

Comparing the Effectiveness of Mindfulness-Based Cognitive Therapy and Positive Psychology Interventions on Self-Acceptance in Women with Chronic Tension-Type Headache

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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:

In the introductory paragraph beginning with “Chronic tension-type headache is among the most prevalent and persistent primary headache conditions,” the clinical description of chronic tension-type headache is presented without reference to formal diagnostic criteria. The manuscript would benefit from explicitly defining chronic tension-type headache according to an internationally recognized diagnostic framework, preferably the International Classification of Headache Disorders. The authors should state the required headache frequency, duration, typical pain characteristics, and relevant exclusionary features so that readers can determine whether the study population corresponds to a standardized clinical phenotype rather than a broadly defined group with recurrent tension-type headache.

In the introduction, the sentence “Within this framework, self-acceptance assumes particular importance because it reflects the capacity to acknowledge oneself with relative openness and psychological balance despite limitations” introduces self-acceptance as the central outcome, but the construct requires more precise conceptual differentiation from self-concept, self-esteem, self-compassion, psychological acceptance, and pain acceptance. These constructs are theoretically related but are not

interchangeable. The authors should provide an explicit operational definition of self-acceptance and explain why it was selected as the primary outcome in chronic tension-type headache rather than a more commonly studied construct such as pain acceptance or psychological flexibility.

The exclusion criterion stating that participants were excluded for “receiving other psychotherapeutic interventions during the three months preceding the study” appears temporally inconsistent with the earlier inclusion criterion of “no concurrent psychological treatment.” The authors should clarify whether previous treatment within three months, concurrent treatment during the trial, or both constituted exclusion criteria. In addition, concomitant pharmacological treatment for headache is not adequately addressed. The manuscript should report whether analgesics, preventive medications, antidepressants, muscle relaxants, or other relevant medications were permitted, whether doses had to remain stable, and whether medication use differed across groups.

The section describing the Beck Self-Concept Test contains a major measurement issue. The manuscript states that “Self-acceptance was evaluated using the Beck Self-Concept Test” and subsequently interprets the resulting score as a direct measure of self-acceptance. The authors must provide psychometric and conceptual justification for this operationalization because self-concept and self-acceptance are related but distinct constructs. The exact version of the instrument, original construct, scoring direction, dimensional structure, and evidence validating its use specifically as a self-acceptance measure should be documented. If the instrument principally measures self-concept, the manuscript may need to rename the outcome accordingly or justify the transformation of its interpretation.

In the measurement paragraph, the statement that “the questionnaire consisted of 26 self-report items scored on a five-point Likert scale” should be carefully verified against the original Beck instrument and the specific validated version used in the study. The authors should ensure that the number of items, response format, scoring range, reverse-scored items, and interpretation correspond exactly to the cited instrument rather than to a modified or locally adapted version. If an Iranian adaptation was used, the manuscript should identify that version clearly, explain whether permission or cultural adaptation procedures were required, and provide an appropriate source for the specific scoring system used.

The paragraph reporting psychometric properties states that “Content validity was assessed using the content validity ratio (CVR) and content validity index (CVI), which were reported as 0.79 and 0.85.” This procedure needs clarification because CVR and CVI are usually used during instrument development or cultural adaptation rather than routinely recalculated for an established questionnaire. The authors should report the number and expertise of panel members, the rating procedure, the criteria used to calculate CVR and CVI, and the threshold applied for adequacy. If these indices came from a previous validation study rather than the current sample, this should be stated explicitly.

The intervention protocol requires stronger reporting of treatment fidelity. In the MBCT section, the manuscript describes eight sessions and includes progressive muscle relaxation as a substantial component, while attributing the program to Segal et al. (2013). The authors should explain whether this was a standard MBCT protocol or a modified program adapted for chronic headache. Several listed components, particularly extensive progressive muscle relaxation, are not typically central elements of canonical MBCT. The authors should distinguish standard MBCT components from study-specific adaptations, justify modifications, and report whether a treatment manual, session checklist, supervision, audio recordings, or independent fidelity ratings were used.

Similarly, in the PPI protocol, the sentence “The positive psychology intervention was developed based on the positive psychotherapy framework described by Rashid and Seligman (2013)” should be followed by a clearer description of adaptation. The manuscript should state whether the eight-session format is an established protocol or a shortened version of positive psychotherapy, which exercises were retained or omitted, and how content was tailored to women with chronic tension-type headache. Treatment dose equivalence between PPI and MBCT should also be discussed because comparative effectiveness can be influenced by therapist contact, homework intensity, participant engagement, and intervention credibility rather than therapeutic orientation alone.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

The introduction repeatedly emphasizes identity disturbance in chronic pain, including the sentence “chronic pain can become deeply intertwined with identity,” but the logical transition from identity disturbance to the specific measurement of self-acceptance remains insufficiently developed. The authors should provide a clearer conceptual model showing how chronic headache may influence self-evaluation and how MBCT and positive psychology interventions are expected to modify these processes. A concise theoretical pathway linking chronic headache, pain-related identity disruption, negative self-appraisal, and self-acceptance would substantially strengthen the rationale and avoid relying on conceptual proximity alone.

In the paragraph discussing MBCT, the statement “MBCT may improve self-acceptance by helping individuals observe pain-related thoughts and self-judgments without automatically treating them as accurate descriptions of the self” is theoretically plausible, but the manuscript should distinguish mechanisms directly established in prior research from mechanisms inferred by the authors. Decentering, cognitive defusion-like processes, nonjudgment, acceptance, and reduced cognitive reactivity should not be presented as demonstrated mediators of self-acceptance unless mediation evidence is available. The authors should therefore moderate causal language and clearly identify these processes as proposed mechanisms unless they were measured and statistically tested in the present study.

In the methods section, the sentence “Based on power calculations guided by Cohen’s recommendations, an assumed effect size of 0.50 and statistical power of 0.85 indicated a minimum estimated sample of 15 participants per group” is insufficient for reproducibility. The authors should report the exact statistical test used for the power analysis, the effect-size metric employed, alpha level, number of groups, number of repeated measurements, assumed correlation among repeated measures, nonsphericity correction if applicable, and the software used for calculation. An “effect size of 0.50” is ambiguous because it could represent Cohen’s *f*, *d*, or another metric, and these values imply substantially different expected effects.

In the methods paragraph stating that participants “were allocated to three groups of equal size” and that “group allocation was reported as random,” the allocation procedure must be described precisely. A quasi-experimental study and random assignment are not necessarily incompatible, but if individual random allocation was actually performed, the design may more appropriately be characterized as a randomized controlled trial unless other methodological features justify the quasi-experimental designation. The authors should specify the random-sequence generation method, who generated the sequence, whether allocation concealment was used, and who enrolled and assigned participants. If assignment was nonrandom, the manuscript should remove the term “random” and explain the actual allocation mechanism.

In the participant eligibility paragraph, the criterion “a neurologist-confirmed diagnosis of chronic tension-type headache” requires substantially greater diagnostic detail. The authors should indicate whether diagnosis was based on a structured neurological examination, medical records, headache diaries, or formal diagnostic criteria. They should also explain how migraine, medication-overuse headache, secondary headache disorders, and other primary headache syndromes were excluded. Because diagnostic misclassification could materially influence treatment response, the diagnostic process should be sufficiently detailed to permit replication.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.