

The Effectiveness of Compassion-Focused Therapy on Mental Toughness and Mental Health in Mothers of Children with Autism Spectrum Disorder

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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 Introduction, the sentence “Mothers frequently undertake a substantial proportion of these duties” is plausible, but the argument would benefit from a more precise conceptualization of caregiver burden and maternal role concentration. The authors currently combine multiple stressors, including behavioral problems, financial pressure, social stigma, treatment coordination, and uncertainty about the future, without developing a coherent theoretical pathway connecting these stressors to mental toughness and mental health. A stronger introduction should specify whether the proposed mechanism is cumulative caregiving burden, chronic threat activation, reduced emotion-regulation capacity, self-criticism, or a combination of these processes. The conceptual model should clearly explain why compassion-focused therapy would be expected to affect both outcomes and whether mental toughness is considered a moderator, mediator, positive psychological resource, or independent treatment outcome.

In the Introduction, the paragraph beginning “One such capacity is mental toughness” requires closer conceptual scrutiny because the manuscript alternates among the terms “mental toughness,” “psychological toughness,” and “psychological hardiness.” These constructs are related but are not interchangeable. Mental toughness is commonly operationalized through confidence, control, commitment, and challenge, whereas psychological hardiness has a distinct theoretical history and is

usually conceptualized through commitment, control, and challenge. The Methods section refers to the MTQ-48 as measuring “psychological hardness,” while the title and findings refer to “mental toughness.” The authors should select one construct, justify the terminology theoretically, and use it consistently throughout the title, abstract, introduction, methods, results, discussion, tables, and conclusion. If the MTQ-48 was used, the manuscript should primarily refer to mental toughness unless a validated local adaptation explicitly supports another label.

In the Introduction, the sentence “Compassion and mental toughness should not be considered opposing constructs” is theoretically interesting but currently presented as an assertion rather than a testable rationale. The authors should more explicitly explain how specific compassion-focused therapy mechanisms map onto the four dimensions assessed by the MTQ-48. For example, compassionate self-reassurance may support confidence, reduced threat activation may improve emotional control, willingness to remain present with distress may strengthen commitment, and balanced appraisal of adversity may influence challenge orientation. Establishing this construct-level correspondence would provide a more rigorous basis for the hypothesis. It would also help readers understand why compassion-focused therapy, rather than resilience training or conventional cognitive-behavioral therapy, was selected as the intervention for mental toughness.

In the Methods section, the paragraph beginning “The present study employed a quasi-experimental pretest–posttest control-group design” should provide the dates and setting of recruitment and data collection. The manuscript currently states that the study was conducted in specialized autism centers in Shiraz but does not identify the number or type of centers, the recruitment period, or whether participants were drawn from public, private, rehabilitation, educational, or clinical services. These contextual details are important for assessing sample representativeness and external validity. The authors should also report whether recruitment occurred consecutively, through advertisements, clinician referral, or direct invitation. Without a transparent recruitment pathway, it is difficult to determine the extent of selection bias and whether the sample represents mothers experiencing relatively high distress, greater service engagement, or greater motivation for psychological treatment.

In the Intervention Protocol section, important information about treatment delivery is absent. The manuscript should identify the therapist’s academic degree, professional discipline, clinical experience, training in compassion-focused therapy, and access to supervision. It should also report the approximate group size, whether one or multiple therapy groups were conducted, session location, attendance rates, missed-session procedures, and whether sessions were audio- or video-recorded. Most importantly, treatment fidelity should be assessed using a session checklist, independent rating, therapist adherence scale, or supervision record. Without evidence of fidelity, it is not possible to determine whether the intervention was delivered consistently or whether the observed effects can reasonably be attributed to the intended compassion-focused therapy components.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

In the Methods section, the sentence “Following the screening process, 40 eligible mothers were included in the study and randomly allocated” requires substantial clarification. The manuscript should report the method of sequence generation, such as a computerized random-number generator, random-number table, block randomization, or simple drawing of lots. It should also state whether allocation was concealed from recruiters and assessors before assignment. If no formal randomization or concealment procedure was used, the term “randomly allocated” should be removed and replaced with an accurate description. This issue directly affects risk of bias and the classification of the study. A participant-flow description should also be added, indicating how many mothers were assessed for eligibility, excluded before assignment, declined participation, entered each group, completed the intervention, and were included in the final analysis.

In the Methods section, the inclusion and exclusion criteria are insufficiently operationalized. The sentence “Mothers with severe psychiatric conditions” does not indicate how severity was defined or assessed. The authors should specify whether psychiatric conditions were identified through clinical interviews, medical records, self-report, medication history, or screening instruments, and which conditions led to exclusion. Similarly, “failed to attend a sufficient number of treatment sessions”

requires a predefined threshold, such as absence from more than two of eight sessions. The manuscript should also clarify whether participants were required to have a minimum or maximum age, literacy level, caregiving duration, or baseline degree of psychological distress. Child-related eligibility criteria, including age, severity of autism, comorbid intellectual disability, and duration since diagnosis, should also be reported because these characteristics may influence maternal psychological outcomes.

In the Methods section, no a priori sample-size calculation is reported. Given that the final sample consisted of only 40 participants, the authors should provide a power analysis based on the expected multivariate or univariate intervention effect, the number of dependent variables, the number of covariates, the desired power, and the significance level. The observed effect sizes are extremely large, but post hoc effect magnitude cannot substitute for an a priori justification of sample adequacy. Without a sample-size calculation, it is unclear whether the study was designed to detect clinically plausible effects or whether the estimates are unstable because of the small sample. The authors should also discuss whether the sample size was based on previous compassion-focused therapy studies, feasibility constraints, dissertation requirements, or statistical considerations.

In the Data Collection Tools section, the paragraph describing the Mental Toughness Questionnaire lacks essential scoring and psychometric information. The authors should report the response scale, possible total-score range, treatment of reverse-scored items, subscale composition, and whether the total score or subscale scores were analyzed. The statement that “previous research has reported acceptable psychometric properties” is too general for a scientific report. The manuscript should provide reliability and validity evidence from the original instrument and, more importantly, from the language and cultural version administered in the present study. The internal consistency coefficient obtained in this sample should be reported numerically rather than merely described as acceptable. If the questionnaire was translated into Persian, the translation, back-translation, cultural adaptation, and validation procedures should be identified.

In the Data Collection Tools section, the description of the GHQ-28 creates uncertainty about scoring. The manuscript states that “mental-health scores were reverse-coded so that higher scores represented better mental health,” but it does not explain whether individual items, subscale scores, or the total score were reversed, nor does it provide the mathematical transformation used. The authors should specify whether the GHQ method, Likert method, or another scoring approach was applied and state the resulting score range. Because the GHQ-28 conventionally measures psychological distress, relabeling a reversed total score as “mental health” may complicate comparison with previous research. The authors should justify this decision, maintain consistent interpretation throughout the manuscript, and ideally report the original scoring direction or clearly name the variable “reverse-coded mental health” to avoid ambiguity.

In the Intervention Protocol section, the paragraph beginning “The experimental group received compassion-focused therapy based on the theoretical and therapeutic model developed by Gilbert” is not sufficiently detailed for replication. The authors should provide session-by-session objectives and core techniques in the text or supplementary material, even if a table is not used. At minimum, the manuscript should indicate the content of each of the eight sessions, the sequence in which psychoeducation, soothing-rhythm breathing, compassionate imagery, work with self-criticism, shame, guilt, and compassionate action were introduced, and the nature of assigned homework. The authors should also explain whether the protocol was taken from an established manual, adapted specifically for mothers of autistic children, or developed for the dissertation. Any adaptation process should be described and justified.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.