Review of: "Which Attributes Explain Gender Differences in Impostor Syndrome Scores in Medicine and Health Sciences Students: A Secondary Multivariate Analysis"

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Potential competing interests: No potential competing interests to declare.

The paper is interesting. However, I raised some concerns that may improve the paper.

Sample Size and Diversity: The study involves 753 medical and health sciences students, but it is unclear how diverse this sample is in terms of demographics (e.g., age, ethnicity, socioeconomic status). A lack of diversity may limit the generalizability of the findings to broader populations.

Methodological Rigor: The article mentions using a multivariate analysis of variance (MANOVA) but does not provide details on the assumptions of this analysis (e.g., normality, homogeneity of variance). Failure to meet these assumptions could compromise the validity of the results.

Measurement Validity: While the Clance Impostor Phenomenon Scale (CIPS) is widely used, the article does not discuss its validity and reliability in the specific context of the studied population. This raises concerns about whether the scale accurately measures Impostor Syndrome in this demographic.

Gender Definitions: The article discusses gender differences but does not clarify how gender is defined and measured. This lack of clarity could lead to misunderstandings about the findings, especially in the context of non-binary or gender-fluid individuals.

Causal Inferences: The study claims to discern item-specific gender disparities in IS manifestations but does not establish causality. Without longitudinal data or an experimental design, it is difficult to determine whether gender influences IS or if other factors are at play.

Overgeneralization of Findings: The article suggests that the findings indicate a need for gender-specific educational and clinical strategies. However, this recommendation may overlook individual differences and the complexity of IS, which may not be solely attributable to gender.

Lack of Contextual Factors: The introduction mentions societal expectations and professional context as potential moderators of IS, but the study does not explore these factors in depth. Ignoring these variables may lead to an incomplete understanding of the phenomenon.

Implications for Practice: While the article emphasizes the importance of creating supportive environments, it lacks

specific recommendations or strategies for implementing these changes in educational or clinical settings.

Potential Bias in Self-Reporting: The reliance on self-reported measures for assessing IS may introduce bias, as individuals may not accurately report their feelings or may be influenced by social desirability.

Limited Discussion of Findings: The article presents findings on gender differences in IS but does not adequately discuss the implications of these differences for future research or practice. A more thorough exploration of how these findings can inform interventions would strengthen the article's contribution to the field.

Thank you,

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