

Global Trends and Emerging Research Themes in Patient-Reported and Patient-Centered Outcomes after Cataract Surgery: A Bibliometric and Science Mapping Analysis

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Abstract

BACKGROUND/AIMS: Research on cataract surgery outcomes has increasingly expanded beyond visual acuity to include visual function, quality of life, patient satisfaction, and other patient-reported and patient-centered outcomes. This study aimed to examine global research trends and emerging themes in patient-reported and patient-centered outcomes following cataract surgery using bibliometric and science mapping methods.

MATERIALS AND METHODS: A literature search was conducted in the Web of Science Core Collection on 11 September 2026 using the topic field. Following document-type screening, 2,704 article and review article publications were analyzed using the bibliometrix package in R. Scientific production, citation characteristics, sources, authors, countries, institutions, collaboration patterns, keywords, and trend topics were evaluated.

RESULTS: The dataset comprised 2,704 publications from 472 sources published between 1980 and 2026. The mean number of citations per document was 26.42, the annual scientific production growth rate was 11.57%, and the international co-authorship rate was 22.15%. The United States was the most productive country (n=477); the University of London was the most productive institution (n=271); and Pesudovs K was the most productive author (n=53). Research themes progressed from visual outcomes and quality of life to visual function, patient satisfaction, spectacle independence, newer intraocular lens technologies, and patient-reported outcome measures. Psychometric properties and Rasch analysis were also prominent methodological themes.

CONCLUSION: Research on cataract surgery outcomes has demonstrated substantial growth and an expanding focus on patient-reported and patient-centered outcomes. Standardized patient-reported outcome measures and greater international, multicenter collaboration may strengthen future research in this field.

Keywords: Cataract extraction, quality of life, patient satisfaction, patient-reported outcome measures, bibliometric analysis

INTRODUCTION

Cataract remains one of the major causes of the global burden of vision loss, particularly in the context of population aging. According to global estimates for 2020, cataract was associated with approximately 17 million cases of blindness and 83.5 million cases of moderate-to-

severe vision impairment. Population growth and aging have also been identified as important contributors to the increasing global burden of cataract-related vision loss.¹ Cataract surgery is a primary treatment for cataract-related vision loss; however, postoperative visual outcomes may vary substantially across countries and regions.² Importantly, evaluating

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the success of cataract surgery solely through clinical indicators such as visual acuity may not fully capture patients' postoperative visual functioning, difficulties in daily activities, or changes in quality of life. Patient-reported assessments can provide complementary information to clinical measures by capturing patients' perceptions of visual function and the effects of surgery on their daily lives.^{3,4}

Patient-reported outcomes (PROs) and patient-reported outcome measures (PROMs) are increasingly used to evaluate the benefits of cataract surgery from the patient's perspective. These measures capture patients' own assessments of visual function, vision-related difficulties, symptoms, and the impact of treatment on their daily lives. In particular, instruments such as the Catquest-9SF have demonstrated good validity, reliability, and sensitivity for assessing changes in visual function following cataract surgery.³ The development of additional standardized PROMs for assessing visual symptoms and patients' visual experiences further indicates the expanding scope of patient-reported assessment in cataract research.⁴ The Cat-PROM5 and Catquest-9SF have also demonstrated strong psychometric performance in the assessment of cataract surgery outcomes.⁵ More recently, Catquest-9SF has been used to assess patient-reported visual function following cataract surgery in the United States Veterans Health Administration, supporting its continued applicability across diverse patient populations.⁶

The scope of PROs in cataract research extends beyond changes in visual function to include visual quality, symptoms, daily functioning, and satisfaction with treatment outcomes. A multicenter study found that patient-reported satisfaction following cataract surgery was associated with visual quality and aspects of the care process, while dysphotopsia was strongly associated with dissatisfaction.⁷ Similarly, standardized assessment of visual symptoms has highlighted patient-reported experiences that may not be fully explained by conventional clinical measures.⁴ Collectively, these findings support the importance of incorporating patients' experiences, functional outcomes, symptoms, and satisfaction alongside conventional clinical indicators when evaluating cataract surgery outcomes.

The increasing diversity of PROs, patient populations, and measurement approaches suggests that research on cataract surgery outcomes has developed into a multidimensional field. Beyond visual function and vision-related quality of life, increasing attention has been given to patient satisfaction, visual symptoms, daily functioning, and other outcomes reflecting patients' experiences. This broader perspective indicates a shift toward more comprehensive patient-centered outcome assessment.⁵⁻⁷ However, the researchers, institutions, countries, journals, and research themes shaping this expanding field, as well as their development over time, cannot be comprehensively characterized through individual clinical studies alone.

Bibliometric analysis and science mapping provide useful approaches for examining the structure and development of expanding research fields. Bibliometric methods enable evaluation of publication and citation patterns and identification of productive authors, institutions, countries, and journals, whereas science mapping examines relationships among research actors and concepts and identifies thematic developments within a field.^{8,9} These approaches can therefore provide an overview not only of the volume and distribution of scientific production but also of the themes that have shaped a research field and those that are emerging over time.

Despite the growing diversity of research on patient-reported and patient-centered outcomes after cataract surgery, the global structure and temporal development of this research field have not been comprehensively characterized. A comprehensive assessment of the researchers, institutions, countries, journals, collaboration patterns, and evolving research themes associated with different patient-reported and patient-centered outcome domains is needed. Such an assessment may help clarify the structure of the existing evidence base and identify established and emerging directions for future research.

Therefore, this study aimed to examine the global structure of the scientific literature on patient-reported and patient-centered outcomes after cataract surgery within the Web of Science (WoS)Core Collection, using bibliometric analysis and science-mapping methods. Specifically, we evaluated the temporal development of scientific production; identified the most productive authors, institutions, countries, and journals; examined publication and citation patterns; assessed scientific collaboration patterns; and identified established and emerging research themes in the field.

MATERIALS AND METHODS

Research Design

This study was designed as a bibliometric and science-mapping analysis to examine the global developments, research trends, and emerging themes in the literature on patient-reported and patient-centered outcomes after cataract surgery. Publication and citation characteristics, research productivity, collaboration patterns, and thematic developments were evaluated.

Data Source and Search Strategy

Bibliographic data were obtained from the WoS Core Collection. The literature search was conducted on 11 September 2026 using the topic (TS) field, which searches the title, abstract, author keywords, and keywords plus fields. The search strategy included terms related to cataract surgery, quality of life, visual function, patient satisfaction, patient experience, PROs, postoperative recovery, and daily functioning.

TS = ("cataract surgery") and TS = ("quality of life" or "health-related quality of life" or "vision-related quality of life" or "visual function" or "visual functioning" or "patient satisfaction" or "patient experience" or "patient-reported outcome" or "patient-reported outcomes" or "quality of recovery" or "postoperative recovery" or "daily functioning" or "activities of daily living").

Only records classified as article or review article were retained for analysis, resulting in a final dataset of 2,704 publications. Because WoS document-type classifications may overlap, eligibility was based on records classified as either article or review article.

To evaluate the precision of the search strategy and the potential inclusion of false-positive records, a random sample of 100 records from the final dataset was independently assessed by two reviewers based on their titles and abstracts. Records were evaluated for their relevance to cataract surgery and patient-reported or patient-centered outcomes. Initial agreement between the two reviewers was 98% (98/100 records). Disagreements concerning two records were resolved through discussion and consensus.

Inclusion and Exclusion Criteria

Records were included if they were classified as “article” or “review article” and if they addressed outcomes related to cataract surgery within the scope of the search strategy. Records not classified as article or review article were excluded. The final dataset comprised 2,704 publications.

Ethics

This study was a bibliometric analysis of bibliographic and citation data from the published scientific literature. No data were collected from human participants, and no personal data or individual patient records were collected. No intervention was performed. Therefore, the study did not involve human subjects research requiring ethics committee approval. The analysis was based exclusively on bibliographic records retrieved from the WoSCore Collection.

Statistical Analysis (Bibliometric Analysis and Science Mapping)

Bibliometric analyses were performed in R using the bibliometrix package. The analysis included publication and citation characteristics, annual scientific production, source distribution and Bradford’s law, author productivity and local citations, country-level production and international collaboration, institutional productivity, and keyword and trend-topic analyses. Country-level production was assessed using total publications, single-country publications (SCP), multiple-country publications (MCP), and international co-authorship rates. Institutional productivity was determined from institutional affiliations reported in WoS records. Author keywords and keywords plus were analyzed to determine keyword frequencies and their temporal distribution. Trend-topic analysis was performed using the Bibliometrix package to examine the temporal distribution of frequently occurring terms across publication years. The analysis was descriptive, based on term frequency and the temporal distribution of keywords within the dataset. In this study, the term “emerging” was used descriptively to refer to topics whose occurrence was concentrated in the most recent publication years, rather than to denote a statistically defined or inferentially tested category. No inferential threshold was applied to classify a topic as emerging. The annual scientific production growth rate was calculated by the bibliometrix package as the compound annual growth rate (CAGR) over the 1980-2026 study period, based on the number of publications in the first and last years of the dataset. CAGR was calculated as $[(N_{\text{final}}/N_{\text{initial}})^{(1/n)} - 1] \times 100$, where N_{initial} and N_{final} represent the numbers of publications in the first and last years, respectively, and n represents the number of years between these two time points. To account for differences in citation windows across publication years, a year-normalized citation score (Normalized TC) was also considered. In bibliometrix, documents are grouped according to publication year, and the total citation count of each document is normalized relative to the citation performance of documents published in the same year. Therefore, a Normalized TC value greater than 1 indicates citation performance above the average for the corresponding publication-year cohort. This approach was used to reduce the influence of unequal citation exposure times when comparing documents published in different years.

All bibliometric findings were analyzed and interpreted descriptively. No inferential statistical tests were performed; therefore, the observed patterns, trends, and associations should not be interpreted as statistically tested differences or relationships.

RESULTS

General Bibliometric Characteristics of the Dataset

A total of 2,704 documents published between 1980 and 2026 were analyzed. These documents were published in 472 sources and involved 9,787 authors. The average number of co-authors per document was 5.37, with a median of 5.00 [interquartile range (IQR): 3.00-7.00] and a range of 1-248. The international co-authorship rate was 22.15%, and the average number of citations per document was 26.42. Given the positively skewed citation distribution, the median citation count was 12.00 (IQR: 3.00-30.25), with a range of 0-1,254. The dataset contained 50,851 references, with an annual scientific production growth rate of 11.57%. The average document age was 10.5 years, with a median of 9.00 years (IQR: 4.00-16.00) and a range of 0-46 years. Detailed characteristics are presented in Table 1.

Annual Scientific Production

Scientific production demonstrated a clear long-term increasing trend between 1980 and 2026 (Figure 1). The first publication was recorded in 1980. Publication output increased from 33 documents in 2000 to 66 documents in 2010 and 137 documents in 2020. This increase continued in subsequent years, reaching 137 publications in 2021, 148 in 2022, 157 in 2023, 162 in 2024, and 194 in 2025, the highest annual output in the dataset. A total of 154 publications were recorded in 2026. Because the search was conducted on 11 September 2026, this value does not represent the complete calendar year.

Citation Performance by Year

Average citation performance varied substantially across publication years, with higher values among older publications and lower values among recent publications (Figure 2). The average total citations per document was 109.00 in 1993 and 91.15 in 1998, compared with 12.34 in 2022, 12.62 in 2023, 5.59 in 2024, 2.53 in 2025, and 0.51 in 2026. The lower citation counts among recent publications are likely related, at

Table 1. Basic bibliometric characteristics of the research dataset	
Bibliometric indicator	Result
Research period	1980-2026
Sources (journals, books, etc.)	472
Total number of documents	2.704
Annual scientific production growth rate	%11.57
Average document age	10.5 years
Median document age (IQR)	9.00 years (4.00-16.00)
Document age range	0-46 years
Average citations per document	26.42
Median citations per document (IQR)	12.00 (3.00-30.25)
Citation range	0-1.254
Total number of references	50.851
Number of authors	9.787
Number of single-authored documents	113
Average number of co-authors per document	5.37
Median number of co-authors per document (IQR)	5.00 (3.00-7.00)
Co-author range	1-248
International co-authorship rate	%22.15
IQR: Interquartile range.	

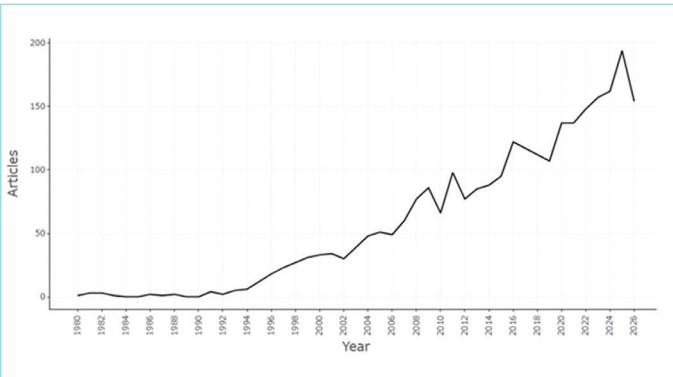


Figure 1. Annual scientific production from 1980 to 2026. Data for 2026 are partial and include publications indexed through 11 September 2026. The dashed segment indicates the incomplete observation period and should not be interpreted as a decline in annual scientific production.

least in part, to their shorter citation windows. The 2026 data should also be interpreted with caution because the search did not cover the entire year.

Citation performance varied across publication years, with older publications generally showing higher average total citation counts than more recent publications (Table 2). The average total citations per document were 109.00 in 1993, 91.15 in 1998, and 61.08 in 2003, compared with 12.34 in 2022, 12.62 in 2023, 5.59 in 2024, 2.53 in 2025, and 0.51 in 2026. Average annual citations also varied across publication years, reaching 4.66 in 2021, compared with 1.26 in 2025 and 0.51 in 2026. These findings should be interpreted cautiously because citation exposure periods differ across publication years. In addition, the 2026 data represent a partial year, as the database search was conducted on 11 September 2026.

Distribution of Publications Across Journals and Bradford’s Law

The 2,704 documents were published across 472 sources, with publications concentrated in a limited number of core journals. According to Bradford’s law, the core zone comprised 9 journals with 940 publications. Journal of Cataract and Refractive Surgery ranked first with 280 publications, followed by Clinical Ophthalmology (139), Ophthalmology (102), British Journal of Ophthalmology (88), and American Journal of Ophthalmology (70). The core zone accounted for 34.8% of all publications. The second and third zones comprised 25 journals with 869 publications and 438 journals with 895 publications, respectively.

Most Productive Authors and Authors’ Citation Performance

Pesudovs K was the most productive author with 53 publications, followed by Lundström M (44), Piñero DP (33), Lamoureux EL (32), and Auffarth GU (29). Kohnen T and Nuijts RMMA each contributed 23 publications, while Hayashi K and Plaza-Puche AB each contributed 20 publications. Alió JL contributed 19 publications (Table 3).

For local citations, Pesudovs K ranked first (935), followed by Lundström M (730), Lamoureux EL (483), Mangione CM (413), Ellwein LB (387), Plaza-Puche AB (350), Stenevi U (346), Bernth-Petersen P (344), Legro MW (324), and Javitt JC (323). Piñero DP ranked 11th with 321 local citations.

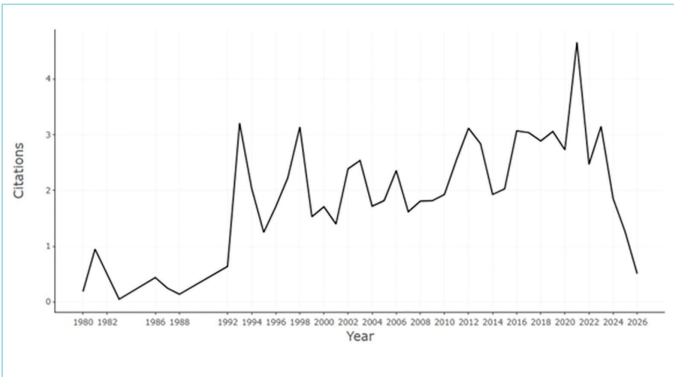


Figure 2. Average citations per year.

Table 2. Citation performance by year			
Year	Number of publications (n)	Average total citations per document	Average annual citations
1993	5	109,00	3,21
1998	27	91,15	3,14
2003	39	61,08	2,54
2012	77	46,73	3,12
2016	122	33,79	3,07
2021	137	27,99	4,66
2022	148	12,34	2,47
2023	157	12,62	3,15
2024	162	5,59	1,86
2025	194	2,53	1,26
2026*	154	0,51	0,51

*The 2026 data are partial and include publications indexed through 11 September 2026.

Table 3. Most productive authors and authors with the highest local citation counts			
A. most productive authors	Number of publications	B. authors with highest local citations	Local citations*
Pesudovs K	53	Pesudovs K	935
Lundström M	44	Lundström M	730
Piñero DP	33	Lamoureux EL	483
Lamoureux EL	32	Mangione CM	413
Auffarth GU	29	Ellwein LB	387
Kohnen T	23	Plaza-Puche AB	350
Nuijts RMMA	23	Stenevi U	346
Hayashi K	20	Bernth-Petersen P	344
Plaza-Puche AB	20	Legro MW	324
Alió JL	19	Javitt JC	323

*Local citations refer to citations received by an author’s publications from other publications within the analyzed dataset.

Scientific Production and International Collaboration by Country

Scientific production was concentrated in the United States (477; 17.64%), China (255; 9.43%), and the United Kingdom (254; 9.39%), followed by Germany (163), Spain (149), and Australia (143). MCP

percentages, calculated relative to the total number of publications within each country, showed that Australia had the highest proportion of internationally co-authored publications (44.06%), followed by Italy (29.33%), Canada (27.47%), and the United Kingdom (25.59%). Türkiye contributed 60 publications (2.22%), including 58 SCP and 2 MCP, corresponding to an MCP proportion of 3.33% (Table 4).

Institutional Scientific Production

The University of London ranked first in institutional productivity with 271 publications, followed by University College London (174), the University of California System (144), Johns Hopkins University (134), and the National University of Singapore (106). Other leading institutions included University of Sydney (102), Moorfields Eye Hospital NHS Foundation Trust (97), Johns Hopkins Medicine (84), University of Toronto (82), and L. V. Prasad Eye Institute (73) (Figure 3).

Keywords and the Temporal Development of Research Themes

Keyword analysis demonstrated a temporal shift in research themes from clinical and functional outcomes toward visual function, quality of life, patient satisfaction, and newer intraocular lens technologies (Figure 4). In the early period, prominent themes included medical outcomes, outcome measures, quality of life, functional impairment, older patients, and visual function. From the mid-2000s onward, visual

function, visual acuity, contrast sensitivity, visual impairment, and psychometric assessment became increasingly prominent. Key terms included contrast sensitivity (302), visual function (356), visual function questionnaire (55), psychometric properties (30), validity (52), and Rasch analysis (51). During the 2010s, research increasingly focused on cataract surgery, visual outcomes, intraocular lens implantation, and patient satisfaction. Among the most frequent terms were cataract-surgery (798), cataract surgery (525), outcomes (453), cataract (397), implantation (273), and patient satisfaction (255). Patient satisfaction became particularly prominent in the later period, which had a median publication year of 2020.

Among the terms concentrated in the more recent publication years (from 2022 onward) were newer intraocular lens technologies and PROMs, including spectacle independence (43), trifocal IOL (25), extended depth (86), extended depth-of-focus (EDOF) (26), EDOF IOL (11), enhanced monofocal IOL (7), and PROMs (5). These terms were interpreted descriptively as recent or emerging topics, based on their temporal distribution within the dataset.

Table 4. Scientific production and international co-authorship by country					
Country	Publications	Publication %	SCP	MCP	MCP (% of country publications)
United States	477	17,64	375	102	21,38
China	255	9,43	213	42	16,47
United Kingdom	254	9,39	189	65	25,59
Germany	163	6,03	125	38	23,31
Spain	149	5,51	120	29	19,46
Australia	143	5,29	80	63	44,06
Japan	123	4,55	119	4	3,25
India	97	3,59	75	22	22,68
Canada	91	3,37	66	25	27,47
Italy	75	2,77	53	22	29,33

MCP (%) was calculated for each country as the number of multiple-country publications divided by the total number of publications, and then multiplied by 100.
SCP: Single-country publications, MCP: Multiple-country publications.

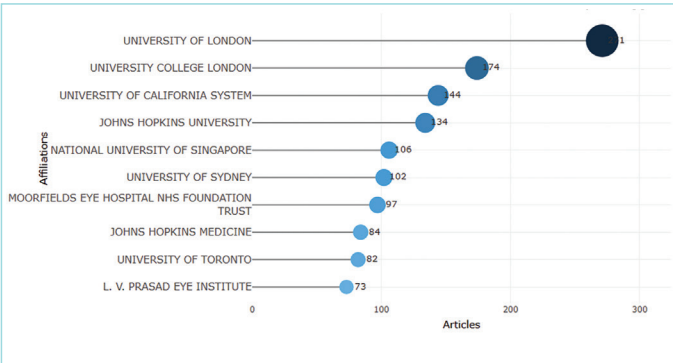


Figure 3. Most relevant affiliations.

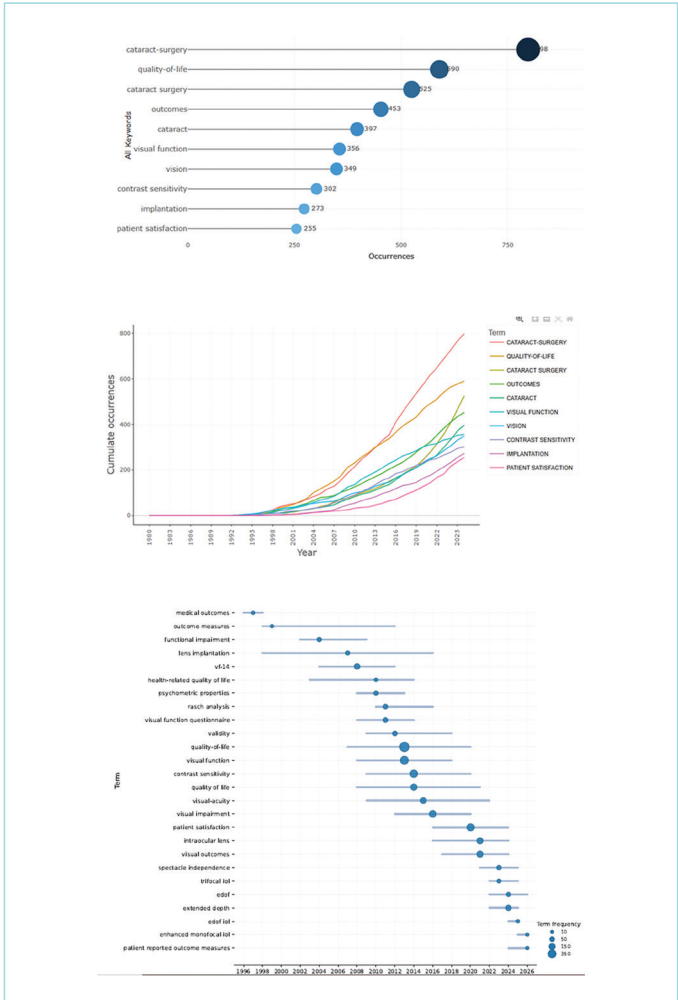


Figure 4. Keyword frequency and temporal evolution of research themes in cataract surgery outcomes. The upper panel shows the most frequent terms, the middle panel illustrates their cumulative frequency over time, and the lower panel presents trend topics according to their temporal distribution.

DISCUSSION

Growth and Expansion of the Research Field

This bibliometric analysis demonstrated sustained growth in research on patient-reported and patient-centered outcomes after cataract surgery, including visual function, quality of life, patient satisfaction, and daily functioning. Scientific production increased markedly from the 2000s onward, reaching 194 publications in 2025. The lower number recorded for 2026 should be interpreted with caution because the database search was conducted on 11 September 2026 and, therefore, does not represent the complete calendar year. The expansion of the field is consistent with a broader approach to cataract surgery outcomes that incorporates patients' experiences alongside conventional clinical measures. Mahmud et al.,¹⁰ in a proposed minimum standard set for cataract surgery outcomes, recommended the inclusion of patient-reported visual function alongside preoperative and postoperative visual acuity. Their framework emphasized that meaningful assessment of cataract surgery should include outcomes that reflect patients' perspectives in addition to clinical measures.

From Objective Visual Outcomes to Patient-Reported Outcomes

The temporal distribution of keywords and trend topics indicated a gradual expansion from visual acuity, visual impairment, and lens implantation toward visual function, quality of life, patient satisfaction, and PROMs. This pattern suggests increasing attention to outcomes that capture patients' perceptions of their visual function and postoperative experience. An important clinical consideration is that visual acuity and patient-perceived visual function do not necessarily represent the same construct. Fung et al.¹¹ found that correlations between PROM scores and visual acuity measures were variable and weak at best. The authors concluded that visual acuity may not fully reflect patients' visual function and suggested that PROMs can complement clinical measures in surgical decision-making and outcome monitoring. These findings provide a clinical context for the bibliometric pattern observed in the present study. The growing prominence of visual function, quality of life, and patient satisfaction suggests that cataract surgery outcomes are increasingly examined from a broader patient perspective rather than through visual acuity alone.

Development of Measurement and Psychometric Approaches

The emergence of terms such as the visual function questionnaire, psychometric properties, validity, and Rasch analysis indicates that research has also focused on how PROs should be measured. The development and validation of the Catquest-9SF represent important examples of this methodological development. Lundström and Pesudovs¹² developed a nine-item Rasch-scaled version of the Catquest questionnaire and demonstrated its validity and responsiveness for measuring visual disability outcomes of cataract surgery. Subsequently, Lundstrom et al.¹³ evaluated the Catquest-9SF before and after cataract surgery and reported excellent psychometric properties, unidimensionality, and high responsiveness to surgical change. These studies illustrate that the development of patient-reported outcome assessment in cataract surgery has involved not only identifying relevant outcomes but also establishing the validity, reliability, and responsiveness of the instruments used to measure them. Thus, the present bibliometric findings suggest a methodological maturation of the field, characterized by increasing attention to standardized and psychometrically sound measurement of patient-reported visual outcomes.

Patient Satisfaction, Spectacle Independence, and New Intraocular Lens Technologies

More recent trends included patient satisfaction, spectacle independence, trifocal intraocular lenses, and EDOF lenses. This shift indicates that research has increasingly addressed outcomes extending beyond postoperative visual acuity, including patients' visual experiences and everyday needs. This pattern is consistent with the systematic review by Wang et al.,¹⁴ which evaluated patient-centered and visual quality outcomes of premium cataract surgery. The review included spectacle independence, dysphotopsia, contrast sensitivity, vision-related quality of life, and patient satisfaction among the outcomes considered. More recent research has continued this approach. For example, Banerjee et al.¹⁵ used PROMs to evaluate patients receiving EDOF intraocular lenses and assessed spectacle use, daily activities, visual symptoms, and satisfaction. The increasing visibility of these topics in this bibliometric analysis therefore reflects a broader research agenda in which the functional and experiential consequences of different intraocular lens technologies are more frequently considered alongside conventional visual measures.

Geographic and Institutional Concentration of Research

Country- and institution-level analyses demonstrated that research production was concentrated in a limited number of countries and research centers. The United States was the most productive country, followed by China and the United Kingdom; the most productive affiliations included the University of London, University College London, the University of California System, and Johns Hopkins University. The overall international co-authorship rate was 22.15%, although substantial variation was observed between countries. This distribution indicates that the research field has developed through a relatively concentrated network of established academic and clinical centers. However, publication volume and international co-authorship should not be interpreted as direct indicators of research quality or clinical impact. The relatively modest overall international co-authorship rate also suggests potential for further multicenter and cross-national collaboration. Institutional findings should be interpreted in light of the structure of WoS affiliation data, as different units within the same research organization may be indexed separately. Nevertheless, the concentration of publications among major universities and specialized ophthalmic centers indicates the presence of established research infrastructures supporting this field.

Overall, the findings demonstrate that research on patient-reported and patient-centered outcomes after cataract surgery has expanded substantially in both volume and scope. The research agenda has progressed from predominantly clinical and visual indicators toward broader assessment of visual function, quality of life, satisfaction, spectacle independence, and other PROs. Future research may benefit from wider sampling.

Study Limitations

This study has several limitations. First, the analysis was based solely on the WoSCore Collection; therefore, relevant publications indexed in other databases may not have been captured. Second, the search strategy and terminology may have excluded studies using alternative terms for cataract surgery or patient-reported and patient-centered outcomes. Third, bibliometric indicators reflect publication and citation patterns but do not directly measure methodological quality, clinical

relevance, or scientific value. Citation-based comparisons should also be interpreted cautiously because older publications have had longer citation windows than recent studies. The 2026 data were collected on 11 September 2026, and therefore do not represent the complete calendar year. Institutional affiliations and keyword patterns may also be influenced by database indexing practices. Accordingly, the findings should be interpreted as a bibliometric representation of the available literature rather than a comprehensive assessment of the quality or clinical impact of the research in the field.

Although the search strategy was designed to comprehensively capture patient-reported and patient-centered outcomes, the use of broad Boolean terms may have resulted in the inclusion of some false-positive records. A random sample of 100 records was independently reviewed by two researchers to assess this potential source of error; however, because the entire dataset was not manually screened at the full-text level, some degree of misclassification cannot be completely excluded.

Furthermore, the analyses were descriptive and exploratory, and no inferential statistical testing was performed. Therefore, the observed temporal patterns and associations should not be interpreted as statistically significant differences or causal relationships.

CONCLUSION

This bibliometric and science-mapping study demonstrated substantial growth in research on patient-reported and patient-centered outcomes after cataract surgery from 1980 to 2026. The research agenda has progressively expanded beyond conventional visual outcomes toward visual function, quality of life, patient satisfaction, spectacle independence, and outcomes associated with newer intraocular lens technologies. The emergence of psychometric evaluation and Rasch analysis also reflects increasing methodological attention to the measurement of PROs. Scientific production was concentrated in a limited number of countries and academic and clinical research centers, while the international co-authorship rate of 22.15% indicates potential for greater cross-national collaboration. Future research should prioritize standardized PROMs, broader international and multicenter collaboration, and the integration of multiple bibliographic databases to provide a more comprehensive understanding of the field.

MAIN POINTS

- The scientific literature on patient-reported and patient-centered outcomes after cataract surgery has shown sustained growth from 1980 to 2026.
- Research has progressively expanded beyond visual acuity toward quality of life, visual function, patient satisfaction, and broader patient-centered outcome domains.
- Psychometric evaluation, Rasch analysis, and standardized patient-reported outcome measures (PROMs) have emerged as important methodological themes.
- Research production is concentrated in a limited number of countries, institutions, and journals, with international co-authorship accounting for 22.15% of publications.
- Future research should promote the standardized use of PROMs and broader international, multicenter collaboration.

ETHICS

Ethics Committee Approval: This study was based exclusively on data retrieved from the Web of Science Core Collection database and did not involve human participants, animals, or patient records. Therefore, ethical approval and informed consent were not required.

Informed Consent: Not applicable. This study was based exclusively on publicly available bibliographic data and did not involve human participants.

Footnotes

Authorship Contributions

Concept: D.K., G.D.S., Design: D.K., G.D.S., Data Collection and/or Processing: D.K., G.D.S., Analysis and/or Interpretation: D.K., G.D.S., Literature Search: D.K., G.D.S., Writing: D.K., G.D.S.

DISCLOSURES

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

Declaration on the Use of Artificial Intelligence (AI): Artificial intelligence has been used to assist with “language”.

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