

Review of: "Prevalence of visual impairment and associated factors among welders in West Shewa Zone Oromia Region, Ethiopia"

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Potential competing interests: No potential competing interests to declare.

Comments for the authors!

The manuscript titled "Prevalence of visual impairment and associated factors among welders in West Shewa Zone, Oromia Region" effectively summarizes the main objective and population of interest, which is the prevalence and associated factors of visual impairment among welders. It provides a clear indication of the focus of the research.

The results presented highlight important findings from the study. The sample size of 634 welders provides a substantial amount of data for analysis. The mean age of the study participants is also mentioned, which gives some insight into the demographic characteristics of the sample.

The prevalence of visual impairment among welders is reported as 29.34% with a 95% confidence interval. This finding provides a valuable estimate of the burden of visual impairment within the population studied.

The study further identifies specific factors associated with visual impairment among welders. The absence of training on eye personal protective equipment use, prolonged working hours per day, and not using eye personal protective equipment are identified as significant risk factors. These findings highlight the importance of proper training and the use of protective equipment in preventing visual impairment among welders.

Could the authors address the following issues?

1. Authors' affiliations lack uniform expression.
2. The background section provides a general context for the study, highlighting the significance of visual impairment as a public health problem. However, it lacks specific information about the prevalence of visual impairment among welders or the factors contributing to it. It would be helpful to include some previous research findings to establish the need for this study. Suggested improvement: Provide specific data or studies that demonstrate the prevalence and impact of visual impairment among welders, both globally and in Ethiopia. This will help to emphasize the importance of studying this specific population.
3. Grammatical issues
4. The study area has already been mentioned elsewhere in the abstract. Therefore, it is recommended to avoid repetition and unnecessary redundancy in order to maintain conciseness and clarity in the presentation of the

abstract.

5. In the study setting and design, rather than mentioning the total population of the Zone, it is better to mention the total number of welders for determining the proportion with visually impaired welders.
6. The authors mentioned that they used cluster sampling. Cluster sampling can provide a representative sample if implemented correctly. In cluster sampling, the population is divided into clusters, and a subset of clusters is randomly selected for inclusion in the sample. Within each selected cluster, all individuals or a random sample of individuals are included in the study. So in the methodology, it is not clear how the process of sampling was done to ensure that the selection process is truly not by chance and representative. Cluster sampling helps to simplify the sampling process by reducing the number of sampling units, but it requires careful consideration of the sampling units or clusters to ensure representativeness. The choice of cluster size, number of clusters, and sampling within clusters should be determined.
7. The utilization of interviewer-based structured questionnaires and a Snellen chart for data collection is appropriate. However, it would be beneficial to mention any steps taken to ensure the reliability and validity of the instruments used, such as piloting or validation procedures.
8. The authors of the study are non-ophthalmic professionals; they used 5 ophthalmic nurses as data collectors, and their focus is on studying visual impairment specifically among welders. It may not be feasible or within their expertise to conduct detailed eye examinations to identify factors like diabetic retinopathy or amblyopia. In such cases, it is important for the authors to acknowledge the limitations of their study and the potential confounding factors that they may not have been able to assess. They can mention that the study focused on visual impairment related to welding and may not have captured other potential causes of visual impairment, such as pre-existing eye conditions or systemic diseases. However, it is still valuable for the authors to highlight the need for further research or collaboration with ophthalmic professionals to explore the potential contribution of these factors to visual impairment among welders. This can help guide future studies and interventions to address these additional causes of visual impairment in the welding population.
9. The authors said that the data collection tool was adopted from the World Health Organization (WHO) and related different literature. Could you give references for those mentioned literatures?
10. In the methodology, the authors mentioned that they got written informed consent, but in the consent for participation section, they said not applicable. How could you justify these scenarios?
11. The study was approved by the Institutional Ethics Review Board (IERB) of Gondar University, which is located very far away from the study area and located in another regional state. Ambo University and the study area are located in the Oromia regional state. So, how did you get access to the study area and the study population without getting ethical clearance from Ambo University IRB and consent from the Woreda authorities? Could the authors justify?
12. In the discussion, paragraph 4 “In my study, training on eye PPE used, ...) whose study is it?