Author’s response to reviews

Title: Relationship between lower-extremity defects and body mass among Polish children: A cross-sectional study.

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Dear Editor,

below please find our point-by-point response to each of reviewers points raised.

First of all I would like to sincerely thank for such full reviews and the amount of work that both of the reviewers dedicated to our paper.
Reviewer 1 (Lin Wang)

- the title was changed as recommended by the reviewer "Relationship between lower-extremity defects and body mass among Polish children: A cross-sectional study"

- Methods in the abstracts were reinforced by adding information about assessment methods and statistical methods (page 2 lines 11-19)

- Several elements in the background of the study were added about the issue and importance of this problem (page 3 line 21-24, page 4 line 1-10).

- Additional information about the previous results was added (page 4 line 13-23, page 5 line 1-7)

- We stated the research gap (page 5 17-18)

- We have compared our population to the one from previous studies as recommended (page 10 line 16-24). It is worth noticing that we couldn’t always compare to other studies in the issue of BMI because of different cut-offs but also some of the study do not have a population based sample

- We have changed the risk to relationship as recommended in the aim of the study (page 5, line 19-21)

- The method section was rewritten in the recommended (page 5 line 23 till page 8 line 11)

- Table 2 was changed. As we wrote all the detailed methods in the text we changed the table 2 to present the data on obesity/overweight prevalence and sex differences as also recommended by the reviewer

- Detailed information about methods used to assess the postural defects were added (page 7 line 17 – page 8 line 8)

- We have added information about the anthropometric measurements of the underweight, normal weight, overweight, and obese groups in the results section and table 2. (page 9 line 4-8)

- We have leaved all the categories of underweight as we wanted to be consistent to the IOTF cut-offs.

- We have added the comparison of different weight and sex groups from our study in the results section (page 9 line 9-20)

- The table will be presented in this place in the text.
In the discussion we have added a section about the possible background of the difference (including different methods, prevalence of obesity, difference in age and development of the examined population) (page 10 line 15 – page 12 line 19).

Sentence from lines 33-34 was deleted

The difference between lower-extremity defects and postural defects is that postural defects include also trunk and upper limbs defects. We have changed that in the text to be more consistent and clear.

The last sentence from the conclusion was changed (page 15 line 15-18)

the abbreviations are required by the editorial rules even if the abbreviation is used only once.

Thank you for your review!

Reviewer 1 (Angela Evans)

This article was not early reviewed by specialist. The previous review was only a technical one made by the editorial office

The paper was re-sent to the proofreader with the request of further language clarification

We have separated the studies of children from those from adults in the background (page 3 line 13 – page 4 line 10)

We have add the information about difference in children depending on age and development in the results (page 10 line 18-21)

The details about the age were delayed (page 6 line 13-19)

Frankfurt plane is a position of head, used in polish and European terminology. It is a position of the human skull, based on a plane passing through the inferior margin of the left orbit and the upper margin of each ear canal or external auditory meatus.

Details about the assessment methods were added (page 7 line 17 – page 8 line 8)

Information about who examined the children was added.(page 8 line 9-11). Why did not assess the inter-rater consistency as those where only three teams – trained together and working together (in different sets for years). It was also mentioned in the limitations of the study (page 15 lines 1-5)
• Girls and boys were compared both in text (in results and in discussion) and in table 4

• We have changed all “deformities” to “defects” in the whole text. We assessed the defects according to the set of criteria. The “defects” was used according to previously published studies.

• All the used methods to assess all postural defects are shown now in the methods section (page 7 line 18 – page 8 line 8). Based on the results we assessed if the result is within the normal range or is it a postural defect.

• Table 2 was changed, as all methods are shown in text, we added table 2 with BMI information for the group.

• Table 3 shows aggregated prevalence of postural defects. We have added the information on the number of children without any defects. In our opinion adding information about normal values to table 3 would make the table illegible.

• We did not separate the data on age and sex for the participant age as we treated the cohort as one group. In our testing the number of children aged 8 and 12 was not big enough in comparison to children aged 9,10,11 to be assessed independently. Additionally we wanted to focus more on the weight than on age.

• Regarding tables 4,5,6. We include the criteria in the text. All the tables were created on basis of those criteria.

• In our study we performed only screening static assessment with no assessment of gait or future symptoms. In the background and discussion we referee to those few previous studies showing the possible future complications. We did aggregate symptoms and they were reported in child documentations and if needed referred to a specialist.

• We have added additional discussion and limitations of the study regarding methods used. (page 14 line 20- page 15 line 13)

• The year in ref. 25 was added.

• Thank you for encouragement and constructive critique about the designe of the study as we are planning a future study – most of the assessed children was/will be reassessed in the age of 14 and 18 and this will give ass additional longitudinal information about the importance of ll defects. We will rethink the methods used, although some of them are “given” by the standard protocol recommended by polish ministry of health in screening of school children.

Once again thank you kindly for reviews.

Michal Brzezinski
on behalf of the authors