Prevalence of Depression among Oman Medical Specialty Board Residents

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Dear Editor,

I read with great interest the paper published by Al-Houqani et al,[1] in the March 2019 issue of the *Oman Medical Journal*,[1] which investigated the prevalence of depression among Oman Medical Specialty Board residents. The results indicated that the prevalence of depression was 28.8%, and the correlates were gender, level of residency, sleep duration, and exercise.

However, there are several scientific and methodological limitations casting suspicions on the validity of the study results and its interpretation. Firstly, the authors stated in the introduction: "there are no studies addressing depression among medical residents in Oman". In 2014, Al-Ghafri et al,[2] conducted a study to examine the diagnostic validity of the Patient Health Questionnaire-9 (PHQ-9) using an Omani medical resident population to establish a cut-off point.[2] Secondly, the cut-off score used to define depression is not valid in the study. The cut-off score of 12, rather than the employed 10, on the PHQ-9, has a sensitivity of 80.6% and a specificity of 94.0% for detecting the presence of depressive symptoms.[2] Hence, the authors should have considered using 12 as a cut-off to ensure the diagnostic validity of the PHQ-9 among their study sample.

Thirdly, the authors did not consider factors associated with depressive symptoms such as chronic diseases and stressors. Statistically and since those factors were not included in the study questionnaire, they cannot be called confounders. They might be called other explanatory variables.[3] In fact, the possible confounders in the study are one or more of the associated factors resulted from the univariate analysis namely; gender, level of residency, sleep duration, or exercise. To decipher the true independent variables and to adjust for potential confounding factors, the authors could have performed binary logistic regression analysis. Taking together, one could not interpret an association between exposure and outcome variables depending merely on univariate analysis.[4]

REFERENCES

1. Al-Houqani F, Al-Mukhaini A, Al-Kindi R. Prevalence of depression among Oman Medical Specialty Board (OMSB) residents. Oman Med J 2020 Apr;35(2):e116.

2. Al-Ghafri G, Al-Sinawi H, Al-Muniri A, Dorvlo AS, Al-Farsi YM, Armstrong K, et al. Prevalence of depressive symptoms as elicited by Patient Health Questionnaire (PHQ-9) among medical trainees in Oman. Asian J Psychiatr 2014 Apr;8:59-62.

3. Frank KA. Impact of a confounding variable on a regression coefficient. Sociol Methods Res 2000 Nov;29(2):147-194.

4. Sharpe D. Chi-square test is statistically significant: now what? Pract Assess, Res Eval 2015;20(1):8.

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