RESEARCH ARTICLE

Both partners practicing orgasmic meditation report having a mystical-type experience: results using the Mystical Experience Questionnaire [version 1; peer review: awaiting peer review]

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Abstract

Background: Practitioners in a variety of spiritual/religious traditions have described "mystical experiences", defined by a common set of qualities. The "Mystical Experience Questionnaire" (MEQ30) provides a validated and quantitative measure of mystical experience, and has been used successfully to demonstrate that the hallucinogenic substance psilocybin triggers a mystical-type experience. Orgasmic Meditation (OM) is a structured, partnered meditative practice involving manual stimulation of the clitoris. Although the partners in an OM have different roles (one is stroking, and the other is being stroked), both claim benefit from the practice. The aim of the current study is to use the MEQ30 to assess to what extent participants report mystical experiences during OM, and to what extent that experience is correlated between the partners.

Methods: In Study 1, 780 participants completed the MEQ30 with a single powerful OM in mind. In Study 2, 56 pairs of participants (both partners) completed the MEQ30 after their next OM. If the respondent had a score ≥60% of the maximum possible score on each of the four subscales of the MEQ30, this was considered a "complete" mystical experience.

Results: Respondents from Study 1 reported an MEQ total score of 3.35 (SD = 1.08), with 62% of respondents reporting a complete mystical experience. Respondents from Study 2 reported an MEQ total score of 3.21 (SD = 0.92), with 23% reporting a complete mystical experience. We found strong relationships between MEQ total score and role (i.e., stroker or strokee), interrater agreement within-group index (aWG) = 0.46, and an even stronger relationship between partners and MEQ total score, aWG=0.71.

Open Peer Review

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Any reports and responses or comments on the article can be found at the end of the article.

Conclusions: These findings suggest that OM can trigger a substantial mystical experience in both partners. Whether the brains of people who OM show similar activity changes to those having other mystical experiences awaits future study.

Keywords
mystical experience, orgasm, arousal, meditation, mindfulness, survey research, factor analysis

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Author roles: Siegel V: Conceptualization, Investigation, Methodology, Project Administration, Supervision, Writing – Original Draft Preparation, Writing – Review & Editing; **Emmert-Aronson B**: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing

Competing interests: During this study, Vivian Siegel worked as a consultant and served as Director of Science for the Institute of OM Foundation, a nonprofit that supports research on Orgasmic Meditation, and the study was designed and performed by request of the foundation. The foundation also circulated information about the study to potential participants and provided a Qualtrics account for our use in data collection. Benjamin Emmert-Aronson also received compensation directly from the foundation during the execution of this study. Both authors have also been trained to teach Orgasmic Meditation, and have personal experience of the practice; however, neither earned money from teaching Orgasmic Meditation during this study. Vivian Siegel is currently a lecturer in the Department of Biology at Massachusetts Institute of Technology and a research professor in the Department of Medicine at Vanderbilt University School of Medicine; however, this work was done independently of her roles at these institutions.

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Introduction

Practitioners in a variety of spiritual/religious traditions have described life-altering experiences, now referred to as "mystical experiences." Analyzing firsthand accounts of mystical experience from a wide range of religious texts, British philosopher Walter Stace concluded that a common set of qualities defined the mystical experience, independent of culture or origin[1]. These qualities include mystical (internal unity, external unity, noetic quality, and sacredness), positive mood, transcendence of time and space, and ineffability.

Griffiths and colleagues developed a 30 question "Mystical Experience Questionnaire", or MEQ30, which provides a validated and quantitative measure of these four aspects of mystical experience[2,3]. The MEQ30 has been used successfully to demonstrate that the hallucinogenic substance psilocybin triggers a mystical-type experience[4]. Furthermore, psilocybin in combination with psychotherapy was effective in treating a number of ailments, including nicotine addiction[5,6], treatment-resistant depression[7], and other mood and drug use disorders[8]. In each case, the strength of the mystical experience correlated with the effectiveness of psilocybin in treatment.

Orgasmic Meditation (OM) is a structured, partnered meditative practice involving manual stimulation of the clitoris[9]. In the 15-minute practice, one person strokes the clitoris of another "with no goal other than to feel the sensation."[10]. OM practitioners aim to develop heightened awareness through a focus on sensation[11].

Although the roles of the partners in an OM practice are distinct (one is stroking, and the other is being stroked), both partners claim benefit from the practice, including improved intimate/romantic partnerships, friendships, physical health, mental health, professional life, and spiritual/religious life, regardless of age, sexuality, education, and income[11]. OM has been shown to associate with increased emotional closeness between partners[9]. In addition, OM practitioners report deep transformative experiences during and as a result of their practice[12], some of a mystical nature[13]. The aim of the current study is to use the MEQ30 to assess whether and to what extent participants report mystical experiences during OM, and to what extent that experience is correlated between the partners.

Methods

Ethical considerations

Both studies were submitted as Protocol Number 090817OM001to the IntegReview institutional review board (IRB) for review. This protocol was determined to be exempt from requiring full IRB review according to code of federal regulations (CFR) 46.101(b) exempt category #2, as a survey that did not collect any identifying information. Language clarifying the voluntary nature was included in the survey. Since requiring collection of informed consent would provide identifying information, the IntegReview IRB granted a waiver of informed consent documentation.

Study 1 – Individual MEQ

Participants. A total of 809 people (n=809) started the survey. However, the final sample consisted of 780 participants with analyzable data, 23 participants did not fill any quantitative data, three participants entered so little data their results were uninterpretable, and three participants did not fill any demographic data. Sample sizes reported below vary slightly as participants sometimes opted out of particular questions (e.g., gender, age, etc.). Inclusion criteria included practicing of OM, being 18 years of age or older, and an ability to read and respond in English. There were no exclusion criteria.

Study design and setting. Participants received an email regarding the introductions to the study, and a request to complete the questionnaires with "a single powerful OM in mind". Data were gathered through an online survey administered through Qualtrics. Exempt determination was provided on September 25, 2017. Data were collected between November 1, 2017 and January 5, 2018. The study link was shared in relevant Facebook groups, as well as in an email newsletter to OM-trained practitioners.

Data measures. The survey gathered basic demographic information, including age, gender, race/ethnicity, and relationship status (See extended data[14]). In addition, participants were queried about their OM experience, including current frequency and length of time of practice and with whom they practice OM. They were also asked about their experience meditating and using psilocybin.

Mystical Experience Questionnaire (MEQ) – The MEQ is a 30-item questionnaire which assesses mystical experiences across four dimensions[2,3] (See underlying data[14]). It has previously been used to assess mystical experiences following psilocybin use[4]. This test shows good to excellent reliability and validity[3].

Statistical analysis. Descriptive statistics, including means, standard deviations (SD), frequencies, and correlations are used to describe the data in this study. We examined demographics (e.g., age, race/ethnicity, OM experience, etc.), mystical experience, and the relationship between mystical experience and demographic variables. We also compared the mystical experience while practicing OM to the mystical experience while using psilocybin, as reported by Griffiths and colleagues[4].

Factor analysis was used to examine the factor structure of the MEQ. As several models have been examined in the past (c.f., 3), without clear independent replication of any of the models, we began with exploratory factor analysis (EFA) before proceeding to confirmatory factor analysis (CFA)[3].

Data were analyzed using *Mplus* Version 7.1[15]. We employed EFA to identify the factor structure that best fit our data. Given the negative effects of splitting a sample (i.e., loss of power),

without the gains of a true validation (i.e., each half would reflect the idiosyncrasies of the full sample), we did not split our sample.

Each item was constrained to load onto one factor in accordance with the original model. Robust maximum likelihood estimation was used to estimate all models because it does not depend on data normality. Geomin oblique factor rotation was utilized, and all item loadings described below are fully standardized. We examined goodness of fit using multiple indices, the Root Mean Square Error of Approximation (RMSEA) and its test of close fit (CFit), the standardized root mean square residual (SRMR), and the Comparative Fit Index (CFI). Good model fit was determined based on published guidelines provided by Hu and Bentler[16]: RMSEA close to or below 0.06 (CFit > 0.05), SRMR close to or below 0 .08, and CFI close to or above 0.95. Multiple fit indices were used as they assess different types of model fit (i.e., absolute fit, incremental fit, etc.), and, when used together, provide a more reliable, conservative evaluation (c.f., 17).

Study 2 – Partnered MEQ

Participants. A total of 119 people (n=119) initiated the survey. However, the final sample consisted of 112 participants with analyzable data (56 pairs): three participants did not complete the survey with a partner and four participants appeared to be duplicate respondents based on their demographic data. Sample sizes reported below vary slightly as participants sometimes opted out of particular questions (e.g., gender, age, etc.). Inclusion criteria included having had a consistent OM practice, being 18 years of age or older, and an ability to read and respond in English. There were no exclusion criteria.

Study design and setting. Participants received an email regarding the introductions to the study, and a request to complete the questionnaires immediately following an OM. Data were gathered through an online survey administered through Qualtrics. Exempt determination was provided on September 25, 2017. Data were collected between October 18, 2018 and December 24, 2018. The study link was emailed to OM-trained practitioners.

Data measures. The survey gathered basic demographic information, including age, gender, race/ethnicity, and relationship status (See extended data[14]). In addition, participants were queried about their OM experience, including current frequency and length of time that the participant has been practicing OM, with whom they practice OM and the role (stroker or strokee) they played in the OM they are describing. They were also asked about their experience meditating and using psilocybin. Participants were asked to fill in the survey immediately following their OM, first one partner, and then the other.

Mystical Experience Questionnaire (MEQ): See description of the MEQ in study 1 (See underlying data[14]). In this study, the MEQ was presented twice, with one partner filling out each one.

Statistical analysis. Descriptive statistics, including means, SD, and frequencies, are used to describe the data below. Correlations between variables were calculated in Excel. Intergroup reliability was calculated using R, with the interrater agreement within-group index aWG package[18]. We examined demographics (e.g., age, race/ethnicity, OM experience, etc.), mystical experience, and the relationship between mystical experience and demographic variables.

Results

Study 1 – Individual MEQ

Participants. The sample consisted of 780 people. The sample reflected an even gender distribution, 339 men (44%), 422 women (54%), one person who identified as transgender, and four people who identified as other. The majority (77%) identified as heterosexual, with 16% identifying as bisexual, 2% as queer, and 4% as other. The majority of participants identified as Caucasian, non-Hispanic (65.2%). Participants also identified as African-American (5.1%), Asian (7.5%), Native American (0.1%), Hispanic (5.7%), Pacific Islander (0.5%), other (8.4%), and multi-racial (6.0%). Participants spanned a wide age range, with 12.7% under 30, 30.8% (30–39), 23.7% (40–49), 19.7% (50–59), 7.7% (60–69), 1.3% (70–79), and 0.3% 80 or more years of age. Participants represented a wide range of OM experience, with 17.7% having 0–6 months, 13.2% having 712 months, 24.8% having 1–2 years, 16.5% having 2–3 years, 15.4% having 3–5 years, and 9.1% having five or more years of OM experience. Participants also represented a wide range of OM practice, with 15.4% participating in OM once per month, 11.4% twice per month, 16.3% weekly, 19.8% 2–3 times per week, 16.1% 3–5 times per week, and 17.5% participating in OM daily. In addition to OM, many participants identified meditating regularly: 12.9% reported not meditating at all, 8.5% once per month, 7.3% twice per month, 13.8% weekly, 15.9% 2–3 times per week, 15.3% 3–5 times per week, and 25.3% meditating daily. Finally, we inquired about psilocybin use. The majority of participants reported using psilocybin infrequently (or not at all) and not within the past year (66.5%), 5.4% reported using it frequently, but not within the past year, 15.2% reported using it infrequently, and within the past year, and 5% reported using it frequently within the past year.

Descriptive statistics. On average, participants reported moderate to strong mystical experiences: Total MEQ = 3.35 (SD = 1.08). Women experienced higher levels of mysticism (3.55) than men (3.11), $t(759) = 5.64$, $p < 0.001$. See Table 1 for MEQ subscales and gender differences. Following Cohen's effect size guidelines[19], we found moderately strong correlations between MEQ total score and OM frequency ($r = 0.28$) and meditation frequency ($r = 0.24$). We found weak correlations between MEQ total score and number of months practicing OM ($r = .15$), age ($r = -.07$), and history of psilocybin use ($r = .04$). See Table 2 for MEQ subscales and demographic variable correlations.

Exploratory factor analysis. Models with between one- and five-factors were examined, with a combination of theoretical interpretability, eigenvalues, parallel analysis, and fit indices to determine the best model. Both three- and four-factor models fit the data well (see Table 3 for a comparison of the five models). While eigenvalues and parallel analysis suggested the three-factor model over the four-factor, fit indices and

Table 1. MEQ Scores by Gender.

	Mystical	Positive Mood	Transcendence	Ineffability	Total
Men	2.94	3.63	2.83	3.47	3.11
Women	3.40	3.91	3.38	3.88	3.55
Total	3.20	3.79	3.13	3.70	3.35

*All subscales differed between men and women, $p < 0.001$
Likert-type rating from 0 (None at all) to 5 (Extreme)

Table 2. Correlations between Demographic Variables and MEQ Scales.

Study 1

	Mystical	Positive Mood	Transcendence	Ineffability	Total
OM Frequency	0.26	0.26	0.25	0.25	0.28
Meditation Frequency	0.26	0.18	0.23	0.11	0.24
OM Experience	0.15	0.13	0.15	0.07	0.15
Age	-0.08	-0.06	-0.04	-0.09	-0.07
Psilocybin Use	0.05	0.02	0.02	0.00	0.04

Study 2

	Mystical	Positive Mood	Transcendence	Ineffability	Total
OM Frequency	0.1	0.17	0.09	0.17	0.13
Meditation Frequency	0.28	0.34	0.17	0.15	0.29
OM Experience	0.18	0.09	0.12	0.14	0.16
Age	-0.03	-0.1	-0.02	-0.06	-0.04
Psilocybin	-0.1	0.02	-0.06	-0.09	-0.08

Table 3. Model Comparison.

	AIC	BIC	Chi Sq	df	RMSEA	CFI	SRMR
Stace	64249.229	64682.304	2100.59	402	0.074	0.87	0.047
Hood	64337.914	64770.989	2155.865	402	0.075	0.866	0.048
Barrett 4	63185.257	63632.303	1416.139	399	0.057	0.922	0.038
EA 3	63478.433	63911.508	1609.298	402	0.062	0.907	0.041
EA 4	63145.206	63592.252	1390.385	399	0.057	0.924	0.038

interpretability favored the four-factor model. Because of this, we examined both the three and four-factor model. In both models, the factors were very similar to the factors found by Barrett and colleagues[3], and we have utilized their factor names here. We examined which factor items loaded onto strongly (> 0.40), as well as salient cross-loadings.

The main distinction of the three-factor model was that it largely collapsed the factors of Positive Mood and Ineffability into one factor. There were also item level discrepancies as follows: Item 4 "gain of insightful knowledge" did not load strongly onto any factor, and loaded comparably onto Mystical Experience (0.39) and Positive Mood/Ineffability (0.37); we

assigned it to Mystical Experience because it was a slightly stronger loading and matches past research[2]. Item 12 "feelings of peace and tranquility" did not load strongly onto any factor, though the loading on Positive Mood/Ineffability was 0.36, so we assigned it to that factor. Item 13 "sense of being 'outside of time'" loaded strongly on both Mystical Experience (0.42) and Time/Space (0.56) factors, therefore, we assigned it to Time/Space as both the stronger loading and consistency with past research. Item 19 "being in a realm with no space boundaries" loaded strongly on both Mystical Experience (0.60) and Time/Space (0.40); because it was such a drastic increase in loading, we assigned it to Mystical Experience despite this conflicting with past research. Item 21 "sense of reverence" loaded strongly on Positive Mood/Ineffability (0.44), but not Mystical Experience (0.35) as past research has suggested[2]; therefore, we assigned it to Positive Mood/Ineffability.

Within the four-factor model, there were also several exceptions as follows: Item 5 "feeling that you experienced eternity or infinity" did not load strongly on any factor, though loaded on the Mystical Experience factor at 0.38, so we assigned it to this factor. Item 15 "sense of being at a spiritual height" loaded strongly on both Mystical Experience (0.50) and Positive Mood 0.43) factors; therefore, we assigned it to Mystical Experience because that is the stronger loading and matches past research. Item 19 "being in a realm with no space boundaries" loaded strongly on both Mystical (0.45) and Time/Space (0.49) factors; we assigned it to Time/Space as that was the stronger loading and aligned with past research. Finally, Item 21 "sense of reverence" did not load strongly on its previously hypothesized factor, Mystical (0.22), but did load strongly on Positive Mood (0.50). Because of this, we assigned it to Positive Mood. See Table 4 for all factor loadings for the above EFAs.

Confirmatory factor analysis. Utilizing the EFAs and decision points described above, both the three- and four-factor models were estimated. These models were compared with the four-factor model identified by Barrett and colleagues[3], as well as the comparison models identified in their previous validation of the MEQ: the three-factor Hood model, and the three-factor Stace model[2]. None of the three-factor models (i.e., the Hood model, Stace Model, or current three-factor model[3] demonstrated good model fit (see Table 3 for a comparison of fit indices). Both four-factor models demonstrated adequate to good model fit, though were not without areas of misfit, as evidenced by their significant χ^2 values. The current four-factor model, with item 21, "sense of reverence," moved from Mystical Experience to Positive mood, fit better than the model from Barrett and colleagues[3], as evidenced by a decrease in Bayesian Information Criterion (BIC) of 40.05 points, or current three-factor model) demonstrated good model fit (see Table 3 for a comparison of fit indices). Both four-factor models demonstrated adequate to good model fit, though were not without areas of misfit, as evidenced by their significant χ^2 values. The current four-factor model, with item 21, "sense of reverence," moved from Mystical Experience to Positive mood, fit better than the model from Barrett and colleagues[3], as evidenced by a decrease in BIC of 40.05 points. This model largely fit the data well, χ^2 (399) = 1390.38, $p < 0.01$, CFI = .92, RMSEA = 0.06, SRMR = 0.04.

Modification indices identify areas of strain in the model. While it may be tempting to utilize this tool to improve model fit, this practice often leads to overfitting of models which do not replicate in the future (c.f. 17). Because of this, we did not make post-hoc changes based on these indices, though several are reported here. The largest modification index (MI = 52.84) suggested a cross-loading of item 19, "being in a realm with no space boundaries" onto the Mystical Experience factor in addition to the Time/Space factor. Similarly, a strong MI (39.78) suggested a cross-loading between item 5 "feeling that you experienced eternity or infinity" and the Space/Time factor, in addition to Mystical Experience. In the EFA these items loaded strongly on both factors, and these MIs point to this overlap. These factors are strongly correlated (r = 0.88). The second strongest MI (46.19) suggested correlating the errors of item 9 "certainty of encounter with ultimate reality (in the sense of being able to "know" and "see" what is really real at some point during your experience," with item 23, "You are convinced now, as you look back on your experience, that in it you encountered ultimate reality (i.e., that you "knew" and "saw" what was really real)," certainly due to their highly overlapping language. This may suggest redundancy in keeping both items. One final MI (35.09) suggested correlating the errors of item 21, "sense of reverence" with item 24, "Feeling that you experienced something profoundly sacred and holy," as mentioned before, likely due to their overlapping meanings. Again, this may suggest redundant items.

Study 2 – Partnered MEQ

Participants. The sample consisted of 112 people. The sample was almost split evenly, with 55 men (49%), and 57 women (51%). The majority of participants identified as Caucasian, non-Hispanic (67.9%). Participants also identified as African-American (5.4%), Asian (8.9%), Hispanic (8.0%), and multi-racial (9.8%). Participants spanned a wide age range, with 12.5% under 30, 43.8% (30–39), 25.9% (40–49), 11.6% (50–59), 5.4% (60–69), 0.9% 70 or more years of age. Participants represented a wide range of OM experience, with 1.8% having 0–6 months, 10.7% having 7–12 months, 17.0% having 1–2 years, 23.2% having 2–3 years, 17.0% having 3–5 years, and 28.6% having five or more years of OM experience. Per study design, participants represented a narrower range of OM practice, with most participants participating in OM at least twice per week or more (67.9%). 5.4% reported participating in OM once per month, 8.0% twice per month, 18.8% weekly, 31.3% 2–3 times per week, 31.3% 3–5 times per week, and 5.4% daily. In addition to OM, many participants identified meditating regularly: 8.9% reported not meditating at all, 3.6% once per month, 5.4% twice per month, 8.0% weekly, 19.6% 2–3 times per week, 19.6% 3–5 times per week, and 34.8% meditating daily. Finally, we inquired about psilocybin use: 37.5% of participants reported never using psilocybin, 6.3% reported using

Table 4. Factor Loadings from 3 and 4 factor Exploratory Factor Analyses.

Item	Factor 1	Factor 2	Factor 3	Item	Factor 1	Factor 2	Factor 3	Factor 4
1	-0.01	0.26	0.55	1	-0.08	0.56	0.28	0.01
2	0.07	0.66	0.11	2	0.03	0.08	0.32	0.45
3	-0.09	0.68	0.25	3	-0.02	0.08	0.77	0.06
4	0.39	0.37	-0.01	4	0.41	-0.04	0.25	0.17
5	0.48	0.19	0.26	5	0.38	0.30	0.10	0.15
6	0.56	0.21	0.08	6	0.53	0.09	0.12	0.13
7	0.20	0.18	0.53	7	0.14	0.53	0.29	-0.07
8	0.20	0.44	-0.02	8	0.11	0.01	0.07	0.46
9	0.77	0.07	-0.04	9	0.79	-0.05	0.09	-0.01
10	0.06	0.61	0.20	10	0.14	0.03	0.73	0.02
11	0.13	0.16	0.59	11	0.01	0.62	0.20	0.01
12	0.26	0.36	0.05	12	0.05	0.14	-0.12	0.61
13	0.42	0.00	0.56	13	0.23	0.68	0.00	0.04
14	0.64	0.18	0.11	14	0.54	0.15	0.02	0.21
15	0.62	0.31	-0.04	15	0.50	0.02	-0.04	0.43
16	0.67	0.14	0.11	16	0.57	0.17	-0.01	0.19
17	0.20	0.56	0.06	17	0.02	0.10	0.06	0.66
18	0.86	-0.03	0.04	18	0.82	0.08	-0.01	0.00
19	0.60	-0.05	0.40	19	0.45	0.49	-0.03	0.02
20	0.63	0.15	0.12	20	0.51	0.19	-0.03	0.24
21	0.35	0.44	0.04	21	0.22	0.10	0.03	0.50
22	0.24	0.19	0.55	22	0.03	0.67	0.05	0.20
23	0.87	0.00	-0.01	23	0.87	0.00	0.04	-0.05
24	0.57	0.36	-0.10	24	0.51	-0.08	0.07	0.35
25	0.86	0.00	-0.07	25	0.87	-0.06	0.02	-0.02
26	0.81	0.06	0.00	26	0.77	0.04	0.00	0.08
27	0.23	0.65	-0.01	27	0.15	-0.02	0.22	0.54
28	0.94	-0.04	0.01	28	0.92	0.04	0.00	-0.04
29	-0.02	0.61	0.18	29	0.07	0.02	0.67	0.06
30	0.09	0.67	-0.07	30	-0.10	-0.04	0.04	0.82

psilocybin infrequently and not within the past year, 28.6% reported using it frequently, but not within the past year, 5.4% reported using it infrequently and within the past year, and 21.4% reported using it frequently within the past year.

Quantitative analyses. On average, participants reported moderate mystical experiences: Total MEQ = 3.21 (SD = 0.92). Strokers' and strokees' total mysticism scores (mean = 3.12 and 3.30, respectively) did not differ significantly, t (55) = 1.19, p = 0.24. The only subscale to differ significantly was ineffability, where strokees reported higher levels of ineffability than strokers (mean = 3.80 and 3.41, respectively), t (55) = 2.31, p = 0.02. See Table 5 for MEQ subscales and role differences, as well as comparisons between study 1 (individual

Table 5. Mean Mystical Experience by Role and Study.

	Mystical	Positive Mood	Transcendence	Ineffability	Total
Individual (Study 1)	3.20	3.79	3.13	3.70	3.35
Partnered (Study 2)	3.04	3.57	3.10	3.60	3.21
Difference	0.16	0.22**	0.03	0.09	0.14
Individual study male	2.94	3.63	2.83	3.47	3.11
Individual study female	3.40	3.91	3.38	3.88	3.55
Difference	0.46**	0.28**	0.55**	0.41**	0.44**
Partnered study stroker	2.99	3.48	2.96	3.40	3.12
Partnered study strokee	3.09	3.65	3.23	3.80	3.30
Difference	0.09	0.17	0.27	0.40*	0.18

Likert-type rating from 0 (None at all) to 5 (Extreme)

* $p < 0.05$

** $p < 0.01$

reports on a powerful OM) and study 2 (partnered reports on the most recent OM). Following Cohen's effect size guidelines[19], we found moderately strong correlations between MEQ total score and meditation frequency (r = 0.29). We found weak correlations between MEQ total score and OM frequency (r = 0.13), number of months participating in OM (r = 0.16), age (r = -0.04), and history of psilocybin use (r = 0.08). See Table 5 for MEQ subscales and demographic variable correlations. In addition, we found strong relationships between MEQ total score and role (i.e., stroker or strokee), aWG = 0.46, but a significantly stronger relationship between partners and MEQ total score, aWG = 0.71, Zdiff = 2.10, p = 0.04.

Discussion/conclusion

These findings suggest that OM can trigger a substantial mystical experience in both partners. The response in this study is comparable in strength to the response reported by others to a moderate dose of psilocybin (10 mg/70kg[4]). The proportion of participants who reported a complete mystical experience was slightly higher than that reported to be found by the maximum dose of psilocybin administered in Griffiths and colleagues' study[4] (62% vs. 56%), though this percentage dropped when participants reported on their most recent OM (23%, which falls between the reports for the 10 and 20 mg/70kg doses). Women reported a slightly stronger response than men, but both partners reported moderate to strong mystical experiences. This was not just specific for the most powerful experiences. Experienced practitioners reported effects from their most recent OM that are moderate. Intriguingly, there is a strong concordance for the strength of the mystical experience with partners, more so than among practitioner role. We noted a stronger relationship between OM frequency and mystical experience in study 1 than in study 2. Our hypothesis is that this is because study 2 consisted of participants with an intentionally restricted range of OM frequency, i.e., more experienced practitioners, and restricted ranges generally cause a decrease in the strength of correlations.

Study limitations

This study relies on people opting in to complete the MEQ30 and associated demographic questions. It is possible that the respondents are somehow different in their experiences than the average OM practitioner, and/or are biased in favor of describing the practice as a mystical one. While we did not collect data on this, it is also possible that some of the respondents earn money from teaching OM and therefore may benefit from reports on the powerful effects of this practice. Because we collected no identifying information, we have no way of addressing these potential biases.

Frequency of practicing OM – cause or effect?

In study 1, we noticed that there was a correlation between the frequency of practicing OM and the strength of the mystical experience. There are several possible interpretations of this result: 1) the more frequently you practice, the more likely it is that you will, by chance, have a particularly powerful OM; 2) the more frequently you practice, the greater the effect on your brain and body, making the strength of the experience more powerful; and 3) the experience of a very powerful OM increases the likelihood that you will practice more frequently. Future studies could ask participants to note the approximate point in their practice that the OM they are describing occurred, whether they felt it had an impact on how frequently they now practice and whether they think that the frequency of powerful OM experiences changes over time.

We were surprised to find that strength of the most powerful OM did not correlate strongly to the duration of practice.

In contrast, Soler *et al.* demonstrated that frequency and lifetime practice were associated with higher mindfulness skills[20]. Furthermore, the benefits of OM seem to correlate with the number of OMs experienced[11]. One possible explanation of our finding is that OM practitioners who had not yet had a powerful OM (they were asked to think of one as they filled out the survey in study 1) did not participate.

Any study that relies on self-reporting for outcomes has similar limitations to this study. Future studies could look directly at the brains of people during OM and determine whether brain activity changes are consistent with the reports from the MEQ. Specifically, we would expect to see decreased activity in the Default Mode Network, and decreased connectivity between different areas of the Default Mode Network, as has been seen for psychedelics and deep meditative experiences[21].

Clinical implication

Given that OM apparently can trigger a mystical experience of a similar power to that reported to be occasioned by psilocybin, and that psilocybin seems to be effective in the treatment of mood and substance disorders, it is intriguing to speculate that OM might also be effective in the treatment of these disorders. Whether that is true awaits clinical study.

Data availability

Underlying data

Open Science Framework (OSF): Both partners practicing orgasmic meditation report having a mystical-type experience: results using the Mystical Experience Questionnaire. https://osf.io/6wtfr[14].

The data component of this project contains the following de-identified data:

- MEQ de-identified: Data from first part of study
- MEQ partnered de-identified: Data from second part of study

Extended data

Open Science Framework (OSF): Both partners practicing orgasmic meditation report having a mystical-type experience: results using the Mystical Experience Questionnaire. https://osf.io/6wtfr[14].

The survey component of this project contains the following extended data:

- MEQ30 Email for recruiting participants: Text used to recruit for first part of study
- Recruitment email survey study 2: Text used to recruit for second part of study
- Demographic questions used in study 1
- Demographic questions used in study 2

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