

The Effectiveness of Cognitive Behavioral Therapy (CBT) in Reducing Addiction Severity and Craving and Improving Emotional Regulation in Individuals with Substance Use Disorder: A Quasi-Experimental Study

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the introduction, the first paragraph states that “substance use disorder cannot be adequately understood or treated solely as a pattern of physiological dependence.” This is a strong and appropriate conceptual claim, but the manuscript should more explicitly connect this statement to the three selected outcomes: addiction severity, craving, and emotional regulation. The introduction would be strengthened if the authors added a clearer conceptual model explaining how CBT is expected to reduce addiction severity directly through cognitive-behavioral skill acquisition and indirectly through craving reduction and improved emotion regulation.

In the paragraph on the Addiction Severity Index, the authors write that the ASI “examines different domains related to addiction, including substance use pattern, medical status, employment and financial condition, legal problems, family and social relationships, and psychiatric status.” The manuscript should clarify whether the full ASI interview was used or whether a shortened/self-report adaptation was administered. If the ASI was adapted into a scale score, the scoring procedure should be

described carefully because ASI composite scores are domain-specific and should not be treated as a single global score without justification.

In the paragraph on the craving measure, the manuscript refers to “The Cocaine Craving Questionnaire or Substance Craving Questionnaire (CCQ).” This is problematic because the Cocaine Craving Questionnaire is substance-specific, while the study population is described broadly as individuals with substance use disorder. The authors must clarify the exact instrument used, its target substance, whether it was adapted for multiple substances, and whether such adaptation has been validated. Otherwise, the validity of the craving outcome is uncertain.

In the paragraph on the DERS, the sentence “Higher scores on this scale indicate greater difficulty in emotional regulation, whereas lower scores after intervention reflect improvement in emotional regulation capacity” is useful and should be preserved, but the same interpretation must be consistently reflected in the findings and discussion. In several places, the manuscript says “improving emotional regulation” without specifying that this is operationalized as reduced DERS scores. To avoid conceptual confusion, please use “reduction in emotional regulation difficulties” when reporting statistical findings and “improvement in emotional regulation capacity” only when interpreting the clinical meaning.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

In the introduction, the paragraph beginning “One of the central constructs in addiction research is craving” provides a useful conceptualization, but the manuscript should define whether craving is treated as a state variable, trait-like tendency, relapse predictor, or treatment outcome. Since the study uses a pretest–posttest design, the authors should clarify that craving is measured as a modifiable treatment outcome. This would help align the theoretical discussion with the measurement and statistical design of the study.

In the introduction, the sentence “Emotion regulation is another key construct in understanding the development, maintenance, and treatment of substance use disorder” is scientifically relevant, but the article should clarify whether the study evaluates “improvement in emotional regulation” or “reduction in emotional regulation difficulties.” The findings table reports the Difficulties in Emotion Regulation Scale, where lower scores represent better regulation. Therefore, the wording throughout the manuscript should be consistent and should avoid implying that a higher score reflects better emotional regulation.

In the introduction, the authors state that “CBT may reduce craving by modifying the cognitive appraisal of urges.” This is an important mechanistic statement, but the manuscript does not test mediation or mechanism. I recommend softening causal language in the discussion unless a mediation analysis is added. The authors may state that the findings are “consistent with” this mechanism rather than claiming that the intervention reduced craving specifically through cognitive appraisal changes.

In the methods section, the sentence “The present study was conducted using a quasi-experimental design with a pretest–posttest structure and a control group” should be expanded to include the exact design notation and timing of assessments. The authors should specify the time interval between pretest and posttest, whether assessments were conducted immediately after the tenth session, and whether both groups completed questionnaires under comparable conditions. These details are necessary for evaluating internal validity and temporal comparability between groups.

In the methods section, the sentence “The statistical population consisted of individuals with substance use disorder who referred to addiction treatment centers in Tehran during 2025” should include more detailed sampling information. Please identify the number and type of centers, recruitment procedure, inclusion screening, refusal rate, attrition rate, and whether participants were receiving medication-assisted treatment or other routine services. These factors are important because treatment-center characteristics and concurrent care may influence addiction severity, craving, and emotional regulation outcomes.

In the participants paragraph, the inclusion criteria are described as “diagnosis of substance use disorder, willingness to participate in the study, ability to attend therapy sessions regularly, and completion of the research questionnaires.” These

criteria are too general for a clinical intervention study. I recommend adding minimum age, literacy level, substance-use history, stabilization status, absence or presence of acute withdrawal, psychiatric comorbidity criteria, and medication status. More precise criteria would improve replicability and reduce ambiguity regarding participant eligibility.

In the participants paragraph, the exclusion criterion “receiving another structured psychological intervention during the study period” is appropriate, but the manuscript should also state how this was monitored. The authors should clarify whether participants were asked at each session about concurrent therapy, whether treatment-center records were reviewed, or whether this was assessed only at baseline. Without monitoring, contamination from other interventions could threaten the validity of the observed CBT effects.

In the data collection tools section, the sentence “Previous studies have reported acceptable reliability and validity for this instrument in clinical populations with substance use disorder” is insufficient for a manuscript-level methods section. For each instrument, the authors should report the number of items, response scale, scoring range, interpretation of scores, sample item if appropriate, and psychometric indices from previous validation studies. In addition, internal consistency coefficients for the present sample should be reported, preferably Cronbach’s alpha or McDonald’s omega for each scale.

Response: Revised and uploaded the manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.