

Comparison of the Effectiveness of Cognitive Behavioral Therapy and Acceptance and Commitment Therapy Educational-Therapeutic Packages on Anxiety and Alexithymia in Students with Self-Harming Behaviors

Fatemeh. Fathi¹, Niloufar. Tahmouresi^{2*}, Mahtab. Morveji³

¹ Department of Clinical Psychology, Ki.C., Islamic Azad University, Kish, Iran

² Department of Psychology, Ka.C., Islamic Azad University, Karaj, Iran

³ Department of Nursing & Midwifery, Za.C., Islamic Azad University, Zanzan, Iran

* Corresponding author email address: Niloufar.tahmouresi@kiaue.ac.ir

Editor

Seyed Ali Darbani^{id}
Assistant Professor, Department of
Psychology and Counseling, South
Tehran Branch, Islamic Azad
University, Tehran, Iran
Ali.darbani@iaue.ac.ir

Reviewers

Reviewer 1: Parvaneh Mohammadkhani^{id}
Professor, Department of Clinical Psychology, University of Rehabilitation Sciences
and Social Health, Tehran, Iran. Email: Pa.mohammadkhani@uswr.ac.ir
Reviewer 2: Mehdi Rostami^{id}
Department of Psychology and Counseling, KMAN Research Institute, Richmond
Hill, Ontario, Canada. Email: dr.mrostami@kmanresce.ca

1. Round 1

1.1. Reviewer 1

Reviewer:

The manuscript should substantially strengthen its safety and ethical procedures because the sample consists of minors with identified self-harming behaviors. The methods currently describe screening and treatment but do not explain how acute suicide risk was evaluated or managed. Please specify whether students were assessed for suicidal ideation, intent, plans, previous suicide attempts, medical severity of self-injury, or imminent risk before randomization and throughout treatment. The manuscript should also report the protocol followed when a participant was judged to be at elevated risk, including referral pathways, parental or guardian notification where appropriate, emergency procedures, and availability of professional clinical support. These details are essential in a study involving adolescent self-harm and should not be treated as routine ethical information.

The manuscript needs a dedicated ethics statement. Although the methods mention voluntary participation, there is currently no explicit statement concerning approval by an institutional ethics committee, an ethics approval code, informed consent from parents or legal guardians, assent from adolescent participants, confidentiality, the right to withdraw, or protection of sensitive self-harm data. Because all participants were aged 15–18 years, the consent process requires particular clarification. Please report the approving institution and ethics code, explain how parental consent and adolescent assent were obtained, and state how privacy was protected during school-based screening and intervention sessions. If the trial was prospectively registered, the registration number should also be reported.

There is an important inconsistency in the Self-Harm Inventory description that should be corrected throughout the manuscript. The source material originally described the SHI score range as 0–88, whereas a 22-item dichotomously scored instrument ordinarily yields a summed score from 0 to 22 when each “yes” response receives one point. The current Methods text correctly describes 0/1 scoring, but the authors should verify the scoring procedure against the exact version administered and report it consistently. More importantly, if a modified scoring system was used in the Iranian version, this should be explicitly documented and referenced. Any eligibility threshold must correspond to the actual scoring system used in this study.

In the Beck Anxiety Inventory paragraph, the manuscript attributes the instrument to “Beck and colleagues” but elsewhere gives 1990, while the cited international psychometric source is described as Beck et al. (1988). The bibliographic and instrument-development information should be reconciled. Please identify the exact version of the BAI administered, provide the correct original citation, and distinguish between the date of instrument development and the date of any Persian validation study. Additionally, because the participants are adolescents, the authors should provide psychometric evidence supporting use of the Persian BAI specifically in adolescent or school populations rather than relying mainly on adult clinical evidence.

In the Toronto Alexithymia Scale-20 paragraph, the authors provide extensive item-level scoring information but do not report the reliability coefficients obtained in the present sample. The same issue applies to the BAI and SHI. Reliability estimates from previous studies do not establish measurement reliability in the current dataset. Please calculate and report internal consistency coefficients, preferably Cronbach’s alpha and, where feasible, McDonald’s omega, for anxiety, total alexithymia, and the three TAS-20 dimensions in the present sample. Given that the EOT subscale has sometimes shown weaker internal consistency than the other TAS-20 components, its reliability should be examined particularly carefully before interpreting the large intervention effect reported for this dimension.

The CBT intervention protocol contains a methodological inconsistency regarding intervention length. The earlier description states that the CBT package was “typically 10 sessions,” whereas the actual protocol subsequently contains eight sessions. The manuscript-ready methods also describe eight sessions. The authors must establish exactly how many sessions participants actually received and ensure that this number is identical in the abstract, methods, intervention description, and any protocol materials. If the originally developed package consisted of 10 sessions but was adapted to eight sessions for this investigation, the adaptation process, rationale, omitted components, and evidence for content validity should be reported.

The CBT intervention requires a clearer theoretical connection to the study’s primary outcomes and target population. For example, the protocol includes “time-management strategies, structured academic planning, task segmentation, the Pomodoro technique, active review, and effective note-taking.” Although these techniques may reduce academic stress, their inclusion in a treatment intended to address anxiety, alexithymia, and self-harm requires stronger justification. Please explain how each major module was derived from the cited CBT framework and how it was expected to modify mechanisms relevant to self-harming behavior. The authors should also clarify whether the protocol was specifically developed for this study, adapted from a validated manual, or evaluated by experts for content validity before implementation.

The analysis of the alexithymia subscales should be described more accurately. Table 2 is labeled as containing “ANCOVA and MANCOVA,” but the table presents separate univariate F tests for Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking rather than the omnibus multivariate statistics that establish an overall MANCOVA effect. Please first report the omnibus multivariate group effect using an appropriate statistic such as Wilks’ Lambda, Pillai’s Trace, Hotelling’s Trace, or Roy’s Largest Root, including its F value, hypothesis and error degrees of freedom, p value, and multivariate effect size. Only after demonstrating a significant multivariate effect should the manuscript report the follow-up univariate ANCOVAs for the three subscales.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

The ACT intervention is more closely aligned with the six core ACT processes, but intervention fidelity remains unclear. The manuscript states that participants received acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action exercises, yet provides no information about the therapist. Please report the therapist's professional qualifications, clinical training in CBT and ACT, experience with adolescents and self-harm, whether the same therapist delivered both interventions, whether treatment manuals or session checklists were used, and whether sessions were supervised or independently rated for fidelity. Without these details, it is difficult to determine whether observed differences—or the absence of differences—reflect the interventions themselves or therapist-related influences.

The control condition requires much more precise description. The methods currently state that “the control group did not receive either of these interventions during the study period.” This leaves several possibilities unresolved: treatment as usual, waiting-list control, no-contact control, routine school counseling, or unrestricted access to external mental health services. Please specify what services control participants could receive, whether psychological treatment or medication during the study was monitored, and whether they were offered an intervention after posttest. This issue is especially important because withholding clinical support from adolescents with active self-harming behavior raises both methodological and ethical considerations.

The statistical analysis section should be revised because the stated degrees of freedom in Table 2 are incompatible with the reported sample size. The manuscript reports 45 participants divided equally among three groups, yet the ANCOVA error term is shown as $df = 45$. In a conventional ANCOVA with three groups and one covariate, the residual degrees of freedom cannot be 45 when the total sample itself is 45. Similarly, the source table reports total $df = 48$ for anxiety, implying a larger sample. These inconsistencies strongly suggest that the inferential values may not correspond to the described dataset. The authors should return to the original SPSS output, reconstruct every inferential table directly from the actual analysis, and verify sums of squares, degrees of freedom, mean squares, F statistics, p values, and effect sizes before the manuscript can be scientifically evaluated.

The numerical consistency of the ANCOVA results should also be checked independently of the degrees-of-freedom problem. In Table 2, the anxiety group effect reports a mean square of 925.20 and an error mean square of 7.67; their ratio is approximately 120.63, which is close to the reported $F = 120.50$. However, for total alexithymia, the reported group mean square is 1050.40 and the error mean square is 6.98, producing an F ratio of approximately 150.49 rather than exactly 150.40. Small discrepancies may result from rounding, but because multiple values appear to have been manually transcribed, all statistics should be exported directly from the software with consistent precision. The authors should also avoid reporting $p = .001$ when the software result is $p < .001$.

The assumptions paragraph is currently too generic and should provide actual statistics. The manuscript states that “no substantial departures from normality were identified,” that homogeneity of variance was supported, and that regression-slope interactions were nonsignificant, but none of the test values are reported. Please provide the actual results of the normality assessment, Levene's tests, tests of homogeneity of regression slopes, and, for MANCOVA, Box's M test where appropriate. Multivariate normality and problematic multicollinearity among DIF, DDF, and EOT should also be considered. Importantly, with only 15 participants per group, assumption violations could materially affect inference, so merely stating that assumptions were “acceptable” is insufficient.

Authors uploaded the revised manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.