Prevalence of Visual Impairment among School Children in Ethiopia: A Systematic Review and Meta-Analysis

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Abstract: Introduction: Visual impairment is any condition of the eye or visual system that results in loss/reduction of visual functioning. It significantly influences the academic routine and social activities of children, and the effect is severe for lowincome countries like Ethiopia. So, this study aimed to determine the pooled prevalence of visual impairment among school children in Ethiopia. Methods: Databases such as Medical Literature Analysis and Retrieval System Online, Excerpta Medica dataBASE, World Wide Web of Science, and Cochrane Library searched to retrieve eligible articles. In addition, Google Scholar and a reference list of the retrieved eligible articles were addressed. Studies that reported the prevalence of visual impairment were included to estimate the pooled prevalence. Data were extracted using a standardized data extraction format prepared in Microsoft Excel and analysis was held using STATA 11 statistical software. I2 was used to assess the heterogeneity. Because of considerable heterogeneity, a random effect meta-analysis model was used to estimate the pooled prevalence of visual impairment among school children in Ethiopia. Results: The result of 9 eligible studies showed that the pooled prevalence of visual impairment among school children in Ethiopia was 7.01% (95% CI: 5.46, 8.56%). In the subgroup analysis, the highest prevalence was reported in South Nations Nationalities and Tigray region together (7.99%; 3.63, 12.35), while the lowest prevalence was reported in Addis Ababa (5.73%; 3.93, 7.53). Conclusion: The prevalence of visual impairment among school children is significantly high in Ethiopia. If it is not detected and intervened early, it will cause a lifetime threat to visually impaired school children, so that school vision screening program plan and its implementation may cure the life quality of future generations in Ethiopia.

Keywords: visual impairment, school children, Ethiopia, prevalence

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