

Instruments for assessing the quality of life in patients with visual impairment: a scoping review protocol

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Abstract

Background: Visual impairment affects approximately 2.2 billion people worldwide and has significant impacts on various aspects of life, including physical, social, economic, and emotional domains. Assessing the quality of life of these individuals is essential for identifying their needs and guiding health promotion strategies. However, no studies were found that systematically organize the instruments used for this evaluation specifically in people with visual impairment.

Objective: To systematically map the scientific evidence regarding the instruments used to assess quality of life in individuals with visual impairment.

Methods: The PCC acronym (population, concept, and context) guided the development of the research question: Which instruments available in the scientific literature are used to assess the quality of life of individuals with visual impairments? Data will be collected from major databases and grey literature, with duplicates managed in Mendeley® and screening conducted independently by two reviewers using Rayyan®. Full texts will be assessed based on eligibility criteria, and data will be synthesized in Microsoft Excel® and reported using a flowchart and narrative summary, following PRISMA-ScR guidelines.

Results: The present protocol was registered on the Open Science Framework (OSF) platform on July 28, 2025. The results of this study will be disseminated through publication in a peer-reviewed scientific journal. It is expected that the findings will provide valuable support for the development and advancement of a broader research project.

Conclusions: Identifying and evaluating instruments used to assess the quality of life in individuals with visual impairments is crucial to ensure the use of reliable and scientifically sound tools. This process not only advances scientific knowledge but also informs public health policies aimed at promoting equity, inclusion, and improved living conditions for this population.

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Instruments for assessing the quality of life in patients with visual impairment: a scoping review protocol

ABSTRACT

Background: Visual impairment affects approximately 2.2 billion people worldwide and has significant impacts on various aspects of life, including physical, social, economic, and emotional domains. Assessing the quality of life of these individuals is essential for identifying their needs and guiding health promotion strategies. However, no studies were found that systematically organize the instruments used for this evaluation specifically in people with visual impairment. **Objective:** To systematically map the scientific evidence regarding the instruments used to assess quality of life in individuals with visual impairment. **Methods:** The PCC acronym (population, concept, and context) guided the development of the research question: Which instruments available in the scientific literature are used to assess the quality of life of individuals with visual impairments? Data will be collected from major databases and grey literature, with duplicates managed in Mendeley® and screening conducted independently by two reviewers using Rayyan®. Full texts will be assessed based on eligibility criteria, and data will be synthesized in Microsoft Excel® and reported using a flowchart and narrative summary, following PRISMA-ScR guidelines. **Results:** The present protocol was registered on the Open Science Framework (OSF) platform on July 28, 2025. The results of this study will be disseminated through publication in a peer-reviewed scientific journal. It is expected that the findings will provide valuable support for the development and advancement of a broader research project. **Conclusion:** Identifying and evaluating instruments used to assess the quality of life in individuals with visual impairments is crucial to ensure the use of reliable and scientifically sound tools. This process not only advances scientific knowledge but also informs public health policies aimed at promoting equity, inclusion, and improved living conditions for this population. **Keywords:** Quality of life; instruments; persons with visual impairment; assessment; scoping review; nursing.

INTRODUCTION

Visual impairment affects approximately 2.2 billion individuals worldwide, of which around 1 billion cases could have been prevented. The leading causes of this condition include uncorrected refractive errors and cataracts [1]. It is estimated that the prevalence of distance vision impairment is up to four times higher in low- and middle-income regions compared to high-income regions [2]. The condition is more commonly observed in individuals aged 50 years and older [3].

Given this epidemiological context, visual impairment has a significant impact on multiple dimensions of an individual's life, including physical, social, economic, and emotional aspects. Visual limitations compromise functional autonomy, hinder social interaction, restrict access to the labor market, and impose an economic burden on both the individual and public health systems [4,5]. This condition considerably affects quality of life, contributing to reduced productivity, increased dependency on others for daily activities, and, in many cases, early retirement [5]. Moreover, the emotional effects related to vision loss or limitation are often associated with feelings of isolation, depression, and decreased self-esteem [6]. In this context, assessing quality of life becomes essential

for a comprehensive understanding of the consequences of visual impairment.

Quality of life is defined as an individual's subjective perception of their position in life, situated within the cultural context and value systems in which they are embedded, and aligned with their personal goals, expectations, standards, and concerns [7]. This construct encompasses multiple domains, including physical, mental, and spiritual health, interpersonal relationships, educational level, work environment, socioeconomic status, sense of security, freedom, decision-making autonomy, social integration, and physical environmental conditions [8].

Accordingly, assessing quality of life is essential to identify the specific needs of individuals in particular contexts, enabling the development of targeted intervention strategies that address their demands and promote well-being and functionality [8].

A preliminary literature search conducted in May 2025 using the PubMed and SCOPUS databases with the descriptors Persons with Visual Disabilities AND Instruments AND Quality of Life did not identify any review studies that specifically addressed this topic. This finding highlights a gap in the scientific literature regarding the systematization of instruments used to assess quality of life in individuals with visual impairment.

In this context, conducting a scoping review is justified as an appropriate methodological strategy to map and synthesize the available evidence on existing instruments used to assess the various domains of quality of life in this population. This approach is expected to provide valuable support for future research and clinical practice by guiding the selection of tools that have been previously validated and demonstrate adequate levels of accuracy and reliability in measuring constructs related to quality of life in individuals with visual impairment.

OBJECTIVE

To map the available scientific evidence on the instruments used to assess the quality of life of individuals with visual impairment.

METHODS

A scoping review will be conducted following the methodological criteria established by the Joanna Briggs Institute (JBI) and guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist. The protocol will be registered on the Open Science Framework (OSF) platform. The PCC acronym (Population, Concept, and Context) was used to formulate the guiding research question: What are the instruments available in the scientific literature used to assess the quality of life of individuals with visual impairment?

- P (Population): Persons with visual impairment
- C (Concept): Validated instruments
- C (Context): Quality of life

Inclusion Criteria

Population

Individuals with visual impairment of any degree, caused by any etiology, whether unilateral or bilateral. All age groups will be included. According to Brazilian Decree number 5.296, dated December 2, 2004, visual impairment includes: blindness, defined as visual acuity equal to or less than 0.05 in the better-seeing eye with best optical correction; low vision, defined as visual acuity between 0.3 and 0.05 in the better eye with best correction; cases in which the sum of the visual field in both eyes is equal to or less than 60 degrees; or the simultaneous occurrence of any of these conditions [3,9].

Concept

The validation process consists of a set of methods used to assess the accuracy and reliability of results obtained through research instruments such as questionnaires, interview guides, or tests. This process aims to determine whether the instrument effectively captures the intended phenomena and objectives, while also identifying the need for adjustments or improvements in the relationship between the selected variables and the theoretical construct under investigation. Instrument validation involves three main stages: content validity, construct validity, and criterion validity [10-13].

Context

Quality of life is defined by the World Health Organization (WHO) as an individual's perception of their position in life, within the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns [7].

Types of studies

This review will include articles derived from studies employing various methodologies, such as experimental and quasi-experimental designs, analytical observational studies, descriptive observational studies, qualitative research, and systematic reviews. Additionally, guidelines from professional societies, manuals, official protocols, government documents, theses, and dissertations will be considered, provided they are freely accessible in full and address instruments used to assess quality of life in individuals with visual impairment. Reference lists of the included sources will also

be examined to identify other relevant studies. No restrictions will be applied regarding language or publication date.

Exclusion criteria

Studies that do not address the research question, expert opinion pieces, incomplete studies, video or audio files will be excluded from the review.

Search Strategy

Searches will be conducted through the proxy access provided by the Federal University of Mato Grosso do Sul, via CAPES journal portal. The following electronic databases will be searched: MEDLINE/PubMed (via the National Library of Medicine), Web of Science Core Collection (Clarivate Analytics), Embase (Elsevier), SCOPUS (Elsevier), Cochrane Library and PsycINFO (American Psychological Association – APA). For grey literature, the following sources will be included: CAPES Theses and Dissertations Catalog, OpenGrey Information System, Theses Canada (Canada), Academic Archive Online (DIVA) (Sweden and other Scandinavian countries), National ETD Portal (South Africa), Trove – National Library of Australia (Australia and New Zealand) and Government websites.

Additionally, reference lists of the included articles will be hand-searched to identify potentially relevant studies not captured in the database search, thereby reducing selection bias.

All included studies will undergo methodological quality assessment using the Joanna Briggs Institute (JBI) Critical Appraisal Tools, and the level of evidence and grade of recommendation will be determined according to the Oxford Centre for Evidence-Based Medicine.

Preliminary search

The search strategy was designed to identify both published and unpublished studies relevant to the topic. An initial limited search was conducted in Web of Science, Scopus, and PsycINFO to identify existing literature and refine the search terms [Table 1].

Descriptors were defined using the MeSH (Medical Subject Headings) and EMTREE thesauri. Based on this process, the selected descriptors were: persons with visual disabilities, visually impaired person, instruments, and quality of life. Three different search strategies were developed to retrieve studies related to the topic:

1. Persons with visual disabilities AND Instruments AND Quality of life
2. Visually impaired person AND Instruments AND Quality of life

3. Persons with Visual Disabilities AND Quality of life

Table 1. Preliminary search results conducted on June 10, 2025.

Databases	Strategy 1	Strategy 2	Strategy 3	Total
Web Of Science	39 results	22 results	355 results	416 results
SCOPUS	4 results	410 results	48 results	462 results
PsycINFO	9 results	0 results	71 results	80 results

These preliminary findings demonstrate the relevance and variability of results based on search term combinations, highlighting the importance of applying comprehensive and sensitive strategies across multiple databases in the full review phase.

Data Management

Duplicate records will be identified and removed to ensure that each reference is considered only once. Reference management will be conducted using Mendeley®. Title and abstract screening will be performed through the Qatar Computing Research Institute platform (Rayyan QCRI®). Data extraction and synthesis will be carried out using Microsoft Excel®.

Selection

Process

The selection will occur in three stages. The first stage involves screening studies retrieved from the databases and exporting them in “RIS” format to Mendeley® software for duplicate removal, followed by import into Rayyan QCRI® for title and abstract screening.

For the eligibility phase, reviewers will undergo training through a pilot test. After this, two or more independent, blinded reviewers will assess titles and abstracts against the review’s inclusion criteria using the Rayyan QCRI® platform. In cases of disagreement, a third researcher will evaluate the study to reach consensus.

The final stage consists of full-text reading of the included studies to verify compliance with the predefined inclusion criteria. The search results and study selection process will be fully reported in the final scoping review and illustrated with a Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) flow diagram¹⁴.

Data

Extraction

Data synthesis will be conducted using Microsoft Excel® spreadsheets. The variables to be extracted include:

- 1. Citation (authors and title);**
- 2. Language;**
- 3. Year of publication;**
- 4. Publication medium (journal, guideline, thesis, etc.);**
- 5. Research location (country or region);**
- 6. Objectives;**
- 7. Study design;**
- 8. Level of evidence;**
- 9. Validation steps followed and type of instrument (questionnaires, interview guides, or tests);**
- 10. Variables included in the quality of life instrument for people with visual impairment;**
- 11. Target population for the instrument and application guidelines;**
- 12. Linguistic validations;**
- 13. Limitations.**

Presentation and Data Synthesis

The data will be organized into tables, figures, and synoptic charts. A narrative summary will accompany these representations, highlighting the main findings and their relevance to the review's objective. The study selection process will be detailed using the PRISMA-ScR flow diagram [14].

RESULTS

The present protocol was registered on the Open Science Framework (OSF) platform on July 28, 2025. Prior to that, in June 2025, an exploratory search of relevant scientific literature was conducted in major databases to map the existing body of research on the topic. Data collection is scheduled to take place from January to December 2026. The results of this study will be disseminated through publication in a peer-reviewed scientific journal. It is expected that the findings will provide valuable support for the development and advancement of a broader research project.

DISCUSSION

This study protocol defines a rigorous approach to the design and implementation of a scoping review aimed at mapping the instruments used to assess the quality of life of individuals with visual impairments. Initially, the discussion will be structured based on categories or degrees of visual impairment, with patients grouped according to these classifications. In addition, the mapping and synthesis of the studies will allow for the analysis of various aspects, including identify the design and development of these instruments, the sociodemographic profile of the populations assessed, the quality of life domains covered, identified limitations, validation methods employed, modes of application, as well as any adaptations and translations undertaken, based on evidence extracted from studies that used instruments to assess quality of life [7, 15-18]. Potential adjustments to this section may be necessary depending on the development and findings of the study.

Some limitations may arise during the course of the research. Among them, restricted access to articles, documents, and files that require payment may limit the scope of the analysis. Additionally, the selection of descriptors, as well as the choice of databases and sources of grey literature, may represent potential constraints that could lead to the exclusion of studies relevant to answering the research question.

Therefore, it is essential to identify which instruments available in the scientific literature are used to assess the quality of life of individuals with visual impairments, examining not only their

availability but also how they are described, applied, and validated. Understanding these aspects is crucial to ensure the use of methodologically robust and scientifically grounded tools capable of accurately measuring the quality of life of this population. Such identification contributes not only to the advancement of scientific knowledge but also supports public health policies by guiding actions that promote equity, inclusion, and improvements in the living conditions of this group.

FUNDING

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CONFLICTS OF INTERESTS

None declared.

DATA AVAILABILITY

The protocol was registered on the Open Science Framework platform (DOI: 10.17605/OSF.IO/YAU9B). The scoping review will subsequently be published in a public repository.

AUTHOR'S CONTRIBUTIONS

AFAR was responsible for the conceptualization, methodology, project administration, supervision and writing – original draft and resources, MAFJ for the conceptualization, methodology, project administration, supervision, visualization and writing – review and editing, AMS for the conceptualization, methodology, project administration, supervision, visualization and writing – review and editing, LLM and BKAM for the conceptualization, investigation and writing – original draft.

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