Letters to Editor

Comments on “Leisure Time Physical Activity and Risk of Developing Depression among the Youth of Kangra District, Himachal Pradesh, India”

Sir,

Singh et al.[1] studied the association between leisure-time physical activity and the cross-sectional prevalence of depression among the youth of Kangra district in Himachal Pradesh. Although this was a prospective study, they used only a single measure of physical activity and only a single measure of depression, and they examined very few confounding and mediating variables. Given that the association between physical activity and mental health has been known for decades,[2,3] their study breaks no new ground.

Curiously, although they sampled adults, they administered the Center for Epidemiologic Studies Depression Scale for Children. Besides being inappropriate for adults, this instrument has not been validated in the Indian population, and there is no support for the validity of the score used to define caseness in the Kangra sample. This scale has also been criticized for being non-specific, with ill-defined cut-off values.[4]

Further, by excluding persons with diagnosed mental health problems, the authors might have excluded depression, which was the very outcome that they sought to identify using their screening instrument.

Finally, they operationalized leisure-time physical activity and depression scores as categorical variables instead of as continuous variables; categorization of continuous data in statistical analysis has many limitations and should not be performed unless there are specific reasons to do so.[5,6]

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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Authors’ Responses to the Comments on “Leisure Time Physical Activity and Risk of Developing Depression among the Youth of Kangra District, Himachal Pradesh, India”

Sir,
We thank Suhas et al.\textsuperscript{[1]} for their interest in our article.\textsuperscript{[2]} The authors of the letter have used the term “prospective study,” which does not seem appropriate to us. Although the characteristic or exposure (leisure time physical activity) is being studied at the time of the study, it becomes a cross-sectional study.

Their critical comment on using less number of confounders is valid. However, it is important to note that the setting where the study participants were approached was in itself a limitation because of which the socio-demographic details of the family cannot be elicited. We agree that the study breaks no new grounds in the field of studies on physical activity and mental health, but the majority of studies have been conducted in a socio-cultural environment different from India, especially this part of the country (sub-Himalayan region). Factors affecting mental health differ in different settings. Hence, to proceed with any intervention, we needed a ground work on the same in this region. Therefore, to that extent, this study is a useful addition to the medical literature.

We also agree that the scale has not been validated for our country and that different cut-offs have varying sensitivity and specificity. The shorter version (10-item scale) is generally used for late-life depression.\textsuperscript{[3]} We intentionally used the original scale to introduce all the items to the study participants. The primary reason for doing this was that this study would serve as a base for further validating the scale in our settings.

According to the authors of the letter, the participants with depression should not have been excluded from the study. We, however, differ from this statement as the chronic morbidity and mental illness of any type will skew our data toward depression, giving a false result in favor of increased depression. Our objective was to study an apparently healthy population. The categorization of physical activity and depression scores was done to compare the results with other studies. However, we presented the mean scores of depression scale score in our results. We do agree that categorization of continuous variables may increase the possibility of type two error.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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