Letter to the editor concerning: Prevalence and Predictors of Adolescent Idiopathic Scoliosis in Adolescent Ballet Dancers

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Dear Editor,

We compliment Longworth and colleagues (1) for their paper that we read with interest and would like to comment on. Recently, we published a paper that applied a similar methodology, and showed an association between swimming, spinal deformities and low back pain (2). Even though we used a cut-off of 7° Bunnell that is usually applied in the most selective school screening (3), we did not report any association between scoliosis and swimming, since we did not perform radiography to confirm the diagnosis. We called these findings 'trunk asymmetries'(4). We think that this should be the case also in this study about dance.

Applying a cut-off of 5° Bunnell in our study we found 43% with an ATR equal or larger in the control group which was taken from school. This is much larger than the 3% found in the control group in the present study and could be explained by the small sample size. Also, the age range (10-18 years) was quite large. 5° Bunnell of ATR are not so relevant when a girl is 18, but can signify a risky condition at 10-12 years. Therefore, we suggest focusing on a narrower age range.

There are also some concerns about sampling: the use of a flyer to recruit such a small study group could introduce a selection bias; also, the control group runs a similar risk, because we cannot be sure that this small population is really representative of the target population. Moreover, the population is really small for a disease that has a prevalence of 2-3% in adolescents, even if a sample size calculation has been made. In our view, a larger study with a control group more representative of the general population should be undertaken to confirm these interesting but still preliminary data.

In conclusion, even if the data are in line with those of other studies about sports with similar features (5,6), we wonder how far these findings are due to a selection bias.

We would be grateful if we could have more information and comments from the authors.

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