not receive formalized psychotherapeutic training, the NYU support staff included only licensed mental-health therapists who received more formalized didactic and clinical training, with considerable emphasis on psychotherapeutic process during the pre- and post-psilocybin meetings with patients. Despite the less formal psychotherapy approach used in the JHU study, the overall baseline versus six months post effect size changes on the same key measures of anxiety and depression (the Hospital Anxiety and Depression Scale, Beck Depression Inventory, and the State–Trait Anxiety Inventory) were somewhat higher in the JHU study (mean Cohen’s $d=1.7$, tables 4 and 5) than they were in the NYU study (mean Cohen’s $d=1.2$, table S1), thus suggesting that the more formalized therapist training did not confer a significant enduring therapeutic advantage.

Overall, the systematic replication of the main outcomes across two sites contributes significantly to confidence of the robustness of the finding that a single administration of psilocybin may have substantial and enduring antidepressant and anti-anxiety effects in patients with clinically significant cancer-related anxiety and depression.

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