

Peer Review

Review of: "Evaluation of Diabetes Risk Score Tool for Detecting Undiagnosed Type 2 Diabetes Mellitus in Referral Clinics at Primary Health Care Centers in Sudan: A Cross-Sectional Study"

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1. Reference Standard Limitation

The study used HbA1c as the sole diagnostic reference. Although clinically acceptable, HbA1c alone may underestimate diabetes in populations with hemoglobinopathies or anemia, which are prevalent in Sudan.

Suggested Improvement

Discuss potential diagnostic misclassification bias.

Consider acknowledging alternative confirmatory tests such as fasting plasma glucose or oral glucose tolerance testing.

2. External Validity and Selection Bias

Participants were recruited from referral primary healthcare centers, which may overrepresent individuals already seeking medical care.

Suggested Improvement

Discuss potential differences between healthcare attendees and community populations.

Clarify referral pathways and reasons for clinic attendance.

3. Gender Imbalance

The sample is predominantly female, which may influence the predictive performance of the risk score.

Suggested Improvement

Conduct subgroup analysis by gender.

Discuss potential behavioral or healthcare utilization factors influencing female predominance.

4. Modification of Original Risk Score Tool

The addition of three culturally specific questions to the original questionnaire could alter tool calibration.

Suggested Improvement

Provide validation methodology for modified items.

Report internal consistency or factor analysis if available.

Clarify whether score weighting was adjusted.

5. Use of Random Blood Glucose as Screening Parameter

Random glucose testing without standardized timing or meal status may introduce measurement variability.

Suggested Improvement

Clarify time since last meal before RBG testing.

Discuss RBG limitations compared with standardized fasting measurements.

Declarations

Potential competing interests: No potential competing interests to declare.