




Modeling Internet Addiction Severity Using Deep Learning: Effects of Impulsivity, Emotional Dysregulation, Reward Sensitivity, and Fear of Missing Out

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1. Round 1

1.1. Reviewer 1

Reviewer:

The paragraph stating “Recent empirical evidence highlights that internet addiction is not a homogeneous construct...” would benefit from a more critical synthesis of cited studies rather than descriptive aggregation; specifically, inconsistencies or debates in prior findings should be highlighted to justify the modeling approach.

The discussion of impulsivity, particularly the sentence “Impulsivity has been consistently linked to various forms of behavioral addiction...,” lacks differentiation between impulsivity subcomponents; the authors should clarify whether attentional, motor, or non-planning impulsivity drives the observed effects.

In the paragraph on emotional dysregulation, the claim “individuals may turn to internet use as a maladaptive coping strategy” is theoretically sound but would benefit from integrating a specific theoretical framework (e.g., compensatory internet use theory) to strengthen conceptual grounding.

The reward sensitivity section, especially the sentence “*Neurocognitive research indicates that heightened reward sensitivity...*,” introduces neuroscientific evidence but does not align it explicitly with the study’s self-report methodology, creating a conceptual-methodological mismatch that should be addressed.

The Data Analysis section includes the sentence “*Missing data were handled using multiple imputation techniques,*” but lacks specification of the imputation method (e.g., MICE, EM algorithm), number of imputations, and convergence diagnostics.

The description “*multiple hidden layers with rectified linear unit (ReLU) activation functions*” is insufficiently detailed; the authors should report exact architecture (layer-wise configuration) in the text rather than relying solely on a table.

Authors revised and uploaded the document.

1.2. Reviewer 2

Reviewer:

The paragraph introducing FoMO includes the statement “*FoMO has emerged as one of the most salient psychosocial variables...*,” yet lacks operational clarification; the authors should specify whether FoMO is treated as a trait, state, or situational construct in this study.

The sentence “*Modern digital platforms are intentionally engineered to maximize user engagement...*” introduces a design-based perspective but remains underdeveloped; the authors should either expand this into a formal variable consideration or remove it to maintain conceptual coherence.

In the final paragraph of the introduction, the statement “*Existing studies often examine predictors in isolation...*” would benefit from citing specific examples of such studies to substantiate this critique and justify the integrated modeling approach.

Within the Methods section, the phrase “*stratified convenience sampling*” requires clarification, as these are conceptually distinct sampling strategies; the authors must explicitly describe how stratification was operationalized within a convenience framework.

The inclusion criteria sentence “*regular users of the internet for at least two hours per day*” appears arbitrary; justification or citation for this threshold is necessary to support its validity.

In the Measures subsection, the claim “*All instruments demonstrated acceptable internal consistency...*” should be accompanied by exact Cronbach’s alpha values for each scale rather than a general statement.

Authors revised and uploaded the document.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.