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.

Thank you for the opportunity to review this very interesting paper.

Here are my thoughts for potential improvements and clarifications:

1. Can you please also note the prevalence of T1DM in this population if available? Did any of the screened participants end up being diagnosed with T1DM? Many of the participants were younger, so it is possible. This also applies to Intro paragraph 1; I would like to see a breakdown by type of diabetes if possible (if data not available, suggest stating this also).

2. Abstract conclusion - is "applicable" the best word choice here? Maybe "beneficial?"

3. Intro paragraph 1, "The prevalence of diabetes….by nearly half (49%) are undiagnosed" - can you provide a reference here?

4. When you describe collecting your questionnaire, I suggest including a sentence describing what you mean by "systematic random sampling" - how exactly was this done?

5. Data collection procedures, paragraph 3, regarding the cutoff point of 140 mg/dL - did you gather any data on the fasting status of these patients or how long it had been since they had last eaten? I know that these were "random" BG readings, but I suggest including a sentence about whether or not this was obtained.

6. Ethical considerations, word choice - consider "penalty" as an alternative to "suffering any consequences," as it may sound more concise.

7. Can you comment on why you had significantly more female participants? Are females more likely to seek health care at these locations or perhaps more willing to fill out questionnaires?

8. When you noted "number of family members" - do you mean living in the same home?

9. Paragraph above Table - 2nd sentence is phrased a little awkwardly.

10. Paragraph under Table 2 regarding BMI and waist circumference - suggest keeping terminology consistent, use "normal" not "regular" for males as well.

11. Discussion paragraph 5, first sentence, do you mean "identifying" or "preventing?" Based on your data, my impression was that you were seeking to identify undiagnosed cases of DM.

12. Just a general comment - I think that you should have a sentence or two in the discussion saying that this is a screen only and does not replace a laboratory diagnosis. Also, if an individual has clinical signs and symptoms of DM, he/she

should still have a laboratory screen even if the DRS was negative.

13. Another general comment/suggestion - perhaps correlating some of your data with DRS scores in a multivariate analysis could identify certain subgroups that have better PPV or NPV, i.e., younger obese females who smoke or something like that.