

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"

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Potential competing interests: No potential competing interests to declare.

Overall, the article provides a comprehensive overview of the prevalence of diabetes and the need for early detection strategies in Sudan. The introduction effectively highlights the global and regional significance of diabetes as a public health problem. The article presents relevant statistics and references to support the statements made.

In terms of clarity, the article generally explains the concepts and findings in a clear manner. However, there are a few areas where the writing could be improved for better comprehension. For example, in the sentence "Moreover, the IDF announced that the number of people with diabetes worldwide will reach 693 million by 2045," it would be clearer to specify that "693 million" refers to the projected number of people with diabetes.

The article also provides a clear outline of the study objectives and methodology. It describes the inclusion and exclusion criteria for participants, as well as the data collection methods used. However, there are a few instances where the description could be more concise and streamlined. For example, the sentence "Data were gathered through face-to-face interviews, weight, height, waist circumference measurements, and blood spot samples" could be simplified to "Data were collected through face-to-face interviews and physical measurements."

Regarding the strength of the arguments, the article effectively emphasizes the need for early detection and prevention strategies for diabetes in Sudan. It highlights the advantages of implementing a simple and non-invasive screening tool and makes a case for the potential impact on reducing healthcare expenditures and preventing complications.

In terms of improvement, it would be beneficial to provide more context and justification for the selection of the DRS tool and its relevance to the Sudanese setting. Additionally, the article could benefit from further elaboration on the potential implications and practical applications of the study findings.

Overall, the article provides a solid foundation, but there are areas where the writing could be refined for better clarity and more robust arguments.

Based on the provided data, here are some key findings from the study conducted among attendees of Referral Primary Health Care Centers at Khartoum State:

1. Response rate: A total of 214 outpatient attendees were enrolled, resulting in a response rate of 94.7%. Only 5.3% did

not consent to participate in HbA1c testing.

2. Gender distribution: The participants were 22.9% males and 77.1% females.

3. Age distribution: The age group of 38-47 years had the highest percentage of participants (37.9%), while the age group of 58-67 years had the lowest percentage (9.3%).

4. Place of origin: The majority of participants (40.7%) were originally from the central region, followed by the west region (32.7%).

5. Marital status: 77.6% of the study population were married.

6. Occupation: 51.4% of participants were employed, while 48.6% were not employed.

7. Family size: 52.8% of participants had more than 5 family members.

8. Medical history: 31.2% of participants had a history of high blood pressure or were taking medication for hypertension. Additionally, 41.1% had a family history of diabetes, and 13.6% had a history of high glucose levels at some point.

9. BMI and waist circumference: 34.6% of participants had a normal BMI, while 29.4% were overweight, and 36% were obese. The majority of women (46.7%) had a waist circumference of 88 cm or more, while the majority of men (55.1%) had a waist circumference less than 94 cm.

10. Lifestyle factors: Only 9% of the study population were smokers, and 76% were physically inactive. The majority of participants consumed vegetables more than twice a week (92.5%), while fruits were consumed more than twice a week by 34.1% of participants.

11. Blood glucose levels: The majority of participants (93%) had normal RBG values (< 140 mg/dl), and 86% were negative for diabetes according to the HbA1c result ($< 6.4\%$).

It's important to note that the provided information is a summary of the results and does not include the complete details of the study or its methodology.