Explainable AI Forecast of Psychological Distress in Adolescents Based on Family Conflict, School Pressure, and Emotion Regulation Capacity

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1. Round 1

1.1. Reviewer 1

Reviewer:

Please more explicitly articulate how this study advances existing work by contrasting your approach with prior predictive models and clarifying what remains unresolved in the literature.

The practical meaning of SHAP values should be elaborated. For example, explain how changes in SHAP magnitude translate into changes in predicted psychological distress.

The figure should include clearer legends, axis labels, and color explanations to improve interpretability and reproducibility.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

The rationale for selecting Germany should be strengthened with additional context regarding national educational structure, adolescent mental health trends, or policy relevance.

Although the multi-stage cluster sampling strategy is described, potential school-level nonresponse bias and its implications for generalizability should be discussed.

The statement "Cronbach's alpha coefficients exceeding 0.80" should be disaggregated so that reliability coefficients are reported separately for each scale.

Please specify which variables contained missing data and report the diagnostic tests that justified the use of expectation–maximization imputation.

Given the complexity of the model and high predictive performance, the manuscript should explicitly discuss overfitting prevention strategies and their effectiveness.

Authors uploaded the revised manuscript.

2.   Revised

Editor's decision after revisions: Accepted.
Editor in Chief's decision: Accepted.