

Explainable AI Modeling of Adolescents' Psychological Adjustment Using Coping Styles, Social Support Quality, and Life Stress Exposure

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1. Round 1

1.1. Reviewer 1

Reviewer:

The paragraph beginning "In fragile and post-conflict societies such as Iraq..." would be strengthened by briefly citing concrete contextual indicators (e.g., educational disruption rates, conflict exposure prevalence) to justify why Iraqi adolescents represent a uniquely high-risk population.

In the Measures section, the description of the "Adolescent Psychological Adjustment Scale" lacks item count, sample item content, and scoring range. This information is essential for reproducibility and should be added.

In Data Analysis, please include hyperparameter optimization procedures (grid search? Bayesian?) for Random Forest, XGBoost, and Neural Network models. Without this, model replication is not possible.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

The sentence “All instruments underwent a translation–back translation process” requires further methodological detail. Please specify translators’ qualifications, reconciliation procedures, and whether any cultural equivalence testing (e.g., pilot cognitive interviews) was conducted.

In Study Design and Participants, the authors state that sampling ensured representativeness across socioeconomic strata. Please explain how socioeconomic stratification was operationalized during cluster selection.

The paragraph “Data preprocessing included missing value imputation using k-nearest neighbors” requires justification. Why was KNN preferred over multiple imputation or model-based methods? Please report missingness percentage per variable.

The phrase “detection and removal of multivariate outliers via Mahalanobis distance” should specify the cutoff threshold used and the number of cases removed.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.