






A Randomized Controlled Trial of Moral Reasoning Training versus General Life Skills Training to Reduce Impulsivity and Non-Suicidal Self-Injury in Adolescents

Sajedeh. Sharifi¹, Saeed. Doshmanfana^{2*}, Fateme. Yousefvand³, Mahsa. Teimouri⁴, Mona. Khalednejad⁵

¹ MSc in Clinical Psychology, Department of Clinical Psychology, Faculty of Medical Sciences, El.C., Islamic Azad University, Tehran, Iran

² Ph.D. Student in General psychology, Department of Psychology, Faculty of Humanities, University of Science and Art, Yazd, Iran


³ MSc in Clinical Psychology, Department of Clinical Psychology, Faculty of Medical Sciences, Ker.C., Islamic Azad University, Kermanshah, Iran

⁴ MA in General Psychology, Department Psychology, Faculty of Humanities, Se.C., Islamic Azad University, Semnan, Iran



⁵ Ph.D. in Health Psychology, Department of Psychology, Faculty of Humanities, Ka.C., Islamic Azad University, Karaj, Iran

* Corresponding author email address: sepinoodc@gmail.com

Editor

Gholamreza Rajabi¹
Professor of Counseling
Department, Shahid Chamran
University, Ahvaz, Iran
rajabireza@scu.ac.ir

Reviewers

Reviewer 1: Mohammadreza Zarbakhsh Bahri¹
Associate Professor (Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran. Email: M.Zarbakhsh@Toniau.ac.i
Reviewer 2: Mohammadreza Zarbakhsh Bahri¹
Associate Professor (Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran. Email: M.Zarbakhsh@Toniau.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

The sentence “NSSI typically emerges during early to mid-adolescence and is associated with a broad range of adverse outcomes...” repeats conceptual information already discussed two paragraphs earlier regarding prevalence and risks. Consider streamlining to avoid conceptual duplication.

The paragraph citing “moral reasoning in digital contexts” (e.g., Leichtmann et al., 2024) is informative but not clearly connected to NSSI. Revise to justify the relevance of AI-related or digital moral reasoning findings to self-harm interventions.

In the MRT description, the manuscript mentions “independent fidelity ratings for a random 20% sample of sessions” but does not specify inter-rater reliability values or thresholds for acceptable fidelity. Provide ICC values or kappa statistics.

The paragraph describing LST notes that it is “an evidence-based, manualized group program,” yet the manuscript does not provide citations or theoretical models supporting its mechanism of action. Add justification and references for LST as a credible active comparator.

In Data Analysis, the phrase “random intercepts (and slopes if supported by fit indices) model individual trajectories” indicates analytic flexibility but does not report whether random slopes were included in final models. Clarify final model structure.

When reporting the NSSI group \times time interaction, the manuscript states that MRT produced “ $\approx 38\%$ greater reduction” but does not offer a clinical interpretation of what this effect means (e.g., reduction in episode count per month). Provide absolute change values for clarity.

The manuscript presents Table 3 summarizing secondary outcomes but does not explain why certain constructs (e.g., PHQ-A, CGAS) improved substantially more in MRT. Add interpretation of potential mechanisms beyond moral reasoning.

In the mediation table, the authors state “Indirect effects were significant...” but do not report whether temporal precedence assumptions were met. Clarify whether mediator and outcome were measured in a temporally appropriate sequence.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

In the paragraph starting with “Moral reasoning is also closely intertwined with emotion regulation...”, the manuscript asserts this interaction but does not explain how moral reasoning influences emotion regulation mechanisms. Add citations or theoretical elaboration to strengthen conceptual validity.

In Study Design and Participants, the manuscript states that adolescents were recruited from “secondary schools, school-based health centers, and community mental health clinics,” yet does not specify socioeconomic background, regional distribution, or cultural considerations. Clarify representativeness to improve external validity.

The sentence “elevated impulsivity on screening (score above the 75th percentile on a validated adolescent impulsivity screener)” lacks specificity regarding which screener was used. State the instrument name and psychometric justification.

Although the authors describe stratified randomization, the section “Allocation is concealed...” does not describe whether baseline equivalence testing was conducted before analyses. Add statistical comparison tables or a statement confirming equivalence.

The sentence “Behavioral indices corroborated self-report findings” provides minimal interpretation. Expand to explain how improvements in the Go/No-Go task and delay discounting mechanistically relate to MRT content.

Safety outcomes in Table 5 show equal distress events across arms but the Discussion does not analyze whether MRT exercises (e.g., moral dilemma analysis) may heighten distress for some participants. Consider discussing potential emotional burden.

The Discussion paragraph starting “The superiority of MRT over LST...” attributes outcomes solely to targeted cognitive processes but does not consider nonspecific factors—such as facilitator style, group cohesion, or expectancy effects. Include alternative interpretation pathways.

In multiple places, the manuscript interprets findings generically, but adolescents were recruited in Iran. Cultural factors related to moral reasoning, family structure, and stigma around NSSI are not discussed. Add a culturally grounded interpretation.

The sentence “MRT may produce enduring cognitive changes rather than transient behavioral suppression” implies biological or structural changes without supporting evidence. Temper this claim or provide theoretical justification.

Authors uploaded the revised manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.