

# The Effectiveness of Schema Therapy and Mindfulness on Psychological Distress in Patients with Rheumatoid Arthritis

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## 1. Round 1

### 1.1. Reviewer 1

Reviewer:

In the abstract methods, the sentence “A total of 45 patients with rheumatoid arthritis who met the inclusion criteria were selected through purposive sampling and were randomly assigned to the study groups” requires further methodological clarification. The manuscript should specify the exact number of groups, the number of participants per group, and the allocation method. For example, it should clarify whether randomization was performed using a random number table, sealed envelopes, computerized allocation, or another method.

In the Methods section, the paragraph beginning “The statistical population consisted of all patients aged 25 to 55 years with rheumatoid arthritis...” should include a clear diagnostic criterion for rheumatoid arthritis. The authors should specify whether diagnosis was confirmed by a rheumatologist, medical records, ACR/EULAR criteria, or self-report. Without this information, the clinical validity of the sample is uncertain.

The mindfulness protocol paragraph mentions “psychological distress, emotional dysregulation, and illness perception” several times, but only psychological distress is analyzed as an outcome. The authors should either include validated measures

for emotional dysregulation and illness perception or remove wording that may imply these constructs were empirically evaluated. This distinction is important for avoiding outcome-reporting ambiguity.

In the Data Analysis section, the manuscript states that “repeated-measures analysis of variance, multivariate analysis of covariance, and one-way analyses of covariance within the MANCOVA framework” were used. This needs substantial clarification. Since there is one dependent variable measured across three time points and three groups, the most appropriate analysis would generally be mixed repeated-measures ANOVA or ANCOVA with baseline adjustment. The authors should clearly specify the exact statistical model, within-subject factor, between-subject factor, covariates, and interaction terms.

Response: Revised and uploaded the manuscript.

## 1.2. Reviewer 2

Reviewer:

In the same Methods paragraph, the manuscript states that participants were recruited from “Imam Reza Hospital and rheumatology clinics in Mashhad in 2025,” but it does not report the sampling period. The authors should provide the exact recruitment timeframe, such as month-to-month dates, because this is necessary for reproducibility and for understanding whether seasonal or service-related factors may have influenced recruitment.

The inclusion and exclusion criteria are insufficiently reported. The Methods section should specify criteria such as disease duration, medication stability, absence of severe psychiatric disorders, current psychotherapy, cognitive impairment, other autoimmune disorders, and acute flare status. Since psychological distress may be strongly affected by disease severity, comorbid depression, medication changes, and pain intensity, these criteria are essential for interpreting intervention effects.

The sentence “The psychological distress questionnaire was administered to all participants at the pretest, posttest, and two-month follow-up stages” should be revised to specify the timing of posttest administration. It is currently unclear whether posttest was conducted immediately after the final intervention session or after a delay. This timing is important because the schema therapy protocol had 10 sessions and the mindfulness protocol had eight sessions, creating possible differences in intervention duration.

The manuscript reports that “schema therapy was implemented for the first experimental group, mindfulness-based intervention was implemented for the second experimental group, and the control group received no psychological intervention.” The authors should clarify whether all participants continued their usual medical treatment during the study period and whether medication changes were monitored. In rheumatoid arthritis research, pharmacological treatment can substantially affect pain, mood, and psychological distress.

The ethics statement in the Methods section indicates that “after completion of the research process, the more effective intervention was also provided to the control group.” This sentence is ethically appropriate but methodologically ambiguous. Because the findings state that no significant difference was observed between schema therapy and mindfulness, the authors should clarify which intervention was later provided to the control group and on what basis it was considered “more effective.”

In the Data Collection Tools paragraph, the description of the Kessler Psychological Distress Scale states that the total score ranges from 0 to 40. However, the descriptive statistics table reports pretest means such as 32.56, 35.59, and 36.64, which are close to the upper limit of the scale and indicate very high distress. The authors should discuss whether this reflects severe psychological distress in the sample and whether any clinical cutoff scores were used to interpret severity.

There is a major inconsistency between the original Persian table and the English Table 1 regarding the scale scores. The Persian table appears to report values such as “56.32” and “44.29,” whereas the English version presents “32.56” and “29.44.” The authors must verify the correct decimal placement and score values because scores above 40 would be impossible for the Kessler-10 if scored from 0 to 4 across 10 items. This issue directly affects the credibility of the results.

The intervention protocols are described in considerable detail, but the manuscript should report session duration, frequency, total intervention length, therapist qualifications, and whether sessions were group-based or individual. For example, the

schema therapy protocol contains 10 sessions, whereas the mindfulness protocol contains eight sessions; without information on session length and total contact hours, the comparative effectiveness claim is difficult to interpret.

The schema therapy protocol paragraph states that “patients’ problems, including psychological distress, emotional dysregulation, and illness perception, were formulated within the schema therapy framework.” However, the study measured only psychological distress. If emotional dysregulation and illness perception were targeted clinically but not measured, the authors should avoid presenting them as outcome domains or should explain that they were therapeutic targets rather than study variables.

Response: Revised and uploaded the manuscript.

## 2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.