

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Identifying Factors Associated with Overweight and Obesity among Intermediate School Students Aged 12-15 Years in School Settings: Mixed Methodology Protocol
AUTHORS	Almutairi, Naif; Burns, Sharyn; Portsmouth, Linda

VERSION 1 – REVIEW

REVIEWER	Kowal, Malgorzata Univ Sch Phys Educ Krakow
REVIEW RETURNED	23-Nov-2020

GENERAL COMMENTS	Overweight and obesity have become a growing health problem in the last few decades of inhabitants in developed and developing countries and it has also become one of the leading causes of their premature deaths. Hence, it is so important to research the causes of the increase in the prevalence of overweight/obesity and to initiate programs to prevent this phenomenon. The authors of the protocol plan to investigate the prevalence of overweight and obesity among children and adolescents in Saudi Arabia and to show the most significant changes in lifestyle that have caused a sharp increase in the number of people with excess body weight. The research scheme presented in the Protocol seems to be correct, and the results obtained in this way should fully answer the research hypotheses posed in the task. The planned sample size may raise doubts. In my opinion, a little more schools should be included in the research, since their total number was almost 300. To assess youth physical activity, I would also suggest using an international questionnaire such as MAQ (it is used to evaluate activity during the last year) or LOPAR (it is used to evaluate activity during the last week).
-------------------------	---

REVIEWER	Lavie, Carl The University of Queensland School of Medicine
REVIEW RETURNED	02-Dec-2020

GENERAL COMMENTS	The study is clearly described and the 3 parts are well-detailed, and this should certainly yield publishable results. My overall feeling, however, is that it will not be highly impactful and the authors could make a stronger case on the application potential for their results.
-------------------------	--

VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

- While we agree that it would be useful to collect more data, however the sample calculation we have provided indicates that our sample is sufficient. This study is a PhD study, hence we also need to recognise the resources available to collect these data.

- Thank you for your recommendations. In our development of the questionnaire we reviewed numerous surveys and have selected physical activity items that have been validated with children and adolescents. These tools have been developed and validated in Malaysia, Denmark and Australia specifically with school aged children and adolescents. The survey will undergo validity and reliability testing. Specifically the survey will undergo face and content validity to determine if the content of the survey is appropriate and importantly if the language is appropriate for KSA children and adolescents. The discussion we have been able to find around the MAQ and LOPAR are that they are both designed for adults (for example, Strath et al. 2013).

Reviewer 2:

The study provides an opportunity to inform whole school-based interventions in KSA. To-date there is little evidence of the implementation of whole school interventions to address obesity prevention in KSA. This study will made recommendations and findings will be used to advocate for change. The tools developed (student survey and AUDIT tools) will be made available to schools to enhance their school-based planning.

We have added the following:

-Strengths and limitations (page 3)

The validated student survey and whole school Audit tools will be enhance school-based planning.

A review of the published literature has indicated that this will be the first mixed methods study to collecting data from students and teachers to specifically inform the development of whole school interventions and policy focusing on obesity preventions. Findings will inform school-based interventions in KSA.

-Ethics and dissemination section (page 14):

This study provides a unique opportunity to inform school-based interventions in KSA. Recommendations will be made to the KSA Ministry of Education regarding the implementation of whole school interventions. Findings will be used to advocate for school-based curriculum and policy change at a National level. The tools developed, and the learnings from the study will be made available to individual schools to support school-based planning.

VERSION 2 – REVIEW

REVIEWER	Kowal, Malgorzata Univ Sch Phys Educ Krakow
REVIEW RETURNED	01-Mar-2021
GENERAL COMMENTS	I recommend the article in its current form for publication.