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## RESEARCH ARTICLE

# Effects of Psilocybin on Religious and Spiritual Attitudes and Behaviors in Clergy from Various Major World Religions

Roland R. Griffiths,<sup>1,2,‡</sup> Robert Jesse,<sup>1,\*\*</sup> William A. Richards,<sup>1,\*\*</sup> Matthew W. Johnson,<sup>3</sup> Nathan D. Sepeda,<sup>1,4</sup> Anthony P. Bossis,<sup>5,6,\*†</sup> and Stephen Ross<sup>5,7,†</sup>

### Abstract

**Background:** Although historical writings, anthropological accounts, and experimental studies document associations between psilocybin use and religion, no prospective experimental study has investigated how the effects of psilocybin are experienced and interpreted by religious clergy. This exploratory study evaluated the overall safety and the acute and enduring effects of psilocybin in clergy.

**Methods:** Participants were psychedelic-naïve clergy from various major world religions. A randomized, parallel group, waitlist control design was used to assess the effects of two supported psilocybin sessions, with participants receiving 20 and then 20 or 30 mg/70 kg about 1 month later. Outcomes were compared between the Immediate Group ( $n = 13$ ) and the Delayed Group ( $n = 16$ ) at 6 months after screening using self-report measures. The effects of psilocybin were also assessed on session days and 4 and 16 months after the second psilocybin session in the 24 participants who completed both sessions.

**Results:** The primary outcome assessment at 6 months after screening showed that, compared with the delayed control group, participants who had received psilocybin reported significantly greater positive changes in their religious practices, attitudes about their religion, and effectiveness as a religious leader, as well as in their non-religious attitudes, moods, and behavior. Follow-up assessments showed that positive changes in religious and non-religious attitudes and behavior were sustained through 16 months after the second psilocybin session. At that time, participants rated at least one of their psilocybin experiences to be among the top five most spiritually significant (96%), profoundly sacred (92%), psychologically insightful (83%), and psychologically meaningful (79%) of their lives. Furthermore, 42% rated one of their experiences to be the single most profound of their lifetime. At 16-months follow-up, most (79%) strongly endorsed that the experiences had positive effects on their religious practices (e.g., prayer or meditation) and their daily sense of the sacred, and most (71%) reported positive changes in

<sup>1</sup>Department of Psychiatry and Behavioral Sciences, Center for Psychedelic and Consciousness Research, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

<sup>2</sup>Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

<sup>3</sup>Sheppard Pratt, Center for Excellence in Psilocybin Research and Treatment, Baltimore, Maryland, USA.

<sup>4</sup>Center for Psychedelic Drug Research and Education, Ohio State University College of Social Work, Columbus, Ohio, USA.

<sup>5</sup>NYU Langone Center for Psychedelic Medicine, Department of Psychiatry, New York University (NYU) Grossman School of Medicine, New York, New York, USA.

<sup>6</sup>Department of Classics and Religious Studies, University of Ottawa, Ottawa, Canada.

<sup>7</sup>NYU Institute for Translational Neuroscience, New York, New York, USA.

<sup>†</sup>Stephen Ross and Anthony P. Bossis are co-senior authors who have contributed equally to this work.

<sup>‡</sup>Dr. Griffiths died on 16 October 2023, after data analysis was completed and prior to finalizing this article.

<sup>\*\*</sup>In the view of the co-senior authors, Robert Jesse and William A. Richards have contributed equally to this work.

\*Address correspondence to: Anthony P. Bossis, NYU School of Medicine. E-mail: anthony.bossis@nyulangone.org

past 3 years, grant support for clinical research from the National Institute on Drug Abuse (NIDA), National Cancer Institute (NCI), Heffter Research Institute, Usona Institute, the CSP Fund, Multidisciplinary Association for Psychedelic Studies (MAPS), and Reset Pharmaceuticals. He is Director of the NYU Langone Center for Psychedelic Medicine Research and Training Program, funded by MindMed and is listed as a co-inventor in two provisional patent applications (N420838US and N419987US) related to the use of psilocybin to treat psychiatric and existential distress in cancer, filed by New York University Grossman School of Medicine and licensed by Reset Pharmaceuticals. He has waived all rights and has no prospect of financial gain in relation to these patent applications. Of note, although some of the authors receive federal funding for psychedelics research, no federal funds were used to fund this trial.

The studies were conceived together with the intention to combine data from the JHU and NYU studies as done in this article. The studies used nearly identical protocols. However, the studies were run with separate institutional review boards (IRBs) (Johns Hopkins Medicine IRB monitored the JHU site while the NYU Grossman School of Medicine IRB monitored the NYU site), separate investigator-initiated INDs, and separate participants. R.G. was the principal investigator (PI) at the JHU site and S.R. was the PI at the NYU site.

The Johns Hopkins Medicine Institutional Review Board (JHM IRB) conducted an audit of the JHU site (IRB00036973—"Effects of Psilocybin-facilitated Experience on the Psychology and Effectiveness of Professional Leaders in Religion") and concluded that the following must be reported to all journals and disclosed in all publications where data related to this study may be published: (1) There were two unapproved study team members, one who was also a study funding sponsor, directly engaged in the research. (2) There was an additional approved study team member whose role as a funding sponsor of the study was not disclosed to the IRB and who directly led the qualitative analysis. (3) Conflicts of interest related to the two individuals who were engaged in the research and also served as funding sponsors were not appropriately disclosed nor managed. (4) The funding sponsorship for this study was not disclosed to the JHM IRB.

### Funding Information

Funding for this study was provided by grants from the CSP Fund, the Turnbull Family Foundation, and the Riverstyx Foundation. Re-imbursement for travel and lodging was provided to participants at the Johns Hopkins site who traveled from out of state or country.

The mission statements of the funding organizations are provided, as some are relevant to the content of the study. They are as follows:

- **The CSP Fund** is managed by the San Francisco Foundation, a 501(c)(3) public charity, and is advised by R.J. It is the successor to the Council on Spiritual Practices, a 501(c)(3) public charity convened by R.J. as "a collaboration among spiritual guides, experts in the behavioral and biomedical sciences, and scholars of religion, dedicated to making direct experience of the sacred more available to more people." The CSP Fund received contributions for this study from the RiverStyx Foundation, MST 1998 Trust FBO T C Swift, the Turnbull Family Foundation, Carey and Claudia Turnbull, and Dr. Bronner's. R.J. was involved in the conception and design of this study and in the preparation of this article.
- **Turnbull Family Foundation** is a 501(c)(3), further classified as a private foundation within the meaning of Section 509(a). It is required to file a Form 990-PF return of private foundation annually. It has no mission statement. It has donated exclusively to other 501(c)(3)'s, solely awarding grants for scientific research.
- **The RiverStyx Foundation** is a 501(c)(3) charitable organization co-directed by T. Cody Swift. Its mission statement indicates that it "works to provide a bridge to the relinquished parts of ourselves, our society, and our ecology by funding and initiating projects that demonstrate the potential for healing when life is embraced in its fullest expression."

### Supplementary Material

Supplementary Data S1  
Supplementary Data S2  
Supplementary Data S3  
Supplementary Data S4  
Supplementary Table S1  
Supplementary Table S2  
Supplementary Table S3  
Supplementary Table S4  
Supplementary Table S5

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