

Global Prevalence of Anemia among Adolescent Tribal Girls: A Systematic Review and Meta-analysis

Litna George¹, Kumari Asha Kiran², Neelam Nalini³, Manisha Kujur⁴

¹Lecturer, College of Nursing, Rajendra Institute of Medical Sciences (RIMS), ²Additional Professor, ⁴Associate Professor, Department of Community Medicine, Rajendra Institute of Medical Sciences (RIMS), ³Professor, Department of Obstetrics and Gynecology, Rajendra Institute of Medical Sciences (RIMS), Ranchi, Jharkhand, India

Litna George, Kumari Asha Kiran, and Neelam Nalini contributed equally to this work and share first authorship.

Summary

Background: Anemia among adolescent Indigenous girls remains a major public health concern worldwide, yet evidence in this area is limited. **Objectives:** This systematic review and meta-analysis aimed to find out the global prevalence of anemia among adolescent Indigenous girls. **Materials and Methods:** A comprehensive literature search was conducted by using predefined Medical Subject Headings in PubMed, Google Scholar, Cochrane Library, and Clinical Key. This meta-analysis included cross-sectional studies published in English between 2014 and 2024 and conducted among Indigenous girls aged 10–19 years. Data extraction was independently performed by two reviewers using Rayyan software, and the study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Meta-analysis of Observational Studies in Epidemiology (MOOSE) guidelines. A random-effects model was used to estimate the pooled prevalence. A total of nine studies were incorporated with a sample size of 1,299 samples from a total of 395 studies. **Results:** The pooled findings demonstrated a high burden of anemia among adolescent Indigenous girls, with an odds ratio of 0.82 (95% CI: 0.74–0.90). **Conclusion:** The results highlight a substantial global prevalence of anemia in this vulnerable population and underscore the urgent need for context-specific anemia prevention and control strategies targeting adolescent Indigenous girls.

Key words: Adolescent, anemia, prevalence, systematic review and meta-analysis, tribal girls