



MENU

Results for BARRIERS AND L... >

Barriers and limitations of conventional oculovisual screening methods in c...



Free Full Text from Publisher

View Full Text on ProQuest

Full Text Links ▾

Export ▾

Add To Marked List ▾

< 1 of 1 >

Barriers and limitations of conventional oculovisual screening methods in children: a systematic review perspective

By [Rahmat, BS'](#) (Rahmat, Baqiatu'l Sabiqi 'Assfi) ^[1]; [Md-Muziman-Syah, MM](#) (Md-Muziman-Syah, Md Mustafa) ^[2], ^[3]; [Nor, NM](#) (Nor, Noraishah Mohamed) ^[4]; [Sanmugam, T](#) (Sanmugam, Thashini) ^[5]

[View Web of Science ResearcherID and ORCID](#) (provided by Clarivate)

Source [BMC OPHTHALMOLOGY](#)

← [View Journal Impact](#)

Volume: 26 Issue: 1

DOI: 10.1186/s12886-025-04592-w

Article Number 64

Published JAN 19 2026

Indexed 2026-02-13

Document Type Review

Abstract Background Early detection of vision problems in children is essential for preventing developmental delays and academic challenges. Conventional vision screening methods are widely implemented; however, various barriers limit their effectiveness and accessibility. Objective This systematic review aims to identify and analyse the barriers and limitations associated with conventional vision screening methods in children. Methods A systematic search was conducted across the Scopus, Web of Science, and PubMed databases using predefined keywords and Boolean operators. Eligible studies included empirical investigations that examined barriers and limitations in paediatric vision screening. The review adhered to PRISMA 2020 guidelines, and quality assessment was performed using the Mixed Methods Appraisal Tool (MMAT). Results Of the studies screened, 25 met the inclusion criteria. Employing thematic analysis, five key barriers and limitations were discovered: (i) methodological limitations, (ii) resource constraints, (iii) competency gaps, (iv) socioeconomic and psychological barriers, and (v) policy and systemic challenges. Conclusion Future research should focus on evaluating novel screening approaches that can overcome current limitations and enhance early detection rates for a broader range of paediatric vision conditions.

Keywords **Author Keywords:** [Barriers and limitations](#); [Conventional vision screening](#); [Paediatric](#); [Systematic review](#)
Keywords Plus: [EYE-CARE](#); [SEEKING BEHAVIOR](#); [HEALTH](#); [ACCESS](#)

Author Information Corresponding Address: Md-Muziman-Syah, Md Mustafa (corresponding author)

▼ Int Islamic Univ Malaysia, Dept Optometry & Visual Sci, Kulliyah Allied Hlth Sci, Kuantan, Pahang, Malaysia

Corresponding Address: Md-Muziman-Syah, Md Mustafa (corresponding author)

Int Islamic Univ Malaysia, Kulliyah Allied Hlth Sci, Children Hlth & Wellbeing Res Grp, Kuantan, Pahang, Malaysia

E-mail Addresses :

syah@iium.edu.my

Addresses :

¹ Management & Sci Univ, Fac Hlth & Life Sci, Dept Optometry Rehabil & Well being, Shah Alam, Selangor, Malaysia

² Int Islamic Univ Malaysia, Dept Optometry & Visual Sci, Kulliyah Allied Hlth Sci, Kuantan, Pahang, Malaysia

³ Int Islamic Univ Malaysia, Kulliyah Allied Hlth Sci, Children Hlth & Wellbeing Res Grp, Kuantan, Pahang, Malaysia

⁴ Int Islamic Univ Malaysia, Dept Nutr Sci, Kulliyah Allied Hlth Sci, Kuantan, Pahang, Malaysia

⁵ Management & Sci Univ, Sch Grad Studies, Shah Alam, Selangor, Malaysia

E-mail Addresses :

syah@iium.edu.my

Data availability statement

All data generated or analysed during this study are included in this published article and its supplementary materials. Further information is available from the corresponding author upon reasonable request.

Categories/ Classification

Research Areas: Ophthalmology

Citation [1 Clinical & Life](#) > [1.36](#) > [1.36.813 Vision](#)
Topics: [Sciences](#) [Ophthalmology](#) [Disorders](#)

Sustainable Development Goals: [03 Good Health and Well-being](#)

Web of Science Categories

[Ophthalmology](#)

Funding

[View funding text](#)

Funding agency

[Management and Science University](#)

+ See more data fields

Journal information

BMC OPHTHALMOLOGY

0.81

← View Journal Impact

Journal Citation Indicator™ (2024)

eISSN 1471-2415

Current Publisher BMC, CAMPUS, 4 CRINAN ST, LONDON N1 9XW, ENGLAND

Table of Contents [Current Contents Connect](#)

Research Areas Ophthalmology

Web of Science Categories Ophthalmology

Citation Network

In Web of Science Core Collection

0 Citations

 Create citation alert

50

Cited References

→ View Related Records

Use in Web of Science

0 0

Last 180 Days Since 2013

[Learn more →](#)

This record is from:

Web of Science Core Collection

- Science Citation Index Expanded (SCI-EXPANDED)