

Structural Equation Modeling of Intolerance of Uncertainty and Anxiety Sensitivity in Early Adolescence

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the paragraph beginning “Theoretical models increasingly conceptualize intolerance of uncertainty and anxiety sensitivity as interconnected yet distinct constructs...”, the authors propose a hierarchical vulnerability structure but do not provide a conceptual diagram or formal theoretical specification. It would strengthen the manuscript to explicitly define whether intolerance of uncertainty (IU) is hypothesized as a second-order factor or as an upstream latent predictor in a structural vulnerability cascade.

The statement “Early adolescence represents a critical developmental period characterized by rapid biological maturation...” would benefit from integration of developmental neurocognitive frameworks (e.g., prefrontal–limbic imbalance models). Currently, the developmental claim is general and lacks specificity regarding why IU–AS pathways may be particularly salient between ages 11–14.

In the sentence “our structural model specifically highlights intolerance of uncertainty as an antecedent factor...”, the authors imply temporal precedence. Given the cross-sectional design, this claim should be more cautiously phrased. Structural equation modeling (SEM) does not establish causality in cross-sectional data; this should be explicitly acknowledged.

The sample is evenly split by gender (214 girls, 214 boys), yet no multi-group invariance analysis was conducted. Given known gender differences in anxiety vulnerability, testing measurement and structural invariance across gender would significantly enhance the manuscript.

The manuscript states: “six extreme cases were removed prior to final analysis.” Please clarify the criteria used (e.g., $p < .001$ threshold for Mahalanobis distance) and report whether results materially changed when including these cases.

Authors uploaded the revised manuscript.

1.2. *Reviewer 2*

Reviewer:

The paragraph referencing anterior insula connectivity (DeSerisy et al., 2020) implies neural mechanisms underlying the present findings. However, no neurobiological data were collected in this study. The inference from structural modeling to neural circuitry is speculative and should be reframed as theoretical alignment rather than empirical support.

The authors report that confirmatory factor analyses (CFA) were conducted but do not provide information regarding factor loadings ranges, modification indices, or whether correlated residuals were permitted. Including a table summarizing standardized loadings and fit modification decisions would enhance transparency.

Table 1 lists “Prospective Anxiety” and “Inhibitory Anxiety” as IU subdimensions, but the manuscript does not explicitly justify the two-factor structure of IU in Turkish adolescents. Please clarify whether a second-order model was tested and whether alternative models (e.g., bifactor) were compared.

The manuscript states that Cronbach’s alpha values exceeded .80 but does not provide exact coefficients for IU total, IU subscales, AS total, and AS subscales. Please report the precise alpha (or preferably McDonald’s omega) values for each construct.

In the Results section, the authors state: “This effect size can be interpreted as substantial.” While $\beta = .63$ and $R^2 = .40$ are indeed large, it would strengthen the interpretation to contextualize this magnitude relative to prior adolescent SEM findings in the IU literature.

Although global fit indices are reported (χ^2 , CFI, TLI, RMSEA, SRMR), confidence intervals for RMSEA are not provided. Reporting the 90% confidence interval for RMSEA would align with best practices in SEM reporting.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.