

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

Sarang Dhatrak¹

¹ National Institute of Occupational Health

Potential competing interests: No potential competing interests to declare.

Title: Title is a misnomer; it may be changed to "Prevalence and Predictors of Visual Impairment Among Welders....."

General comment: "VI," an abbreviation for visual impairment, is still being used at some places; however, visual impairment is still being written. It is better to avoid the abbreviation for visual impairment.

Introduction:

Introduction should focus on the number of workers involved in welding.

In the introduction, ocular conditions other than visual impairment had been attributed to welding. The authors need to clarify why only visual impairment is being studied, leaving other conditions. These conditions could have been studied along with visual impairment, which would have made the study more robust scientifically.

Methods and Subjects:

Rather than mentioning the population of West Shoa Zone, the number of working units of welders and the number of workers involved in welding should have been mentioned. Details of sample selection should have been mentioned, whether it was random selection or purposive. The abstract mentions that a cluster sampling method was used, but it is not mentioned in the manuscript.

WHO criteria used for the classification of severity of vision impairment based on visual acuity should be mentioned in this section.

Results:

- Sample size calculated was 424; the reason for including 634 workers is not clear.
- If only one female was included in the study, she could have been excluded from the final analysis, as one sample will not be useful for analysis.
- Table should be restructured for age, e.g., 18-30 yrs, 30-50 yrs, and > 50 yrs; this may have distributed the samples proportionately.
- WHO mentioned that the measure of vision impairment typically reported in population-based surveys is based on visual acuity in the better eye of a person. Hence, the final result should be based on this principle. The result section, including table no. 5, depicts visual impairment on the basis of either the right or left eye. The table should indicate

visual impairment on the basis of both eye examinations.

- In this section, it is stated that out of 186 visually impaired welders, 42.47% stated that they had bilateral visual impairment and 57.53% had monocular. This sentence creates confusion; whether visual impairment is a subjective feeling?
- Why the variable "drinking coffee" is being used is not clear.

Discussion:

The study deals only with visual impairment and hence should be discussed in line with other research studies related to visual impairment, but in the discussion, studies like maculopathy, photokeratitis are being discussed, which may be deleted from the discussion.

Final Remarks:

The manuscript requires a lot of modification in terms of language; methodology and results need to be rewritten as per WHO criteria.