Peer Review Report

Review Report on Prevalence of severe disability and its associated factors in Northwestern Ethiopia: Evidence from Dabat District of Amhara National Regional State

Original Article, Int. J. Public Health

Reviewer: Faiza Rab

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EVALUATION

Q 1 Please summarize the main findings of the study.

The review finds that while the background section provides useful context, it lacks clarity regarding the rationale for selecting Dabat as the study location. The objective of the study should be introduced at the end of the background to give clearer direction. In the methods section, the use of secondary data from the DHSS survey is not sufficiently explained, and there is some confusion surrounding the 2016 and 2018 surveys. Redundant information about households and Kebels should be streamlined, and there are minor issues with tense consistency and phrasing that need to be addressed. The data analysis section needs clarification, particularly in describing descriptive statistics and the use of odds ratios, and the rationale for including variables with p-values of <0.2 in multivariable analysis should be explained.

The results section includes important information but could benefit from better organization, starting with descriptive statistics and moving to associations. The distinction between "causes" and "factors associated with" disability should be clarified, as causality cannot be inferred from cross-sectional data. Tables could be combined for brevity, and percentages should be rounded for consistency. The figures also lack clear titles and axis labels, and it would be helpful to disaggregate data by age and sex. In the discussion, the authors should reconsider the comparison with previous studies, particularly Chala et al., which used similar methodology, and frame the differences more neutrally. The claims about the relationship between education and disability should also be revised to reflect the findings more accurately. Lastly, the conclusion, particularly recommendations for early intervention and healthcare improvement, should be revisited, as they are not directly supported by the study's results.

Details are available in the attached file.

Q 2 Please highlight the limitations and strengths.

Strengths:

Clear Research Focus: The study effectively addresses an important issue by investigating disability prevalence and its associated factors in a specific population, contributing valuable insights to the field.

Use of Established Datasets: The analysis utilizes large-scale, secondary data from the DHSS, which is a reputable source of information, ensuring that the findings are grounded in reliable data.

Comprehensive Data Collection: The study includes various sociodemographic characteristics, providing a broad understanding of disability prevalence across different groups, which enhances the depth of the analysis.

Strong Discussion and Implications: The discussion section is well-written, offering a thoughtful interpretation of the results and acknowledging the limitations, while suggesting directions for future research and policy improvement.

Limitations:

Lack of Justification for Study Location: The rationale behind selecting Dabat as the study site is not clearly explained, which weakens the understanding of its relevance to the broader research context. Unclear Data Sources: There is confusion regarding which specific dataset (2016 or 2018 DHSS survey) was used, and whether the data was collected specifically for this research, leading to some ambiguity in the methodology.

Causal Claims: The study often uses the term "causes" when referring to disability, despite the cross-sectional design that cannot establish causality. This could lead to overgeneralization of the findings.

Methodological Details: Some sections, such as the description of statistical analyses and the use of odds ratios, could benefit from more clarity and simplicity to avoid confusion.

Limited Generalizability: The choice of study location and reliance on secondary data may limit the broader applicability of the findings, and the study does not adequately address how these limitations affect generalizability.

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.

Detailed major and minor comments are in the file attached Major Comments:

The background section would benefit from further clarification regarding the selection of Dabat as the study location, as its relevance to the research needs to be more explicitly justified. Additionally, the study's objective should be introduced at the end of this section to guide the reader's understanding of the research focus. In the methods section, clearer explanations regarding the use of the 2016 and 2018 DHSS surveys are needed, particularly specifying which dataset was analyzed. The authors should also clarify whether the data was collected specifically for this study or used from existing surveys. The results section requires better organization, starting with descriptive statistics followed by associations. There is also a need for clearer distinctions between "causes" and "factors" related to disability, as causality cannot be established from cross-sectional data. Tables and figures should be revised for clarity, with improved labels and consistent use of percentages. The discussion should address prior studies more neutrally, avoiding unnecessary disparagement, and the conclusion should align with the study's findings rather than introducing recommendations not supported by the research.

Minor Comments:

There are several minor issues with spelling, such as "Disabailities" instead of "Disabilities," and tense consistency, especially in the use of past tense throughout the paper. Sentence structure in some sections, such as lines 34–36 and 164–166, requires revision for clarity and readability. The description of the odds ratios and statistical methods could be simplified for conciseness. There are also a few instances where terminology and phrasing could be refined, such as distinguishing between "multivariate" and "multivariable" regression and ensuring the consistent use of terms. Additionally, the authors should clarify the rationale for including variables with p-values less than 0.2 in the multivariable analysis. Finally, certain parts of the text, like the relationship between education and disability, need to be framed more accurately to reflect the results of the study without overstating the significance of certain associations.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

The title could be revised for better accuracy, as the results primarily focus on the prevalence of disability rather than its causes. It is recommended that the title be adjusted to reflect this by incorporating "Prevalence" instead of mentioning "Causes," which would more accurately represent the content of the study.

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Overall, the writing is satisfactory; however, there are a few spelling errors and inconsistencies in verb tense. These issues have been highlighted in the detailed review attached in response to the first question.

Q7 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?)

Overall, the literature review is sufficient, but it would benefit from a more in-depth exploration of similar studies conducted in the region. Additionally, many of the references are somewhat outdated, and the authors could strengthen their review by incorporating more recent studies. For example:

- 1. Tenaw Z, Gari T, Gebretsadik A. The burden of disabilities in Sidama National Regional State, Ethiopia: A cross-sectional, descriptive study. PLoS One. 2023 Jul 19;18(7):e0288763. doi:
- 10.1371/journal.pone.0288763. PMID: 37467216; PMCID: PMC10355417.
- 2.Takele, M.D., Eriku, G.A., Merawie, D.M. et al. Functional disability and its associated factors among community- dweller older adults living in Gondar Town, Ethiopia: a community-based cross-sectional study. BMC Public Health 24, 647 (2024). https://doi.org/10.1186/s12889-024-18110-y
- 3. Getachew, T., Mengistu, M., & Getahun, F. (2024). Prevalence of Visual Impairment and Associated Factors Among Older Adults in Southern Ethiopia, 2022. Clinical Optometry, 16, 1-16. https://doi.org/10.2147/OPTO.S440423

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:

Major revisions.