



Comments on Paper Published in IJPH as “Factors Associated with Physical Activity among Macedonian Adolescents ...”

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Dear Editor-in-Chief

We were interested to read the paper by Gontarev S and colleagues that published in the Apr 2016 issue Iran J Public Health (1). The authors aimed to evaluate the effect of demographic, psychological, social and environmental factors with physical activity among Macedonian adolescents from Albanian ethnic community from 11 to 14 yr. the analysis was compared between male and female gender. Their study have demonstrated that mean (SD) of physical activity in male and female were 2.95 (0.67) and 2.75 (0.65), p-value<0.001 respectively (1)

Although the statistical method is correct and data are interesting but some methodological and statistical issues should be considered to avoid misinterpretation. Although the mean difference of physical activity between male and female was statistically significant but it is important to emphasize that clinically this mean difference is nothing and clinically negligible. Clinically importance and statistically significant are two differently concepts and as a rule of thumb, clinical importance takes priority over statistical significance. Large ample size, big difference between two means and high variation of the variable in the study population can easily change p-value from non-significant to significant (2).

As the authors point out in their conclusion, Boys unlike girls show significantly higher levels of physical activity, readers should consider the clinical judgments in interpreting of results.

References

1. Gontarev S, Kalac R, Ameti V, Redjepi A (2016). Factors Associated with Physical Activity among Macedonian Adolescents in Albanian Ethnic Community. *Iran J Public Health*, 45(4):474-84.
2. Steyerberg E (2008). *Clinical prediction models: a practical approach to development, validation, and updating*. Springer Science & Business Media.

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Dear colleagues

First, I would like to thank you for the constructive remarks. I fully agree with you that the clinical significance is more important than the statistical one. However, the primary aim of this paper was to determine the influence of demographic, psychological, social and environmental factors with physical activity among Macedonian adolescents from Albanian ethnic community. The comparative analysis on the level of physical activity was a secondary aim. The conclusion that boys are physically more active than girls was not

made only on the basis of the instrument Physical Activity Questionnaire (Elementary School), which actually just differentiates the examinees - who are less and who are more active, and which cannot determine the percentage of the examinees who have recommended physical activity. This paper was a part of a bigger project researching the physical activity in all ethnical communities in Macedonia for which, apart from the above mentioned instrument, we have used few more instruments for assessment of physical activity, such as IPAQ. We also used Actigraph for a smaller number of examinees (80). Both instruments showed that a much higher percent of boys has recommended physical activity, unlike girls. It is our mistake that we have not mentioned these two instruments in the paper. By the way, we have decided for the instrument Physical Activity Questionnaire (Elementary School) since it proved to be the most valid, i.e. it determined the highest correlation, in comparison with the Actigraph.

We have read the book you have indicated and I think that it will be very helpful for my future researches.

Seryozha Gontarev