Engineering, Yeungnam University, Gyeonsang, Republic of Korea

[#]Equal contribution

[*]*For correspondence:* jitendrakumarsinha@gmail.com

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Authors' response

Sir,

Thank you for your interest in our article[1] published in the July 2024 issue of the Indian Journal of Medical Research. We appreciate your thoughtful comments regarding the importance as well as suggested limitations in relation to this paper.

The systematic household-based sampling method was randomized to exclude errors of sampling. Although, limitations, as indicated in the Letter to Editor[2], could be present, the investigators tried to be statistically precise to avoid such recruitment bias. Similarly, we would have liked to expand our sample size by including more sampling areas. However, keeping the statistical assumptions intact, recruitment was done only from two mining sites, which are representative of the whole population. The focus of the study was exclusively on workers engaged in mining, not on administrative and support staff who do not need to carry out mining work. Therefore, we had to exclude women and other staff as they were not engaged in mining. However, we appreciate the comment that problem areas regarding other mining staff need to be investigated.

Research staff were adequately trained to probe the identification of falsification of information regarding alcohol and other substance use by participants. ASSIST is an internationally validated screening tool for patterns of substance use and provides an accurate measure of patterns of substance use across gender, age and cultures[3]. We discussed about including biological measures for alcohol and other substance use, but the reported sensitivity and specificity of ASSIST were adequate for identification of the problem at primary care level and we, therefore, decided against using biological measures. The objective of this study was to identify the magnitude of the mental health problem among coal mining workers. Therefore, a cross-sectional design was chosen. The suggestion of a longitudinal study to identify causality is well accepted and shall help in further extrapolation of this study. Anxiety, depression and alcohol use disorders are the three commonest mental health problems, and all can initially be identified and managed at the primary care level. Therefore, we chose the three main problem areas as this population are underserviced and have little access to mental healthcare. As a consequence, we did not aim to include other, less common, mental health issues. However, we fully agree that non-inclusion of workplace conditions as predictors of mental health outcomes is a limitation of the study.

Regarding research ethics and informed consent, our research group have a track record of working with mental health issues among different age groups in lower socioeconomic conditions. Therefore, relevant ethical issues of justice and beneficence were duly addressed. Participants identified with 'high risk' alcohol and/or tobacco use and significant anxiety and/or depression were offered coordinated visits to the nearest secondary care treatment facility with mental health services. However, this component was not included in the manuscript, as their visits and outcome could not be monitored.

In conclusion, we appreciate the insights on the limitations of our study. Addressing these issues in future research would strengthen the conclusions and further enrich our understanding of common mental health issues including alcohol use disorder among underserviced populations of India including their causality, predictors and treatment approaches at the primary care level, thereby, further strengthening mental health services at the community level.

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***Use of Artificial Intelligence (AI)-Assisted Technology for manuscript preparation*:** The authors confirm that there was no use of AI-assisted technology for assisting in the writing of the manuscript and no images were manipulated using AI.

Amit Chakrabarti[1,*], Indranil Saha[1], Manoj Kalita[1], Debangana Bhattacharya[1], Bidisha Haque[1], Alisha Nagraj[1], Sovonlal Mukherjee[1] & Vivek Benegal[2]

[1]ICMR-Centre for Ageing & Mental Health (ICMR-CAM), Kolkata & [2]National Institute of Mental Health & Neurosciences (NIMHANS), Bengaluru, India

[*]*For correspondence*: amit.chakrabarti@gov.in

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