






The Effectiveness of Mindfulness-Based Cognitive Therapy on Distress Tolerance and Perceived Stress in Women with Social Anxiety Disorder

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the Introduction section, the sentence “Women with social anxiety disorder may be particularly vulnerable to heightened perceived stress due to sociocultural expectations, interpersonal sensitivity, emotional suppression, and greater susceptibility to internalizing symptoms” requires stronger theoretical and empirical justification. The manuscript would benefit from integrating gender-sensitive theoretical frameworks or epidemiological evidence explaining why women specifically were selected as the target population. Currently, the rationale remains descriptive rather than theoretically grounded.

The literature review is comprehensive; however, several cited references are preprints or non-peer-reviewed sources, including “Holas & Wardęszkiewicz (2025)” and “Khataei et al. (2023).” The authors should critically evaluate the methodological rigor of these studies and discuss the limitations associated with relying heavily on unpublished or preprint evidence. Including a clearer distinction between peer-reviewed evidence and preliminary findings would improve scientific credibility.

The manuscript repeatedly claims that MBCT improves “distress tolerance,” “emotional flexibility,” and “self-compassion,” yet no mediational or mechanistic variables were actually measured in the present study. For example, the sentence “These

mechanisms are supported by research indicating that mindfulness-based interventions improve resilience, self-compassion, and emotional regulation capacities” extends beyond the empirical scope of the data. The discussion should distinguish between directly observed outcomes and theoretically inferred mechanisms.

The participant recruitment procedure lacks sufficient detail. The manuscript states that participants were selected “through convenience sampling” from women diagnosed with social anxiety disorder in Tehran, but it does not specify the recruitment setting (e.g., clinics, hospitals, counseling centers, advertisements). The authors should clarify the diagnostic pathway, referral process, and inclusion/exclusion criteria to improve reproducibility and external validity.

The diagnostic procedure for social anxiety disorder requires substantially greater methodological precision. The manuscript merely mentions “DSM-5 criteria,” but it does not specify whether diagnoses were established through structured clinical interviews, psychiatrist evaluations, or screening instruments. The absence of information regarding diagnostic reliability raises concerns about sample validity. The authors should specify the diagnostic instrument, clinician qualifications, and inter-rater reliability procedures if applicable.

The description of the Social Anxiety Questionnaire contains a scoring inconsistency. The manuscript states that the scale uses a five-point response format ranging from 1 to 5, but then states that “questionnaire items are scored from 0 to 4.” Furthermore, the total score range is reported as “17 to 68,” which mathematically conflicts with a 0–4 scoring structure across 17 items. The scoring procedure must be corrected for internal consistency and psychometric accuracy.

The manuscript does not address participant adherence or attrition. It is unclear whether all participants completed the 8-week intervention and posttest assessment. The authors should explicitly report dropout rates, attendance frequency, handling of missing data, and whether intention-to-treat analyses were performed.

The Discussion section occasionally overgeneralizes findings beyond the actual study population. For example, the conclusion that “mindfulness-based interventions possess broad transdiagnostic utility” extends beyond the present design, which only included women with social anxiety disorder. The authors should temper broad clinical claims and maintain tighter alignment with the study’s empirical boundaries.

The manuscript would benefit from a stronger theoretical integration of MBCT mechanisms specifically related to social anxiety disorder. While mindfulness principles are described extensively, there is limited engagement with core cognitive-behavioral models of social anxiety such as Clark and Wells’ model or Rapee and Heimberg’s framework. Incorporating disorder-specific cognitive theory would strengthen conceptual coherence.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

The reliability reporting for the Distress Tolerance Scale is problematic. The manuscript reports “high internal consistency reliability for the total scale (0.71),” whereas a Cronbach’s alpha of 0.71 is generally considered acceptable or moderate rather than high. The authors should avoid overstating psychometric adequacy and provide reliability coefficients obtained specifically from the present sample rather than relying predominantly on prior studies.

The intervention section provides a broad narrative description of MBCT sessions but lacks procedural standardization. For example, the sentence “Subsequent sessions included mindfulness breathing exercises, body scan techniques, mindful observation of thoughts and emotions...” does not indicate session-by-session content, therapeutic manual adherence, therapist training, or fidelity assessment. Including a structured protocol table or session outline would significantly improve reproducibility.

No information is provided regarding therapist qualifications or competency in delivering mindfulness-based cognitive therapy. Since therapist expertise can substantially influence treatment outcomes, the manuscript should report the therapist’s educational background, clinical experience, MBCT certification status, and supervision procedures.

The sample size of 30 participants appears underpowered for robust multivariate analysis, especially considering the use of MANCOVA with multiple dependent variables. The manuscript should include an a priori power analysis (e.g., G*Power) to justify sample adequacy and clarify the expected effect size assumptions used in determining recruitment targets.

The assumptions underlying MANCOVA are incompletely reported. While the authors mention the Shapiro–Wilk and Levene’s tests, there is no discussion of additional critical assumptions such as homogeneity of covariance matrices (Box’s M test), absence of multicollinearity, linearity, or equality of regression slopes. Omitting these assumptions weakens confidence in the appropriateness of the statistical model.

In Table 2, the reported p-values are shown as “0.01” instead of the conventional statistical notation “ $p < .01$ ” or exact p-values. Reporting exact p-values where possible would improve statistical transparency. Additionally, degrees of freedom for the F-statistics are missing, which limits interpretability and APA compliance.

The reported effect sizes are extremely large ($\eta^2 = 0.622$ and $\eta^2 = 0.614$), particularly given the relatively small sample size and brief intervention duration. The authors should discuss the possibility of effect size inflation due to small-sample bias and provide confidence intervals for effect estimates to improve interpretive rigor.

The Results section does not report adjusted posttest means after controlling for pretest scores, despite the use of covariance analysis. Since MANCOVA statistically adjusts outcome scores, reporting adjusted means and standard errors would provide a more accurate representation of intervention effects.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.