

Comparison of the Effectiveness of Contextual Schema Therapy and Mode-Based Schema Therapy on Emotion Regulation in Individuals with Migraine

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the introduction paragraph discussing migraine as a biopsychosocial condition, the manuscript should more clearly differentiate between neurological mechanisms of migraine and psychological mechanisms influencing symptom burden. The statement that emotional tension, chronic stress, and interpersonal conflict may intensify migraine-related distress is clinically plausible, but the paragraph would be stronger if it explicitly explained how emotion regulation difficulties may influence pain perception, attack-related disability, medication use, avoidance behavior, and quality of life.

In the introduction paragraph beginning "Emotion regulation refers to the processes through which individuals monitor, evaluate, modify, express, and respond to emotional experiences," the manuscript defines cognitive reappraisal and expressive suppression appropriately, but it does not sufficiently connect these constructs to the selected measurement tool. The authors should state that these two dimensions correspond directly to the subscales of the Emotion Regulation Questionnaire, thereby strengthening the alignment among theoretical framework, measurement strategy, and statistical analysis.

In the introduction paragraph beginning “Schema theory provides a useful framework for explaining why some individuals experience persistent difficulties in emotion regulation,” the link between early maladaptive schemas and migraine needs more specific elaboration. The manuscript should explain which schemas are expected to be particularly relevant in migraine patients, such as vulnerability to harm, emotional deprivation, defectiveness/shame, dependence/incompetence, or insufficient self-control, and how these schemas may affect coping with pain episodes.

In the introduction paragraph discussing schema modes, the sentence “Schema modes refer to momentary emotional, cognitive, and behavioral states that become activated under specific internal or external conditions” is useful, but the manuscript should explain why a mode-based intervention may be more clinically relevant than standard schema therapy for recurrent pain conditions. The authors should clarify how vulnerable child, punitive critic, detached protector, and healthy adult modes may appear during migraine attacks or during anticipation of future attacks.

In the inclusion criteria paragraph, the criterion “absence of severe clinical psychological disorders based on a structured diagnostic interview” is insufficiently described. The authors should name the structured interview used, identify who administered it, report whether interviewers were trained, and specify which disorders led to exclusion. This is important because anxiety, depression, and somatic symptom burden are common in migraine and may substantially influence emotion regulation and treatment response.

In the intervention paragraph stating that “both protocols were implemented by one specialist therapist with at least 5 years of clinical experience,” the manuscript should address therapist allegiance and fidelity. Because the same therapist delivered both interventions, the authors should explain how adherence to each protocol was monitored, whether sessions were supervised, whether a treatment fidelity checklist was used, and whether therapist expectations could have influenced outcomes.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

In the introduction paragraph comparing mode-based and contextual formulations, the manuscript introduces both interventions but does not sufficiently distinguish their mechanisms. The authors should add a sharper contrast between the two approaches, explaining that mode-based schema therapy primarily targets internal state shifts and mode activation, whereas contextual schema therapy emphasizes the interaction between schemas, environmental triggers, interpersonal contexts, and behavioral responses.

In the final paragraph of the introduction, the sentence “Therefore, the aim of the present study was to compare the effectiveness of mode-based schema therapy and contextual schema therapy on emotion regulation in individuals with migraine” is appropriate, but the hypotheses are not explicitly stated. The authors should add clear hypotheses, such as whether both interventions are expected to improve cognitive reappraisal and reduce expressive suppression compared with the control group, and whether a significant difference between the two interventions is expected or exploratory.

In the Methods paragraph beginning “The present study was conducted using a quasi-experimental design with a pretest–posttest control group design and a follow-up phase,” the term “quasi-experimental” should be reconciled with the later statement that participants were randomly assigned to groups. If random assignment was actually performed after purposive sampling, the authors should describe the study as a randomized controlled quasi-experimental design or clarify the exact randomization procedure, including how allocation concealment was handled.

In the Methods paragraph beginning “Participants were selected through purposive sampling based on their scores on the Emotion Regulation Questionnaire,” the sampling procedure needs greater precision. The manuscript states that individuals scoring at least one standard deviation above the mean were selected because this indicated difficulty in emotion regulation, but the Emotion Regulation Questionnaire includes both adaptive and maladaptive subscales. The authors should clarify whether eligibility was based on total score, low cognitive reappraisal, high expressive suppression, or a combined index, because a simple total score may not validly represent “difficulty” in emotion regulation.

In the Methods paragraph stating that “the diagnosis of migraine with a psychological origin was evaluated based on the International Classification of Headache Disorders, third edition,” the authors should provide more diagnostic detail. The International Classification of Headache Disorders identifies migraine subtypes but does not usually classify migraine as being of “psychological origin.” The manuscript should specify how psychological factors were assessed, whether comorbid psychiatric symptoms were evaluated, and how the neurologist differentiated migraine with psychological triggers from other primary or secondary headache disorders.

Response: Revised and uploaded the manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.