

**COMMENT ON: PREVALENCE AND CORRELATES OF DIABETES MELLITUS AND DYSLIPIDAEMIA IN A LONG-STAY INPATIENT SCHIZOPHRENIA POPULATION IN SINGAPORE**Singapore Med J 2019; 60(2): 104 <https://doi.org/10.11622/smedj.2019018>

Dear Sir,

I carefully read the paper entitled “Prevalence and correlates of diabetes mellitus and dyslipidaemia in a long-stay inpatient schizophrenia population in Singapore” by Shafie et al.<sup>(1)</sup> Although I acknowledge the efforts of the authors, I found statistical errors in the article that I would like to bring to their attention.

The authors wrote that “*the OR (odds ratio) might have been inflated*”, referring to the ORs that predicted diabetes mellitus in some ethnic groups. However, the ethnic differences in diabetes mellitus prevalence in the general population, as mentioned in the study, were not proportional to the inflated OR of diabetes mellitus associated with ethnicity. The reason behind that is ‘separation in logistic regression’, which occurs when a rare outcome is investigated, in this case the sample of inpatients with schizophrenia, with or without diabetes mellitus. Additional factors were the small sample size and the highly correlated covariates.<sup>(2)</sup> The authors neglected to examine the collinearity of obesity with the different ethnic groups.<sup>(3)</sup> It is possible that the Indian and Malay patients in the study had significantly higher obesity and/or central obesity measures than the Chinese patients.

Although waist-to-height ratio, waist circumference and waist-hip ratio represent the best predictors of cardiovascular risk mortality,<sup>(4)</sup> these were not measured in the study. Furthermore, earlier research discouraged the use of body mass index as a predictor because it does not consider the distribution of abdominal fat, which affects organs such as the heart in terms of cardiometabolic risk.<sup>(4,5)</sup> Lastly, I noted that the results for the antipsychotic medications in the logistic regression model were, astonishingly, not significant. This could be a result of using ‘typical high’ as a reference category, then comparing the other five groups against it. If the study had used ‘atypical low’ as the reference category and aggregated all the other categories against it, the results may have been significant.

Yours sincerely,

Mustafa Afifi<sup>1</sup><sup>1</sup>College of Health Sciences, Jumeira University, United Arab Emirates. [affidr@gmail.com](mailto:affidr@gmail.com)**REFERENCES**

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