

Structural Model of Adolescent Happiness Based on the Five Facets of Mindfulness: The Mediating Roles of Emotion Regulation, Resilience, and Social Support

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E d i t o r	R e v i e w e r s
John S. Carlson Distinguished Professor of the Department of Educational Psychology, Michigan State University, East Lansing, MI, United carlsoj@msu.edu	Reviewer 1: Zahra Yousefi Assistant Professor, Department of Psychology, Isfahan Branch (Khorasgan), Islamic Azad University, Isfahan, Iran. Email: Z.yousefi1393@khuif.ac.ir Reviewer 2: Mohsen Kachooei Assistant Professor of Health Psychology, Department of Psychology, Humanities Faculty, University of Science and Culture, Tehran, Iran. kachooei.m@usc.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

The paragraph discussing Monitor and Acceptance Theory states that “monitoring increases awareness of emotional and sensory events, whereas acceptance reduces maladaptive evaluative reactions to them.” The theoretical integration is useful, but the connection between this two-component framework and the five-factor structure of the FFMQ remains underdeveloped. The authors should explain more precisely which FFMQ facets are presumed to operationalize monitoring and which reflect acceptance-related processes. This would provide a stronger theoretical foundation for the later interpretation that Non-reactivity and Non-judging are particularly important predictors of emotion regulation and happiness.

The final part of the Introduction identifies emotion regulation, resilience, and perceived social support as parallel mediators, but the rationale for treating them as statistically parallel rather than causally ordered is insufficiently developed. For example, adaptive emotion regulation could plausibly enhance resilience, while resilience may influence perceptions of social support, and social support may itself strengthen resilience. The authors should explicitly acknowledge these alternative sequential pathways and justify why the present model treats the three mediators as simultaneous, correlated mechanisms rather than

specifying serial mediation. This clarification is important because the current cross-sectional design cannot empirically determine their causal ordering.

The statistical analysis section states that “absolute skewness values below approximately 2 and absolute kurtosis values below approximately 7 were considered acceptable for maximum-likelihood estimation,” yet the Results provide only a general statement that distributions were approximately symmetric. The authors should report actual skewness and kurtosis values, preferably in Table 1 or supplementary material, if these indices were explicitly used to justify maximum-likelihood estimation. In addition, multivariate normality should be evaluated because acceptable univariate distributions do not guarantee multivariate normality, which is more directly relevant to conventional maximum-likelihood SEM.

The manuscript describes an “observed-variable structural equation model,” but the statistical rationale for using SEM rather than path analysis should be clarified. Because all constructs were represented by observed composite scores rather than latent factors, the model is technically a path model within the SEM framework. The terminology should be made consistent throughout the manuscript. More importantly, the authors should acknowledge that the use of observed scores assumes measurement without error and may bias structural estimates, especially where scales differ substantially in reliability.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

In the Study Design and Participants section, the sentence “Five educational districts, including Districts 2, 5, 8, 11, and 16, were selected to represent northern, western, central and eastern, and southern areas of the city” requires more methodological detail. The authors should specify whether these districts were randomly selected, purposively selected based on socioeconomic indicators, or chosen for administrative feasibility. If the districts were purposively selected, the manuscript should state the criteria used to establish geographic and socioeconomic representativeness. Without this information, the multistage cluster sampling procedure cannot be fully evaluated or replicated.

The participant flow requires additional transparency. The manuscript reports that “638 adolescents received the study questionnaires,” that 619 returned them, and that 15 records were excluded because of “highly patterned responses, internally inconsistent response profiles, or other indications of clearly invalid questionnaire completion.” The authors should define the exact criteria used to identify invalid responding. For example, they should state whether they used long-string indices, excessive missingness thresholds, Mahalanobis distance, response-time criteria, or logically inconsistent item patterns. Excluding cases based on subjective judgment can introduce selection bias unless reproducible screening rules are specified.

The Methods section states that the final sample “exceeded conventional recommendations for achieving stable parameter estimation in an observed-variable SEM of comparable complexity.” This statement should be supported by a more transparent sample-size rationale. Rather than relying only on a general SEM reference, the authors should report either an a priori power analysis, a Monte Carlo-based justification, or a parameter-to-sample-size rationale tied specifically to the number of estimated paths and anticipated effect sizes. Given that the study tests multiple indirect effects, statistical power for mediation should also be considered separately from power for overall model estimation.

The description of the Five Facet Mindfulness Questionnaire reports only Cronbach’s alpha values ranging from .79 to .87 for the present sample. Because the entire structural model depends on differential facet-level interpretation, the authors should report the reliability coefficient for each of the five FFMQ subscales separately rather than providing only a range. It would also be preferable to report McDonald’s omega in addition to alpha, because several FFMQ facets may not satisfy tau-equivalence. This information is particularly important because measurement unreliability can attenuate path coefficients differently across facets.

The operationalization of adaptive emotion regulation requires stronger justification. The manuscript states that “an adaptive cognitive emotion-regulation composite was calculated from the acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting into perspective dimensions.” The authors should explain why acceptance was classified as adaptive

in this adolescent sample and whether this scoring approach was established before analysis. Because CERQ strategies can show context-dependent associations with adjustment, combining five theoretically distinct strategies into one composite may conceal meaningful differences. At minimum, the authors should provide evidence that the five selected subscales formed a sufficiently coherent composite in the present sample.

Response: Revised and uploaded the manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.