

Explainable AI Models for Identifying Personality-Driven Risk Factors in Psychosomatic Disorders

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Bahram Jowkar  Professor of Psychology Department, Shiraz University, Iran jowkar@shirazu.ac.ir	Reviewer 1: Ali Khodaei  Department of Psychology, Faculty of Educational Sciences and Psychology, Payam Noor University, Tehran, Iran. Email: alikhodaei@pnu.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:

Consider adding approximate prevalence ranges or comparative burden indicators to strengthen the epidemiological justification and contextualize the clinical relevance of predictive modeling.

Introduction, Paragraph 3 – Personality construct clarity

The term explanatory may be conceptually overstated given the cross-sectional nature. Consider replacing or qualifying it (e.g., explanatory modeling rather than causal explanation).

Please clarify whether recruitment sources differed systematically (clinic vs. online), and whether selection bias was assessed or mitigated.

The specific instrument name should be reported for transparency and replicability. High-impact journals typically require exact scale identification.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

The manuscript lists several constructs, but does not clarify whether they are treated as distinct predictors or overlapping latent domains. A brief conceptual clarification would improve construct validity and prevent interpretive ambiguity later.

This is a strong theoretical statement. However, the manuscript would benefit from explicitly mapping how network or systems theory informs the choice of nonlinear ML models, beyond general alignment.

Please clarify why traditional multivariate or SEM approaches are insufficient for the current research question, thereby strengthening the methodological necessity of ML.

This paragraph is conceptually strong, but would benefit from briefly distinguishing global vs. local explainability, as both are later used but not theoretically differentiated here.

The gap is well articulated, but it would be strengthened by explicitly stating what prior studies failed to explain, rather than only what they failed to include.

The aim is clear; however, consider adding a secondary exploratory aim (e.g., identifying nonlinear thresholds or interaction profiles) to better reflect the depth of the analyses conducted.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor's decision: Accepted.

Editor in Chief's decision: Accepted.