Reviewer’s report

Title: The association of physical activity, body mass index and the blood pressure levels among urban poor youth in Accra, Ghana.

Version: 2 Date: 6 December 2014

Reviewer: William Bosu

Reviewer’s report:

Introduction

The authors have successfully revised the paper in line with most of the comments raised. However, a few important suggestions have not been addressed.

Minor comments

1. Some typos – revise “adolescence” to “adolescent” on line 48 or drop it all together to avoid repetition in that phrase; females youth; figures 1;
2. Grammatical revisions in terms of rendering sentences more naturally and harmonizing tenses remain. For example, line 176: “female youth constituted higher proportions of overweight and obesity compared with the male youth” gives the impression that the denominator is “overweight and obesity”. It could be rendered simply, “female youth were more likely to be overweight or obese than male youth” or “a higher proportion of female youth were overweight or obese than male youth”
3. Harmonize reference format in bibliography – issues numbers are provided for some articles (e.g. line 309) and not for others (e.g. line 312); full page numbers are provided from some articles (e.g. line 309) but not for others (e.g. line 328)
4. Still not addressed: Fig. 1 (line 194) should be cited in text before Figs. 2a & 2b (line 191)

Major comments

1. There are some inaccurate statements (line 72-74) that should be reviewed
   a. Lines 79-80: the secondary reference on the ranking of hypertension has been misrepresented by the authors. The ranking refers to the Greater Accra Region and not Accra. The change in ranking did not occur in the same year (2007) as reported but rather from 2006 to 2007.

2. The classification of physical activity normally requires a combination frequency, intensity and duration. The use of frequency of leisure-based physical activity appears to impute intensity is confusing.
   a. The classification “vigorous physical activity” implies intensity even though it refers to self-report of undertaking of physical activity 5 or more times in the past
week in their free time (line 153), regardless of the type of activity.
b. “vigorous” be revised to “high” (to avoid confusion) to complement the “no”,
“moderate” categories
3. Persons in the study area as described as being “migrant” – engaged mainly in
fishing, petty trading and artisan work. Most of these occupational activities
typically involve manual work. And so to restrict the assessment of physical
activity only to that undertaken during “free time” will likely underestimate their
true levels of physical activity and thereby possibly exaggerate the effect size in
relation to hypertension. This may explain why 84% of the respondents were
classified as physically inactive (line 177).

a. This important limitation is acknowledged by the authors in their response but
it is somewhat weakly reflected in the text as:

“Also, there is a limitation with choosing leisure physical activity other than taking
into consideration other forms of physical activity which could have better
predicted the physical activity level of the respondents”.

b. The size and direction of potential bias are important to discuss to enable a
better analysis of the validity of the findings

**Level of interest:** An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being
published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'