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The Effectiveness of Cognitive Behavioral Therapy on Rumination and Psychological Distress Among Individuals Attending Counseling Centers

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E d i t o r	R e v i e w e r s
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1. Round 1

1.1. Reviewer 1

Reviewer:

The participant recruitment procedure is insufficiently described in the paragraph beginning “From this population, 30 eligible individuals were recruited using convenience sampling.” The authors should identify how prospective participants were approached, whether recruitment occurred at one or multiple counseling centers, who conducted screening, how many individuals were assessed for eligibility, how many were excluded, and the reasons for exclusion or refusal. A participant flow description would considerably improve transparency. Even if a CONSORT-style flow diagram is not required by the target journal, the manuscript should report the numbers screened, eligible, randomized/allocated, completing treatment, completing posttest assessment, and included in the final analysis.

The manuscript states that “the control group received no CBT intervention during the study period and continued under the routine conditions of the counseling centers.” This control condition needs precise definition. It is unclear whether “routine conditions” included counseling, pharmacotherapy, supportive sessions, psychoeducation, or no intervention at all. If control participants received any psychological or medical treatment, such exposure could influence rumination and psychological distress and should be documented. If the group was a wait-list control, it should be explicitly labeled as such. The authors should also indicate whether access to other psychological services was monitored during the intervention period.

The manuscript needs a dedicated statement on ethical procedures. Although the Methods paragraph notes that “Participation in the study was voluntary” and confidentiality was maintained, this is not sufficient for publication. The authors should provide the institutional ethics committee name, ethics approval code, date of approval where required, and the procedure used to obtain written informed consent. If the study was prospectively registered as a clinical trial, the registration identifier should also be reported. If it was not registered, the authors should state this where appropriate and discuss whether trial registration was required by the institutional or journal standards.

The Data Analysis section and the Findings section are currently inconsistent. The Methods state that “analysis of covariance procedures were used, with posttest scores as the dependent variables, group membership as the independent variable, and corresponding pretest scores entered as covariates,” whereas the reported inferential results are clearly structured as repeated-measures analyses with effects for “Time” and “Time $\times$ Group.” The authors must select and report the analysis that was actually conducted. If repeated-measures ANOVA was used, the Methods should be rewritten accordingly. If ANCOVA was intended, the results should instead report adjusted posttest group effects controlling for baseline values. Reporting one statistical strategy in Methods and another in Results is a major methodological problem.

The degrees of freedom reported for the interaction effects in Table 2 appear inconsistent with the stated 2×2 design. Specifically, the manuscript reports “Time $\times$ Group, $df = 2$ ” for both rumination and psychological distress. With two groups and two measurement occasions, the numerator degrees of freedom for the time $\times$ group interaction would ordinarily be 1, assuming a conventional repeated-measures ANOVA. The authors should recheck the statistical output and verify all degrees of freedom, sums of squares, mean squares, and F statistics directly against the software output. This concern is not merely editorial; incorrect degrees of freedom may indicate either transcription errors or a mismatch between the described model and the model actually analyzed.

The reported Shapiro–Wilk statistics require careful verification. The manuscript states, for example, “ $W = .652$, $df = 15$, $p = .486$ ” for rumination in the experimental group and similarly low W values with nonsignificant p values for the other distributions. A Shapiro–Wilk statistic as low as approximately .62–.65 with $n = 15$ would generally suggest substantial departure from normality and would not ordinarily be paired with p values near .50. The authors should verify that the W statistics and significance values were transcribed correctly and were not inadvertently taken from different columns or tests. Normality should ideally also be evaluated using Q–Q plots and inspection of residuals because assumption testing for ANOVA/ANCOVA concerns model residuals rather than only raw group scores.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

The Data Collection Tools section describes the Ruminative Responses Scale as originating from the Response Styles Questionnaire, but the sentence “Rumination was assessed using the Ruminative Responses Scale (RRS), which was originally developed within the Response Styles Questionnaire by Nolen-Hoeksema and Morrow” should be accompanied by the original psychometric citation and the citation for the validated Iranian version used in this study. More importantly, the manuscript must specify which exact language version was administered, whether the 22-item original RRS or a later reformulated version was used, and whether any translation or adaptation procedures were undertaken. Reporting reliability coefficients from

previous studies is insufficient; Cronbach's alpha or preferably omega should also be calculated and reported for the present sample.

The description of the RRS requires greater psychometric precision. The manuscript states that the instrument "encompasses dimensions commonly characterized as brooding and reflection," but the 22-item RRS historically contains items that overlap with depressive symptom content, and later factor-analytic work often uses shorter brooding and reflection subscales. The authors should clarify whether analyses were based on the full 22-item total score or on specific subscales. Because the outcome presented in the Findings section is a single "rumination" score, the manuscript should explicitly state that the total score was the prespecified primary measure and explain why use of the total score was psychometrically appropriate.

The description of the Kessler Psychological Distress Scale (K10) requires verification because the reported scoring differs from the commonly used K10 scoring convention. The manuscript states that responses range "from 0 (none of the time) to 4 (all of the time)" and that total scores range from 0 to 40. Standard K10 versions frequently score each item from 1 to 5, producing total scores from 10 to 50. If the authors used a validated Iranian 0–4 scoring adaptation, the specific source validating that format must be cited and the interpretation of scores justified. Otherwise, the scoring procedure should be corrected to match the administered instrument. This issue is important because scoring directly affects descriptive values, comparability with previous studies, and potential clinical interpretation.

For the K10, the manuscript reports that "Iranian samples have reported a Cronbach's alpha coefficient of .83 and indices of internal validity exceeding .70." The phrase "internal validity" is psychometrically ambiguous and should be replaced by the exact property assessed in the source study, such as internal consistency, convergent validity, construct validity, or item-total correlations. The authors should also report reliability for the K10 in the present sample rather than relying solely on historical estimates. If the questionnaire was used as an outcome variable in a small intervention study, evidence of acceptable internal consistency in the analyzed sample is especially important.

The Intervention Protocol paragraph remains too general for replication. The statement that "The experimental group received a cognitive behavioral therapy intervention consisting of eight 120-minute sessions" should be followed by a session-by-session description of therapeutic content, even if provided narratively rather than in a table. At minimum, the authors should specify the principal objective of each session, major CBT techniques used, homework assignments, sequencing of cognitive restructuring and behavioral activation, and the procedures used for relapse prevention. The current protocol reads as a generic overview of CBT rather than a reproducible treatment manual tailored specifically to rumination and psychological distress.

Important treatment-delivery characteristics are absent from the intervention paragraph. The authors should report whether CBT was delivered individually or in groups, the professional qualifications and CBT training of the therapist(s), the number of therapists involved, treatment setting, session frequency, and whether supervision was provided. The manuscript should also describe treatment fidelity procedures, such as therapist checklists, session recording, independent adherence ratings, or supervision against a manual. Without fidelity information, it cannot be established whether the intervention was consistently implemented according to the intended CBT protocol.

Response: Revised and uploaded the manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.