

Predicting Cyberbullying Perpetration from Moral Disengagement, Online Disinhibition, Trait Aggression, and Social Network Density Using Random Forests

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1. Round 1

1.1. Reviewer 1

Reviewer:

While the focus on a South African adolescent and young adult sample is a notable strength and adds contextual novelty, the paper does not provide sufficient socio-cultural detail (e.g., digital access patterns, school and youth center context, language diversity, socioeconomic distribution) to allow readers to judge the generalizability and boundary conditions of the findings; the authors should more carefully describe the sampling frame, inclusion/exclusion criteria, and how representative the final analytical sample is of South African youth more broadly.

The methods section lacks critical numerical information (exact sample size, age range and mean, gender distribution, and other demographic characteristics), which is essential for evaluating statistical power, external validity, and possible confounds; the placeholders (“exactly participants”, missing Ns and descriptive statistics) must be replaced with complete data, and a concise table summarizing demographics should be added.

The discussion successfully links trait aggression, moral disengagement, and online disinhibition back to the literature, but the treatment of social network density and the broader social context remains underdeveloped; the authors should elaborate on how network structure might interact with individual traits (e.g., aggressive adolescents embedded in dense deviant peer

networks), clarify how their self-reported density measure relates to actual network metrics, and discuss why density emerged as the least important predictor in light of existing social network and bystander research.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

Measurement descriptions are generally adequate but remain somewhat generic and under-specified; the authors should report full psychometric details for each scale in the current sample (Cronbach's α or ω with confidence intervals, example items, response ranges, scoring procedures, and any cultural adaptation or translation steps undertaken) and, if applicable, provide evidence of construct validity (e.g., factor structure, item removal) rather than relying only on reliabilities from previous studies.

The description of the machine learning pipeline is promising but not yet reproducible; the authors should specify all key preprocessing and modeling choices in more detail, including: exact missing-data rates and rationale for KNN imputation (k, distance metric, variables used), the exact train-test split proportion and random seed, the number of trees, range and distributions used in the randomized search, the number of cross-validation folds, class balancing strategy (if classes were imbalanced), and software/libraries (with versions) used for the Random Forest implementation.

The results section provides qualitative statements about correlations, model performance, and feature importance without disclosing the underlying numerical values, which severely limits interpretability; the authors need to restore and report all key statistics (Ns, means, SDs, α s, correlation coefficients with p-values and CIs, confusion matrix counts, accuracy, precision, recall, F1, AUC with CIs, and standardized feature importance scores) in well-formatted tables and figures, and they should clearly differentiate between training and test performance to guard against overfitting.

The interpretation of the Random Forest model and variable importance appears somewhat deterministic and may overstate causal implications; the authors should be more cautious in their language (emphasizing prediction rather than causation), acknowledge that feature importance reflects association within the model rather than causal priority, discuss potential multicollinearity and interactions (e.g., moral disengagement \times online disinhibition), and consider validating their findings with additional checks such as partial dependence/accumulated local effects plots or, at minimum, a simpler benchmark model (e.g., logistic regression) for comparison.

Authors uploaded the revised manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.