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Assessment of the doctoral dissertation presented by Shuai Guo

Beyond the healthy physical activity – sociocultural attitudes toward the body and the level of involvement in physical activity in young people brought up in Asian and European cultures:

Chinese-Polish comparison

prepared in the Gdansk University of Physical Education and Sport supervised by prof. dr hab. Bernadetta Izydorczyk

This revision was prepared based on Resolution No. 8 of the Scientific Council of Gdansk University of Physical Education and Sport in Gdansk (September 19, 2023)

The doctoral dissertation submitted for evaluation is a scientific achievement in the form of a collection of published scientific papers under the common title "Beyond the healthy physical activity – sociocultural attitudes toward the body and the level of involvement in physical activity in young people brought up in Asian and European cultures: Chinese-Polish comparison".

Article 1:

Guo, S., Izydorczyk, B., Lipowska, M., Kamionka, A., Lizińczyk, S., Sajewicz-Radtke, U., Radtke, B. M., Liu, T., & Lipowski, M. (2023). Socio-cultural attitudes toward the body as a predictor of motivation for physical activity in young people brought up in Asian and European culture-Chinese-Polish comparison. BMC Sports Science, Medicine and Rehabilitation, 15(1), 52. https://doi.org/10.1186/s13102-023-00662-y

Article 2:

Guo, S., Izydorczyk, B., Lipowska, M., Lizińczyk, S., Kamionka, A., Sajewicz-Radtke, U., Radtke, B. M., Liu, T., & Lipowski, M. (2023). Sociocultural predictors of obligatory exercise in young men: A Polish-Chinese comparison. Frontiers in Psychiatry, 14, 589. https://doi.org/10.3389/fpsyt.2023.1123864

Article 3:

Guo, S., Kamionka, A., Izydorczyk, B., Lipowska, M., Lizinczyk, S., Radtke, B. M., Sajewicz-Radtke, U., & Lipowski, M. (2023). The mediating role of eating attitudes in sociocultural attitudes toward the body in predicting obligatory exercise among young people: a Polish and Chinese comparison. Nutrients, 15(4), 952. https://doi.org/10.3390/nu15040952

Formal assessment of the dissertation

Research on body image, physical activity, exercise dependence, and eating disorders is important from the perspective of human behavior understanding, health protection and psychology. Although the research is common, it requires further exploration. Cross-cultural comparative studies, like the one presented in this doctoral dissertation, are relatively limited. Therefore, I find the research problem undertaken by the PhD candidate to be original.

The dissertation is based on three published scientific papers. The structure of the dissertation is standard and contains: list of scientific publications constituting the doctoral dissertation, abstract, introduction, research objectives and questions, research procedure, results, limitations and future directions, and conclusions. Then we can find references, list of tables and figures, statements of the authors' contribution, curriculum vitae and printouts of publications included in the doctoral dissertation.

In my opinion the topic of the PhD dissertation has been formulated correctly. There is no discussion section that would demonstrate the PhD candidate maturity in analyzing the obtained results and formulating conclusions. We can find discussions only in three published papers.

Content-related evaluation

In the Introduction section PhD candidate presented state of art concerning physical activity and health, motivation for physical activity, and obligatory exercise. I would like to underline that introduction in the doctoral dissertation and introductions especially in the three published papers are very well written, based on current literature, and including appropriate theories.

Some comments are needed regarding the research objectives and questions. In the main aim of the study PhD candidate used the phrase "unhealthy physical activity". In my opinion it does not sound good. How is it defined? Does the PhD candidate mean to use "unhealthy physical activity" and "obligatory exercise" as synonyms? This needs clarification. In the first research question "Is there and what is the relationship between the sociocultural attitudes toward the body and the physical activity undertaken by young Poles and Chinese?", "motivation for physical activity" should be used instead of "physical activity". The level of physical activity was not assessed in the study. I am wondering why physical activity level were not assessed in these studies. It would enrich the research model and the obtained research results.

There is no consistency in the second research question. In the Obligatory exercise section the PhD candidate has written: "In the current study, obligatory exercise was considered the most appropriate term", so obligatory exercise instead of exercise addiction should be used in the second research question.

Theoretical model of the research variables presented in the Figure 1 is clear and allows the readers to understand the study design better.

In the study, participants aged 18-30 years from Poland and China were included. It was

planned to invite from 300 to 800 participants in the study. I have some questions which should be answered. 1) How were the sample sizes calculated? 2) Why are there differences in the number of participants when comparing three studies presented in three articles? Why were only men included in the study presented in Article no. 2? I know that PhD candidate pointed that the sample size is relatively small for a cross-cultural study as limitation of the studies. I am wondering if it was possible to do one study that includes the variables examined in all the papers with appropriate sample size?

I highly evaluate the choice and description of the questionnaires used in the study, which have Polish adaptation or were translated with appropriate procedure. In the doctoral dissertation and in the three scientific paper advanced statistical analysis were performed. Description of the statistical methods is on the high level. As the consequence, results are presented in the clear way. I particularly appreciate the results obtained in Paper No. 3 (The Mediating Role of Eating Attitudes in Sociocultural Attitudes toward the Body in Predicting Obligatory Exercise among Young People: A Polish and Chinese Comparison).

Because the study sample was aged 18-30, probably students and individuals who finished education were included in the study. I am wondering if there was difference between these two age groups, taking into consideration sociocultural aspect. I would like to know the opinion of the PhD candidate in this subject.

Doctoral dissertation is prepared based on three, high quality papers. In each article PhD candidate with co-authors have written appropriate discussion. In my opinion, discussion covering all three research and obtained results is also necessary in the doctoral dissertation. Conclusions are presented in the last paragraph of the Conclusions section and they are well formulated. Repeating the study results in this section is unneeded. Because of the relatively small sample size, generalization of the obtained results should be done with caution.

I appreciate that the PhD candidate is the first author in all three scientific papers and according to included statements of all authors the contribution of PhD candidate in each publication is 60%. All three articles are published in high-quality journals. I believe that cooperation of Shuai Guo with co-authors, who comprise a professional research team, contributed to the scientific development of the PhD candidate.

Final conclusion

The PhD dissertation submitted for my review is an original work. Presented findings broaden the scientific knowledge in the field of research on body attitude, physical activity and eating disorders and have practical implications. I highly appreciate the quality of the prepared doctoral dissertation. My comments do not diminish its value.

I therefore request the High Scientific Council of the Gdansk University of Physical Education and Sport to admit Shuai Guo to further stages of the doctoral procedure.

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