LSD, Madness and Healing:
Mystical Experiences as Possible Link between Psychosis Model and Therapy Model

Wießner I[1], Falchi M[1], Palhano-Fontes F[2], Feilding A[3], Ribeiro S[2], Tófoli LF[1]
[1] School of Medical Sciences, University of Campinas (UNICAMP), Campinas-SP, Brazil
[2] Brain Institute, Federal University of Rio Grande do Norte (UFRN), Natal-RN, Brazil
[3] The Beckley Foundation, Beckley Park, Oxford, UK

Introduction

For a century, two paradoxical models have dominated the research with classic psychedelics[1]:

Psychosis Model

- Psychedelic and psychotic experiences show perceptual, cognitive, behavioural and neuroscientific similarities[2]
- Aberrant salience, the aberrant assignment of salience to objects/ideas, is related to psychotic and anomalous experiences[3]

→ **Effects of LSD on aberrant salience?**

Therapy Model

- Psychedelics may induce benefits in depression, anxiety and substance use disorders[4]
- Psychedelics may increase psychotherapeutic tools such as suggestibility and mindfulness [5,6]

→ **Effects of LSD on suggestibility and mindfulness?**

This study sought to elucidate this paradoxical relationship by exploring the LSD psychosis model and therapy model, as measured by aberrant salience and suggestibility and mindfulness, respectively, and connecting them to the psychedelic experience.

Methods

In a randomized, double-blind, placebo-controlled, crossover design, 24 healthy volunteers (mean 35 ± S.D. 11 years) received a **low dose of 50µg lysergic acid diethylamide (LSD) or inactive placebo**. The psychotic experience was assessed by self-reported **aberrant salience** (Aberrant Salience Inventory, ASI), the therapeutic potential by a **suggestibility task** (Creative Imagination Scale, CIS) and **mindfulness questionnaires** (Five Facet Mindfulness Questionnaire, FFMQ; Mindful Attention Awareness Scale, MAAS; Experiences Questionnaire, EQ) and the psychedelic experience by several questionnaires (Altered State of Consciousness Questionnaire, ASC; Mystical Experiences Questionnaire, MEQ; Challenging Experiences Questionnaire, CEQ; Ego-Dissolution Inventory, EDI).

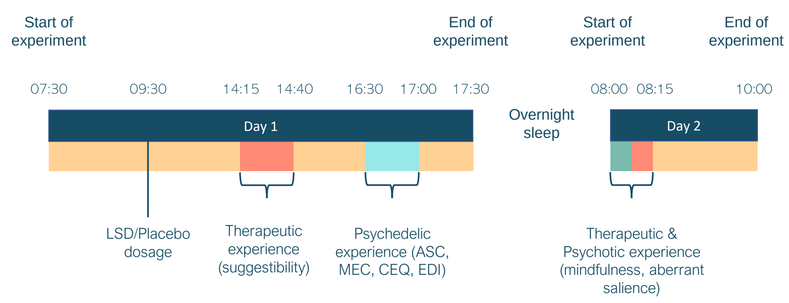

Figure 1: The study procedures. Suggestibility was measured after drug peak (+5h), the psychedelic experience at the end of the day (+7h) and aberrant salience and mindfulness the morning after drug administration (+22.5h).

Results & Discussion

Psychosis Model

Therapy Model

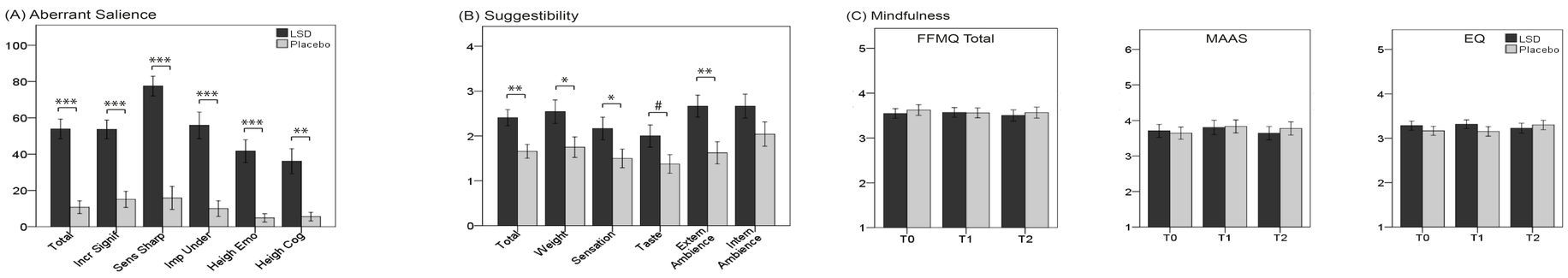

Figure 2: LSD induced psychotic- and partially therapeutic- like experiences as measured by increased (A) aberrant salience (ASI) and (B) suggestibility (CIS) but not (C) mindfulness (FFMQ, MAAS, EQ). Displayed are mean scores ± SEM (n=24). #p≤.06, *p≤.05, **p≤.01, ***p≤.001 ((A,C) corrected, (B) uncorrected).

Psychedelic Experience

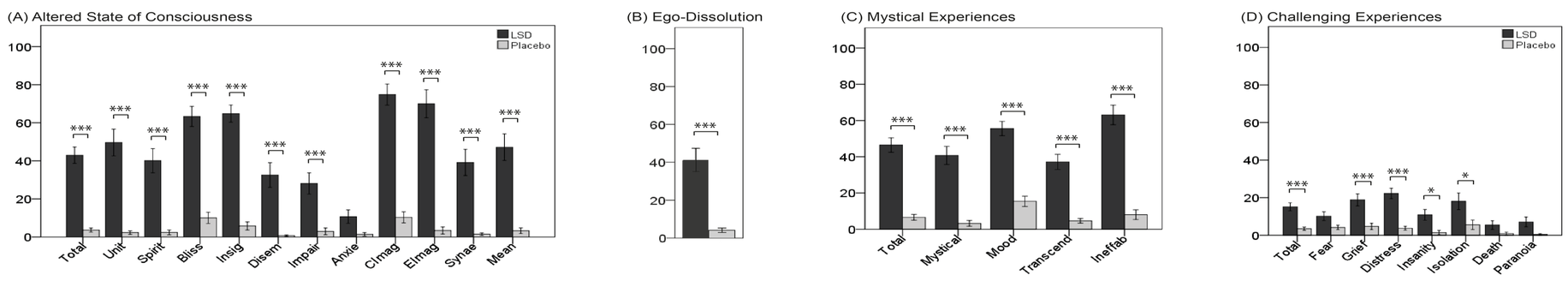

Figure 3: Figure 3: LSD induced a psychedelic experience, including (A) an altered state of consciousness, (B) ego-dissolution, (C) mystical and (D) challenging experiences. Displayed are mean scores ± SEM ((A) n=23, (B-D) n=24). *p≤.05, **p ≤.01, ***p≤.001 (corrected).

Linking Psychotic, Therapeutic and Psychedelic Experience

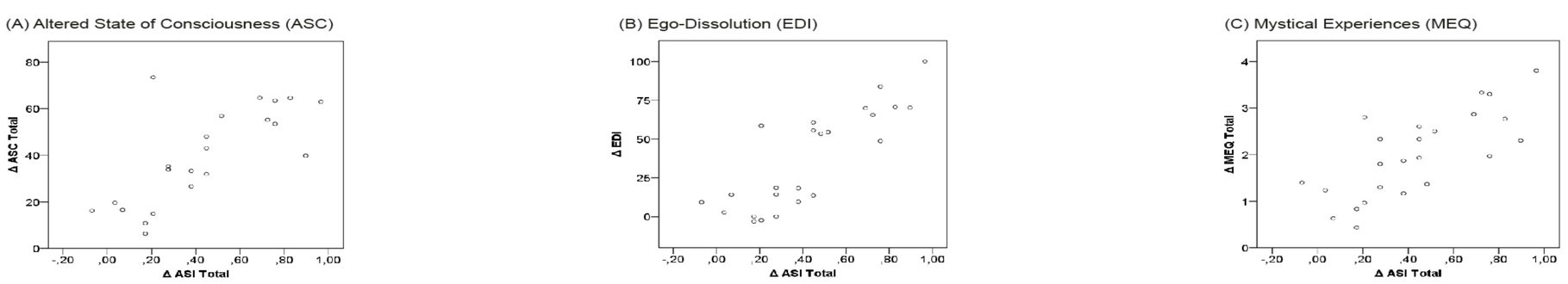

Figure 4: Scatterplots depicting the positive relationships between the LSD-induced aberrant salience (x-axis) and psychedelic experiences (y-axis), including (A) the altered state of consciousness (r=.71, p=.002, n=23), (B) ego-dissolution (r=.82, p<.001, n=24) and (C) mystical experiences (r=.72, p=.001, n=24).

Mystical experiences are common in the psychotic phenomenology, including, e.g., senses of noesis, heightened perception, communion with the divine and exulation[7]. Furthermore, mystical experiences are important in psychedelic-assisted psychotherapy, where they are related to long-term beneficial effects, such as reduced anxiety and depression[8]. Together with these previous findings, the high correlation with aberrant salience suggests that **mystical experiences might constitute the link between the LSD psychosis model and therapy model**.

Conclusions

The LSD state resembles a psychotic experience and offers a tool for healing. The link between psychosis model and therapy model might lie in mystical and ego-dissolution experiences. The results point to the importance of meaning attribution for the LSD psychosis model and indicate that psychedelic-assisted psychotherapy might benefit from therapeutic suggestions fostering mystical experiences.

References

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