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LETTER TO THE EDITOR

Comment on: Prevalence, Risk Factors and Assessment of Depressive Symptoms in Patients With Systemic Sclerosis

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Dr. March et al.[1] administered the Major Depression Inventory (MDI) to 94 systemic sclerosis (SSc) patients and reported that "the prevalence of depressive symptoms" based on MDI scores of ≥20 was 22.3%, which they described as "high prevalence". Self-report symptom questionnaires like the MDI, however, are not designed to ascertain case status or estimate prevalence and should not be used for this purpose.

Members of our team published studies in 2007-2008 that used questionnaires for this purpose.[2,3] However, since then we have demonstrated that depression symptom questionnaires tend to overestimate prevalence, sometimes substantially.[4,5] This is because cutoffs on depression screening questionnaires are typically set to cast a wide net and identify a pool of people who may have depression - but not to ascertain case status. The degree to which estimates of prevalence generated from questionnaires may overestimate depression depends on the questionnaire and cutoff used. Nonetheless, as an example, for the commonly used nine-item Patient Health Questionnaire (PHQ-9) and a standard cutoff of ≥10, sensitivity and specificity are 88% and 85%, respectively.[6] Thus, a "prevalence" of 15% would be generated even if there are no participants with depression. Illustrating this problem further in SSc, Jewett et al.[7] reported that the 30-day prevalence of major depressive disorder among 345 SSc patients based on a validated diagnostic interview was 3.8%. However, based on the PHQ-9, which was administered simultaneously, and a cutoff of ≥10, the rate was 27%,[6] more than seven times the actual prevalence.

The MDI has been used mostly among patients with depressive disorders or those suspected of having depression, and no large primary studies or systematic reviews have established its accuracy for screening or identifying case status among non-psychiatric populations, as used in the study by Dr. March et al.[1] Thus, it is not known how the percentage of participants with scores of 20 or greater would relate to the percentage who might have a depressive disorder.

Labeling the percentage of patients who score above a threshold on a self-report questionnaire as "prevalence of depressive symptoms" rather

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than depression does not solve the problem. Labeling this as prevalence still clearly indicates that there is some entity that exists and begins at that threshold. However, there is no evidence showing that any cutoff on the MDI separates people into those with significant impairment and those without, which is the purpose of diagnosis. Second, if the objective is simply to identify a threshold where symptoms are present and greater than those below the threshold, any cutoff could be used, rendering any given threshold meaningless in terms of "prevalence".

It is likely the case that people with SSc are more likely to have depression than people without the disease. The percentage reported in the study by Dr. March et al.,[1] however, does not allow us to draw conclusions about the degree that this may be the case.

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