

A Multigroup Structural Equation Model of Family Functioning, Identity Development, and Risk-Taking Behaviors among Adolescents


Verónica. Escalante¹, Liam. Desrosiers^{2*}

¹ Department of Educational Psychology, José Simeón Cañas Central American University, San Salvador, El Salvador


² Department of Behavioral Neuroscience, Laval University, Quebec City, Canada


* Corresponding author email address: liam.desrosiers@ulaval.ca

Editor

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

Reviewers

Reviewer 1: Mohammad Salehi¹
Associate Professor, Department of Educational Management, Sari Branch, Islamic
Azad University, Sari, Iran. Email: drsalehi@iausari.ac.ir

Reviewer 2: Seyed Ali Darbani¹
Assistant Professor, Department of Psychology and Counseling, South Tehran
Branch, Islamic Azad University, Tehran, Iran.
Email: Ali.darbani@iau.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

In the paragraph beginning “Family functioning is a multidimensional construct encompassing communication patterns, cohesion, problem-solving abilities...” (page 2), the construct is introduced comprehensively; however, it remains unclear which dimensions were theoretically expected to exert the strongest influence on identity development. Since the Family Assessment Device contains multiple domains, the rationale for modeling family functioning as a single latent factor rather than examining differential effects of specific dimensions should be discussed and justified.

The paragraph stating “Risk-taking behaviors during adolescence are multifaceted, encompassing both adaptive and maladaptive forms” (page 2) raises an important conceptual distinction. However, the Adolescent Risk-Taking Questionnaire primarily assesses maladaptive risk behaviors. Therefore, the discussion of adaptive risk-taking creates conceptual ambiguity. The authors should clarify whether the study focuses exclusively on maladaptive risk-taking and revise the theoretical framing accordingly.

In Table 1, the authors report correlations among selected variables, including Family Communication, Family Cohesion, and Family Problem Solving (page 6). However, other FAD dimensions such as affective responsiveness, affective

involvement, behavioral control, roles, and general functioning are absent. The rationale for including only three family-functioning indicators in the correlation matrix should be explained.

In the paragraph following Table 1, the authors conclude that “Family functioning indicators demonstrated relatively high mean scores, suggesting generally positive family environments” (page 6). Given the earlier description that higher FAD scores represent poorer functioning, this interpretation appears contradictory. This issue affects the validity of subsequent interpretations and must be resolved before publication.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

In the paragraph beginning “Identity development is another critical domain influencing adolescent behavior” (page 3), the authors describe the multidimensional structure of identity development. However, the rationale for combining the five DIDS dimensions into a single latent identity construct is not adequately justified. Given that exploration and commitment dimensions may have distinct associations with risk-taking behaviors, a stronger theoretical explanation for this modeling decision is required.

The statement “This mediating role of identity development has been documented across diverse contexts and populations” (page 3) would benefit from a more critical synthesis of prior evidence. Specifically, the authors should indicate whether previous mediation studies have reported full mediation, partial mediation, or inconsistent findings, and explain how the current study contributes to resolving these discrepancies.

In the final paragraph of the Introduction, the authors state that “The aim of the present study was to examine the relationships among family functioning, identity development, and risk-taking behaviors among adolescents in Canada” (page 4). However, no explicit hypotheses are presented. Considering that SEM is a confirmatory analytical technique, the manuscript would be strengthened by including clearly stated directional hypotheses regarding direct, indirect, and gender-invariance effects.

In the Methods section, the authors report that “Participants were selected through a multistage cluster sampling procedure” (page 4). Additional methodological detail is required. Specifically, the manuscript should indicate the number of school districts, schools, and classrooms selected at each stage, as well as participation rates. Without this information, it is difficult to assess sampling representativeness and potential selection bias.

The sentence “Students with diagnosed cognitive impairments that could interfere with questionnaire completion were excluded from the study” (page 5) requires further clarification. The authors should explain how these diagnoses were identified (e.g., school records, self-report, parent report, or teacher report) and whether exclusion decisions followed standardized criteria.

In the Measures section, the authors note that “Higher scores indicate poorer family functioning” for the FAD (page 5). However, subsequent results and interpretations describe higher scores as reflecting healthier family environments. This apparent inconsistency requires clarification. The manuscript should explicitly explain whether FAD scores were reverse coded before analysis and how latent variables were specified in the SEM.

The paragraph describing the DIDS measure (page 5) provides psychometric information from prior studies but does not report psychometric properties for the current sample. The authors should present Cronbach’s alpha, composite reliability, average variance extracted (AVE), and factor loadings for each construct in the present dataset to demonstrate measurement adequacy.

In the Data Analysis section, the authors state that “data were screened for missing values, outliers, normality, multicollinearity, and adherence to assumptions required for structural equation modeling” (page 5). However, no results of these diagnostic procedures are reported. The manuscript should provide specific statistics regarding missing data percentages, treatment procedures, skewness and kurtosis values, multicollinearity indices, and outlier assessment.

The sentence “Acceptable model fit was determined according to commonly recommended cutoff criteria” (page 5) is insufficiently specific. The authors should cite the exact fit criteria employed (e.g., CFI > .90 or .95, RMSEA < .08 or .06) and provide supporting methodological references to justify these thresholds.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.