

Peer Review Report

Review Report on Association between nutritional status and physical activity among reproductive age women in Arba Minch Health and Demographic Surveillance Site, Southern Ethiopia

Original Article, Int. J. Public Health

Reviewer: Titiksha Sirari

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EVALUATION

Q 1 Please summarize the main findings of the study.

A community-based cross-sectional study (n=422) using simple random sampling found that 65.9% of women had formal education, 43.6% of households experienced food insecurity, and 59.2% of women had good nutrition knowledge. The prevalence of underweight was 7.8%, and overweight/obesity was 12.3%. Multivariate multinomial logistic regression showed that physically inactive women were 2.8 times more likely to be overweight. The odds of being underweight were 9.7 times higher among women not using contraceptives and from food-insecure households were 3 time more vulnerable to being underweight. Women with formal education had increased odds of overweight/obesity while larger family size (≥ 5 members) was associated with decreased odds.

Q 2 Please highlight the limitations and strengths.

strengths: simple random sampling, Multivariate multinomial logistic regression to address confounders and use of standardised tools.

Limitation: The absence of expenditure or income data, despite mentioning economic characteristics in line 171, limits the analysis. Including such data could have provided valuable insights into the determinants of food insecurity, offering a more comprehensive understanding of its association with economic factors.

In line 41 of the introduction, the author highlights the association of sex discrimination with women's nutritional vulnerability but did not collect data on this during in-depth interviews. This omission limits the study's ability to explore a significant contributor to malnutrition, as such insights can only be captured through one-on-one in-depth interviews.

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

The abstract could briefly outline the variables included in the multivariate analysis. Additionally, instead of general statements like "efforts are needed," specify targeted interventions, such as improving education, promoting physical activity, or addressing food insecurity.

In the methods section, give an account of the actual field data collection process, as it is crucial for a community-based study.

The results section would benefit from a separate subsection dedicated to multivariate analysis for clarity and better organization. Additionally, the bivariate analysis of physical activity levels and nutritional status is missing and should be included to provide a more comprehensive understanding of these relationships.

In Tables 1 and 2, the author can provide the count and percentage in a single column only, which will enhance the readability of the tables.

The association between education and overweight/obesity is not discussed, despite most interventions in the conclusion being related to education and awareness. A more detailed discussion on this relationship is needed.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

"Arba Minch Health and Demographic Surveillance Site, Southern Ethiopia" description of geographical area may be shortened

Q 5 Are the keywords appropriate?

contraceptive use may be added

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

No.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

ok

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Minor revisions.