

Effectiveness of Mindfulness Training in Reducing Maladaptive Daydreaming and Rumination Among Students With Childhood Trauma

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the Study Design and Participants section, the statement “Thirty eligible participants were subsequently selected and randomly assigned to either the experimental group (n = 15) or the control group (n = 15)” should be supplemented with a precise description of the randomization procedure. Please report how the allocation sequence was generated, who generated it, whether allocation concealment was implemented, and at what stage participants were assigned. For example, it should be stated whether a computerized random-number generator, random-number table, sealed envelopes, or another procedure was used. Because the study is described as quasi-experimental despite the use of random allocation, the authors should also clarify why the design is classified as quasi-experimental rather than a randomized controlled trial.

The eligibility criteria presented in the Study Design and Participants section require additional conceptual and clinical justification. In particular, the manuscript excludes students with “chronic or specific medical conditions such as diabetes mellitus or multiple sclerosis,” but it is unclear why these conditions would necessarily interfere with participation in a mindfulness intervention or bias the study outcomes. The authors should explain the rationale for these exclusions and indicate

whether they were based on safety considerations, expected attendance difficulties, medication effects, or an attempt to create a more homogeneous sample. Unnecessarily restrictive medical exclusions can reduce external validity and should not be retained without a defensible methodological rationale.

The Intervention Protocol section states that the program consisted of “eight weekly sessions, each lasting approximately 150 minutes,” but the manuscript does not report participants’ mindfulness practice between sessions. Standard mindfulness-based programs generally involve substantial homework or daily formal and informal practice, which may constitute a meaningful component of treatment dosage. The authors should specify whether participants completed home meditation exercises, how frequently and for how long they were asked to practice, whether practice logs were collected, and whether adherence was monitored. If no formal homework was prescribed, this should also be explicitly stated because it affects comparison with established mindfulness-based cognitive therapy protocols.

The control condition requires stronger methodological discussion. The statement “Participants in the control group did not receive any psychological intervention during the experimental period” indicates a passive no-treatment control, meaning that the study cannot distinguish the specific effects of mindfulness from nonspecific effects such as group interaction, therapist attention, expectation of improvement, structured activity, and repeated contact with researchers. The authors should explicitly acknowledge this limitation in the Methods and Discussion and avoid attributing the entirety of the observed difference specifically to mindfulness mechanisms. An active control condition would have allowed stronger causal conclusions regarding the specific therapeutic components of the intervention.

The Data Analysis section states that “univariate analysis of covariance (ANCOVA) was conducted separately for each dependent variable,” but the manuscript does not report all assumptions specifically required for ANCOVA. Normality and homogeneity of error variances are discussed, but the authors should additionally evaluate and report linearity between the covariate and dependent variable, homogeneity of regression slopes, the reliability of the covariate, and the absence of influential outliers. In particular, the group $\times$ pretest interaction should be tested to demonstrate homogeneity of regression slopes. Reporting these assumptions is essential because violation of the homogeneous-slopes assumption can invalidate adjusted group comparisons.

In the Findings section, the normality assessment relies on Kolmogorov–Smirnov tests for groups of only 15 participants. Given the very small group sample sizes, the Shapiro–Wilk test is generally more appropriate and more sensitive for evaluating departures from normality in small samples. The authors should either repeat the normality analyses using Shapiro–Wilk tests or provide a methodological justification for their use of Kolmogorov–Smirnov tests. In addition, graphical diagnostics such as Q–Q plots and inspection of standardized residuals would provide more meaningful evidence regarding distributional assumptions than significance testing alone.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

The manuscript should provide substantially more information concerning ethical approval. Although the Methods section states that authorization was obtained from university authorities and that participants provided informed consent, no institutional ethics committee, approval number, approval date, or relevant ethical standard is reported. The authors should include the name of the approving institutional review board or ethics committee, the ethical approval code, and a statement confirming adherence to relevant principles for research involving human participants. Given that the population includes individuals with histories of childhood trauma and that mindfulness exercises may evoke distressing memories or emotions, the manuscript should also specify procedures for managing psychological distress, adverse reactions, or requests for additional clinical support.

In the Data Collection Tools section, the paragraph describing the Maladaptive Daydreaming Scale states that “The version used in the present study consisted of 14 items assessing three dimensions of maladaptive daydreaming: interference with social activities, distress, and interference with physical activities.” This description appears to require reconciliation with the cited

psychometric literature, particularly because different versions of the Maladaptive Daydreaming Scale have been published, including the widely used 16-item MDS-16. The authors should clearly identify the exact version administered, its original source, adaptation history, scoring system, possible total score range, and validation evidence for the Iranian population. If an adapted 14-item form was used, the manuscript should explain how and why this version differs from the original measure.

The psychometric reporting for the Maladaptive Daydreaming Scale contains potentially inconsistent numerical information inherited from the source text. The Methods section currently refers generally to “acceptable-to-high” reliability for the subscales rather than reporting the exact coefficients because the original Persian text contains apparently malformed values. This issue should be resolved from the original validation study rather than omitted or approximated. The authors should verify and report the exact Cronbach’s alpha coefficients for the total scale and each subscale and should ensure that all coefficients correspond to the correct dimensions. Accurate reporting of psychometric indices is especially important because maladaptive daydreaming remains a relatively emerging construct and measurement precision directly affects the credibility of the conclusions.

In the paragraph describing the Ruminative Responses Scale, the statement that the instrument comprises “dimensions related to distraction, reflection, and brooding” should be carefully verified against the exact version administered. The factor structure of the Response Styles Questionnaire and its rumination-related components has varied across studies, and the commonly used 22-item Ruminative Responses Scale is frequently conceptualized differently from descriptions incorporating a “distraction” dimension. The authors should confirm the factor structure of the specific Persian version used, distinguish between the original Response Styles Questionnaire and the Ruminative Responses Scale, and report whether analyses in the present study were based on the total score only or on subscale scores.

The Intervention Protocol section provides useful session-level content, but important implementation details remain absent. The manuscript should identify who delivered the mindfulness intervention, including the facilitator’s academic or clinical qualifications, prior mindfulness training, therapeutic experience, and familiarity with the Segal et al. protocol. The authors should also report whether one or multiple facilitators conducted the sessions, whether treatment fidelity was monitored, whether a treatment manual or checklist was used, and whether sessions were supervised or independently evaluated. Without information on facilitator competence and fidelity, it is difficult to determine whether the observed effects can legitimately be attributed to a standardized mindfulness intervention.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.