

Effectiveness of school vision screening programs in reducing uncorrected refractive error among children in low and middle-income countries- Systematic review

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Abstract

Purpose: To assess the effectiveness of school vision screening programmes in reducing uncorrected refractive error among children in LMIC. **Search Methods:** A comprehensive and systematic search strategy was employed. Various databases were searched, and the search was restricted to articles published in English. Participants included school children with refractive error. Full-text review of search results, data extraction and risk of bias assessment was done by two independent reviewers. The certainty of the evidence was assessed using the GRADE approach.

Result: Thirty studies met the inclusion criteria. This review found moderate certainty evidence indicating that school vision screenings may be effective in reducing uncorrected refractive error among school children by 81%, 24% and 20% at two, six, and more than six months respectively after its introduction. Results of this review also suggest that school vision screening may be effectiveness in achieving 54%, 57%, 38% and 41% spectacle wear compliance among school children at less than three months, at three months, at six months and at more than six months respectively after its introduction (low to moderate certainty evidence). This review further found moderate to high certainty evidence indicating that school vision screenings may be relatively cost effective, safe and has a positive impact on the academic performance of school children. **Conclusion:** Result of this review shows that school vision screenings of may be a safe and cost-effective way of reducing the proportion of children with uncorrected refractive error with long-term positive impact on academic performance of children.

Biography:

Abraham Opare is an Optometrist who completed his Doctor of Optometry degree in 2016 at the Kwame Nkrumah University of Science and Technology (Kumasi-Ghana) and Master of Public Health degree, specializing in community eye health at the University of Cape Town in 2019. He is currently enrolled for his PhD in Public Health at the University of Cape Town and works as a part-time research assistant at the centre for infectious disease epidemiology and research. He has special interest in refractive error and infectious eye disease research. Abraham has one peer-reviewed publication to his credit.

Speaker publications:

1. "Prospero International prospective register of systematic reviews The effectiveness of school vision screening programmes in Africa for reducing the proportion of children with uncorrected refractive error"
2. "Ocular Morbidity among Auto Mechanics at Suame – Magazine Area in the Kumasi Metropolis"
3. "Peripheral Refraction in Myopic Adults with Positive and Negative Parental History of Myopia"

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