Preregistration

Many-analysts Psychedelics Project: Underlying Factors of Psychedelic Questionaires

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Study Information

Title	Many-analysts Psychedelics Project: Underlying Factors of Psychedelic Questionaires
Description	This project, focusing on the analysis of psychedelic experiences, addresses a gap in psychedelic research: the diverse and sometimes conflicting scales used to measure such experiences. Despite the proliferation of research scales, there is a lack of consensus regarding the constructs being measured and their underlying factor structures. Our objective is to assess the factor structure of the most commonly employed scales and their potential overlap, utilizing factor and latent class analysis. The project revolves around two primary questions:

1. Whether the current dataset supports a common factor structure ("mystical experience") underlying the diverse scales measuring the psychedelic experience.
2. Identification of the best predictors of well-being according to our analysis.

- Which qeustionaires?

Hypotheses Enter your response here.

Design Plan

Study type **Observational Study**. Data will be analyzed from existing scales that measure psychedelic experiences, without the need for direct intervention or random assignment of treatments. This involves the statistical examination of previously collected datasets.

Blinding No blinding is involved in this study, as it is based on the analysis of existing datasets without direct interaction with subjects. The analysis focuses on uncovering patterns within the data using statistical methods, independent of any experimental manipulation or treatment assignment.

Study design Our study employs a many-analyst, observational design to explore factor structures in psychedelic research scales within a newly collected dataset. This approach leverages diverse statistical analyses, without specific counterbalancing, to assess commonalities and distinctions across scales.

Randomization Randomization is directly not applicable to the design of our study, as it involves the analysis of a dataset that has already been collected by collaborators rather than the direct allocation of treatments or interventions to subjects. We will split the dataset across participants into a training and a test set. This splitting will be done randomly, ensuring that the two sets are independent of each other. The training set will be used to identify the factor structure of the scales, while the test set will be used to validate the model.

Sampling Plan	Our study is part of a many-analysts project and will analyze a newly collected dataset. Given the collaborative nature of this project, our analysis represents one of many, contributing to a broader understanding through the synthesis of findings across different analytical teams. At this stage, the exact number of samples in the dataset is not determined, as we do not yet have access to the data.
Existing data	**Registration prior to accessing the data**. As of the date of submission, the data exist, but have not been accessed by our team.
Explanation of existing data	Since our project centers around a newly collected dataset for a many-analyst approach, the concept of "existing data" doesn't directly apply as traditionally defined. However, to ensure the integrity and impartiality of our analysis, we have established protocols to prevent any one analyst or team from having advance access to the dataset or its summary statistics before the analysis begins. The dataset will be revealed to all participating analysts simultaneously, after the completion of data collection, to guarantee that all analyses are conducted without prior knowledge of the data's characteristics.
Data collection procedures	For detailed information on the data collection process, including participant recruitment, selection criteria, and survey methodology, please refer to the original study documentation. As this project involves a many-analyst approach to analyze the dataset, specific details on data collection are beyond the scope of our analysis plan. For comprehensive insights into the procedures and methodologies employed in gathering the data, we recommend consulting the primary source of the dataset.
Sample size	As this project employs a many-analyst approach to explore psychedelic research scales, the exact sample size to be analyzed has not been predetermined at this stage. Once data collection is complete, we will have a clearer understanding of the total number of units (e.g., individual survey responses) available for analysis.

Sample size rationale

Given the collaborative nature of our project and the diversity of statistical methods to be employed by various analysts, our primary concern is to collect as rich and varied a dataset as possible. The sample size, therefore, will be influenced by practical considerations such as the availability of participants and the resources available for data collection. The goal is to maximize the sample size within these constraints to enhance the reliability and validity of the analyses conducted by different analysts.

Stopping rule

A stopping rule does not apply to our project as we are not directly involved in the data collection process.

Variables

Manipulated variables

Not applicable to this observational study.

Measured variables

For Research Question 1 (common factor structure):

Measured Variables: The sum scores of the scales MEQ, CEQ, AWES, ESAT, EDI, SWLS, NADA_S, ASC11D, ASC11DShort, EISI, INOE, APEQ_S, LAP, and APEI. These sum scores are calculated based on responses to individual items within each scale, reflecting various dimensions of the psychedelic experience. For Research Question 2 (best predictor of well-being):

Outcome Variable: Well-being, operationalized through scale scores related to psychological well-being (potentially represented by SWLS sum scores or similar). Predictors: Sum scores of all analyzed scales, including but not limited to MEQ_sum, CEQ_sum, AWES_sum, ESAT_sum, EDI_sum, NADA_S_sum, ASC11D_sum, EISI_sum, INOE_sum, APEQ_S_sum, LAP_sum, and APEI_sum. For Research Question 3 (most important conclusion/finding):

Variables Involved: Factor scores, residuals, and other derived statistics from Confirmatory Factor Analysis (CFA), Hierarchical Model, and Bi-factor Model analyses. These include standardized residuals and model fit indices (e.g., RMSEA, CFI) to interpret the data's underlying structure and the relationships between scales.

Indices	Enter your response here.

Analysis Plan

Statistical models	Enter your response here.
Transformations	Enter your response here.
Inference criteria	
Data exclusion	Enter your response here.
Missing data	Enter your response here.
Exploratory analyses (optional)	Enter your response here.

Other

Other (Optional)	Enter your response here.

References