

Fitting a Conceptual Model of the Relationship of Basic Psychological Needs and Peer Group Attachment with Cyberbullying: The Mediating Role of Empathy among Upper Secondary School Students

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1. Round 1

1.1. Reviewer 1

Reviewer:

The paragraph describing multistage cluster random sampling should be expanded to provide sufficient information about the actual sampling frame. The manuscript currently states that educational districts, schools, and classes were randomly selected but does not report how many districts, schools, or classrooms were sampled, whether boys' and girls' schools were sampled separately, or whether public and non-public schools were proportionally represented. Because Iranian secondary schools may be organized by sex and because students are nested within classes and schools, these details are necessary for evaluating representativeness and the possibility of cluster-related dependence in the data.

The sentence "The questionnaires were administered collectively in classrooms in paper-and-pencil format under the supervision of the researcher" raises the possibility of response dependence and social desirability, especially for a sensitive behavior such as cyberbullying perpetration. The authors should describe how privacy was preserved during classroom administration, whether teachers remained in the room, whether students could see one another's responses, and how completed

questionnaires were returned. For a behavior that may carry disciplinary implications, perceived anonymity is critical to response validity, and the procedural safeguards should be described explicitly.

The paragraph on ethical procedures states that “no identifying information, including students’ names, surnames, or student identification numbers, was recorded,” whereas the source material also mentioned that a numerical code and a separate coding key were retained. These two descriptions are potentially inconsistent. If responses were truly anonymous, there should have been no re-identification key; if responses were confidential but linkable, the manuscript should use the term “confidential” rather than “anonymous.” The authors should resolve this discrepancy and accurately describe the data protection procedure.

The paragraph reporting model fit states that “the hypothesized model provided an adequate fit to the observed data,” but the reported values $\chi^2(47) = 86.24$, RMSEA = .057, GFI = .95, AGFI = .92, NFI = .94, CFI = .96, IFI = .96, and TLI = .95 do not appear in the original results supplied for the study. The authors should verify these values against the actual AMOS output and report only empirically obtained indices. If the model was modified, the manuscript should report both initial and modified model fit, identify each modification, and provide a theoretical justification rather than presenting a single final model without an audit trail.

The sentence “The model explained approximately 34% of the variance in empathy and 31% of the variance in cyberbullying” requires verification and should be accompanied by the corresponding R^2 values in the structural model table or figure. These values are central indicators of explanatory power but are not directly derivable from the reported standardized paths alone. The authors should report the exact squared multiple correlations from AMOS and discuss them cautiously as explained variance rather than predictive accuracy.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

The paragraph describing the Basic Psychological Needs Scale requires psychometric precision. The manuscript attributes the instrument to “Deci and colleagues and reported by Gagné and related researchers,” while the supplied methodological description refers to Deci et al. (2000) and Gagné et al. The exact source and version of the scale should be identified, including whether the measure assesses need satisfaction only or combines satisfaction and frustration. The scoring ranges and categorical interpretations such as “low,” “moderate,” and “high” should also be supported by an established source or removed if they are not validated cutoffs.

The sentence in the peer attachment instrument description stating that “higher appropriately scored values reflect stronger and more secure attachment to peers” needs clarification regarding reverse scoring. Because alienation is conceptually opposite to trust and communication, the authors should explicitly identify whether the alienation items were reverse-scored before computing the total attachment score. Without this information, the meaning of the reported total score of 38.34 is ambiguous and the structural coefficient involving peer attachment cannot be interpreted confidently.

The paragraph describing the Cyberbullying and Cybervictimization Experiences Questionnaire should distinguish clearly between the outcome analyzed in the structural model and ancillary descriptive variables. The manuscript reports both cybervictimization and perpetration descriptively, but the final conceptual model uses cyberbullying perpetration as the dependent variable. The authors should explicitly state that only the perpetration subscale was entered into the path model and explain why the overall combined cyberbullying–victimization score was not used. This distinction is essential because victimization and perpetration are related but theoretically different constructs.

The assumptions paragraph states that “univariate normality was supported because the Kolmogorov–Smirnov tests for the principal variables were non-significant,” but reliance on significance tests of normality is not ideal in a sample of 260. The authors should place greater emphasis on skewness, kurtosis, Q–Q plots, and residual diagnostics rather than interpreting non-significant Kolmogorov–Smirnov tests as proof of normality. Moreover, the reported Mardia statistics should be described with sufficient methodological detail, including the specific statistic used and its reference criterion, because the manuscript currently presents values such as 41.73 and 2.61 without explaining the computational basis.

The sentence “no influential multivariate outliers were identified that would materially affect the path estimates” introduces a result that is not documented elsewhere. The authors should specify the method used to detect multivariate outliers, such as Mahalanobis distance, Cook’s distance, leverage, or standardized residuals, and report the cutoff employed and the number of cases flagged or removed. Otherwise, this statement should be deleted because it currently appears unsupported.

Table 2 should be reconsidered in relation to the earlier descriptive and subscale-level correlation results. The final table reports correlations only among four composite variables, including basic psychological needs, peer group attachment, empathy, and cyberbullying, whereas the source results provided correlations among individual subdimensions. The authors should explain how the composite correlations of .49, .43, .44, $-.31$, $-.30$, and $-.40$ were derived and verify that they come directly from the dataset rather than being inferred from subscale correlations. If these values were recalculated, the manuscript should state this explicitly and ensure that all tables are based on the same analytic dataset.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.