Content available at: https://www.ipinnovative.com/open-access-journals

IP Indian Journal of Anatomy and Surgery of Head, Neck and Brain

Journal homepage: https://www.ijashnb.org/

Review Article

Quality indicators for academic journals: What makes a journal trustworthy?

Nikita Paliya[1]*, **Shiva Shankar Jha**[2]

[1]*Integrated Institute of Medical and Health Sciences - (IIMHS), Uttam Nagar, New Delhi, India*
[2]*Benevolent Committee Bihar Orthopaedic Association, Patna, Bihar, India*

ARTICLE INFO

Article history:
Received 20-11-2024
Accepted 01-01-2025
Available online 20-01-2025

Keywords:
Publishing Ethics
Predatory Practices
Scientific Communication
Research Integrity
Open Access Publishing Introduction

ABSTRACT

In the vast and ever-expanding landscape of academic publishing, the ability to discern the trustworthiness and quality of journals has become essential for researchers, educators, institutions, and readers alike. As academic journals serve as key platforms for sharing validated research, it is crucial that they adhere to rigorous quality standards. This review article explores the fundamental quality indicators that signal a journal's reliability and integrity. The peer-review process is highlighted as a primary quality determinant, as it ensures that published research is critically evaluated for methodological soundness, originality, and scientific contribution. By consolidating these quality indicators, this review provides a comprehensive framework for assessing journal trustworthiness, ultimately supporting the advancement of credible and ethical scientific communication.

1. Introduction

In an era marked by an exponential growth in scientific publications, discerning the quality and trustworthiness of academic journals has become both critical and challenging. Academic journals play an essential role in advancing knowledge, disseminating research findings, and shaping scientific discourse. However, not all journals uphold the same standards, and distinguishing reputable, high-quality journals from less credible or even predatory publications requires careful evaluation. For researchers, institutions, and readers, understanding what makes a journal trustworthy is essential to ensure that they rely on accurate, rigorous, and ethically produced research.[1]

1.1. Quality of the journal with collaborative research

Persistence of publication in journals with collaborative research is a definite footprint towards making a journal trustworthy. Benefits of this important collaborative research must be apparent with inbuilt interdisciplinary approaches, shared expertise and resources, enhanced creativity and innovation. These journals with increased publication rates attribute with improved research quality to impart increased validity and enhanced career opportunities. It will not be out of place to admit that such collaborative research many times falls prey to interpersonal trust. Communication barriers in the power dynamics can overcome personality clashes with clarification of respective roles to build up trust and reliability by conflict resolution. Logistical appreciation crossing the barrier of geographic dispersion can schedule resource sharing, data management with credibility and ownership of intellectual property. Study design and statistical analysis should work out in executing different methodologies involving data compatibility, sampling and recruitment. Institutional funding and administrative support as per the institutional policies brings credit and recognition to the publication process. Establishing clear goals and expectations can

* *Corresponding author*.
E-mail address: npandit.its@gmail.com (N. Paliya).

https://doi.org/10.18231/j.ijashnb.2024.019

develop collaborative agreements to engage the process frequently. Aristotale's famous quote " The whole is greater than sum of its part" holds true for the wholesome assessment of quality of a journal.

The concept of quality in academic publishing encompasses multiple dimensions, including the robustness of the peer-review process, editorial standards, ethical practices, transparency in authorship and publication fees, and indexing in respected databases. Each of these elements serves as a "quality indicator," collectively forming the foundation upon which a journal's reputation is built. Quality indicators also provide critical benchmarks, enabling readers to verify that a journal adheres to established scientific and ethical standards. For researchers, publishing in high-quality journals enhances the credibility and reach of their work, while for readers, it offers reassurance that the information presented is reliable and scientifically validated.[2]

In recent years, the surge in open-access publishing, combined with the proliferation of "pay-to-publish" models, has led to a rise in questionable journals that often lack the rigorous standards expected of credible publications. These journals, often termed "predatory," exploit the academic need for publication without adhering to recognized peer review and editorial standards. For this reason, identifying reliable quality indicators—such as indexing in reputable databases, ethical publication practices, and transparent peer review processes—has become a pivotal part of the research process, helping to safeguard the integrity of academic publishing.

This article explores the key quality indicators that define trustworthy academic journals, examining aspects such as the peer review and editorial processes, impact metrics, ethical practices, indexing standards, and transparency in publication. By establishing clear markers of quality, this review aims to provide a comprehensive framework that researchers, reviewers, and readers can use to assess and choose journals that contribute positively to scientific knowledge and uphold the highest standards in academic publishing.[3]

2. Peer Review Process[4]

Peer review is a critical evaluative process used by academic journals to ensure that submitted research meets established standards of rigor, originality, and significance. Through peer review, manuscripts are scrutinized by experts, who assess their methodologies, interpretations, and contributions to their respective fields. This process, while crucial, faces numerous challenges, including biases, inconsistencies, and ethical concerns. A detailed examination of the peer-review process can illuminate areas of improvement and highlight the essential role it plays in academic publishing.

2.1. Structure of the peer review process

The peer-review process begins once an article is submitted to a journal. It generally follows these stages:

1. *Initial Screening by Editors:* The editorial team assesses whether the manuscript meets the journal's basic criteria for scope, format, and novelty. This initial screening prevents manuscripts that are obviously unsuitable or poorly prepared from entering the review phase.
2. *Assignment to Peer Reviewers:* Selected experts in the manuscript's topic are invited to assess the work. The selection criteria prioritize reviewers with relevant expertise, free of conflicts of interest.
3. *Evaluation by Reviewers:* Reviewers analyze the manuscript's methodology, data accuracy, interpretation, and relevance. They provide a structured report, often suggesting revisions or questioning interpretations, to strengthen the article's scientific contribution.
4. *Editorial Decision:* Based on the reviewers' comments, the editorial board decides to accept, reject, or request revisions from the authors. Revisions may go through additional review rounds.
5. *Final Acceptance and Publication:* If approved, the manuscript proceeds to the publication phase. Journals typically conduct a final quality check, including proofreading and formatting, before publication.

2.2. Types of peer review[5]

There are several peer review models, each with its advantages and limitations. The most common types include:

1. *Single-Blind Review:* The reviewers know the authors' identities, but the authors do not know the reviewers. Encourages honest and unbiased feedback from reviewers. May introduce bias, as reviewers aware of an author's identity might be influenced by factors like reputation, affiliations, or prior knowledge of the author's work.
2. *Double-Blind Review:* Both the authors and reviewers remain anonymous to each other. Reduces bias related to author identity, gender, or institutional affiliation. Effective blinding can be difficult to achieve, especially in highly specialized fields where reviewers may deduce author identity based on topic or citations.
3. *Open Review:* Both the identities of the reviewers and authors are known to each other. Promotes transparency and accountability, as reviewers may be more thorough, knowing their feedback is public. Reviewers may avoid giving critical feedback to protect professional relationships, leading to less candid reviews.

4. *Post-Publication Peer Review:* Manuscripts are reviewed and critiqued by the broader community after publication. Engages a larger number of experts, increasing the scope and depth of review. May lead to delayed quality control, and critical errors might go unnoticed initially if not reviewed rigorously pre-publication.
5. *Collaborative Review:* Reviewers work together, often with editors, to create a consensus report on the manuscript. Reduces disparities in feedback and provides authors with more unified, constructive comments. Requires more coordination and may be time-intensive.

2.3. Standards of quality in peer review

Maintaining high standards in peer review is essential for scientific integrity. Key indicators of quality include:

1. *Reviewer Expertise and Training:* Reviewers should possess relevant expertise in the manuscript's area, ensuring accurate and constructive feedback. Many journals now offer training programs to standardize quality in reviewing.
2. *Transparency and Accountability:* Some journals provide authors with reviewer information and feedback history to promote transparency. Public reviewer comments, when available, allow the research community to assess the rigor and fairness of the review.
3. *Constructive and Unbiased Feedback:* High-quality peer review involves objective, constructive feedback. Journals may provide guidelines to reviewers to encourage constructive critique and maintain objectivity.
4. *Timeliness and Efficiency:* Delays in peer review can hinder scientific progress. Efficient review processes help minimize delays while maintaining quality.

2.4. Challenges and criticisms of the peer review process[6]

Despite its importance, peer review faces several challenges that impact its effectiveness:

1. *Reviewer Bias:* Biases related to gender, geography, reputation, and institutional affiliations can compromise objectivity in reviews. For instance, studies have shown that work from certain prestigious institutions or renowned authors may receive preferential treatment.
2. *Inconsistency in Reviews*: The variability in reviewer opinions can lead to inconsistencies in acceptance and rejection decisions. This inconsistency may affect the objectivity and reliability of the process.
3. *Time and Resource Constraints:* The peer-review process can be time-consuming for both reviewers and editors, often leading to delays in publication. The increasing number of submissions strains the limited pool of qualified reviewers.
4. *Predatory Journals and Fake Peer Review:* Predatory journals bypass rigorous peer review for profit, undermining scientific credibility. Additionally, unethical practices like fake peer reviews, where authors suggest biased reviewers, have occasionally surfaced.
5. *Limited Feedback and Reviewer Fatigue:* With the growing volume of research, many reviewers experience "review fatigue," which can lead to shorter, less thorough reviews and affect the overall quality.

2.5. Emerging models and innovations in peer review[7]

To address these challenges, various innovations are being explored:

1. Transparent Peer Review: Transparent peer review publishes review comments alongside articles, allowing readers to view feedback and the authors' responses. Increases accountability and transparency while allowing readers to see how a manuscript evolved through the review process.
2. AI and Automated Assistance: AI tools are being used to screen for plagiarism, data anomalies, and methodological issues, helping reduce reviewer workload. Automated tools can streamline the initial review phases, allowing human reviewers to focus on content and interpretation.
3. Portable Peer Review: Allows authors to transfer peer reviews from one journal to another, reducing redundant review rounds if a paper is rejected. Improves efficiency by allowing previously reviewed papers to be re-evaluated at another journal without restarting the process.
4. Reviewer Recognition and Incentives: Many journals and organizations now offer recognition or incentives to reviewers, such as certification, acknowledgments, or formal rewards. Encourages more reviewers to participate and submit high-quality reviews.

The peer-review process remains essential for maintaining the quality and credibility of academic publications. Although it faces significant challenges, innovations such as transparent peer review, AI-assisted review tools, and reviewer recognition systems are enhancing its reliability, transparency, and efficiency. By embracing these advancements, academic publishing can continue to uphold scientific integrity and support the dissemination of rigorous, credible research.

3. Editorial Standards and Integrity in Academic Publishing[8]

Editorial standards and integrity refer to the ethical and procedural guidelines that govern the activities of editors, reviewers, and editorial boards in academic journals. They are instrumental in ensuring that published research is credible, ethically conducted, and contributes meaningfully to the body of scientific knowledge. High editorial standards are crucial not only for safeguarding the reputation of individual journals but also for maintaining trust in the academic publishing system as a whole. This review delves into the core components of editorial standards, exploring their impact on journal quality, the challenges in maintaining them, and recent innovations that support editorial integrity.

3.1. Components of editorial standards and integrity

Several components collectively define editorial standards and integrity in academic publishing:

3.2. Editorial board composition and expertise

The editorial board is responsible for setting the journal's standards and ensuring its adherence to rigorous publishing practices. High-quality journals select editors and reviewers with substantial expertise and a strong reputation in relevant fields, ensuring that manuscripts are reviewed by competent individuals. Additionally, board members should be selected based on a diverse range of backgrounds to reduce potential biases and broaden the scope of scientific rigor.

4. Ethical Guidelines

Journals are expected to follow comprehensive ethical guidelines, often based on frameworks from organizations like the Committee on Publication Ethics (COPE). These guidelines cover issues such as:

1. *Plagiarism:* Ensuring originality of submitted work through plagiarism detection tools and policies against duplicate publication.
2. *Data Manipulation:* Verifying the integrity of data, including policies against data fabrication and manipulation
3. *Authorship:* Clear criteria for authorship to prevent issues like ghost writing, gift authorship, or honorary authorship.
4. *Research Integrity:* Enforcing ethical standards for research involving human and animal subjects, including adherence to institutional and national guidelines.

By adhering to these ethical guidelines, journals enhance their credibility and prevent unethical practices from undermining scientific integrity.

5. Conflict of Interest and Transparency

Editors, reviewers, and authors must declare any conflicts of interest that may influence the decision-making process. Conflicts can arise due to financial interests, professional affiliations, or personal relationships that could bias judgment. A commitment to transparency, where journals publicly disclose the affiliations and potential conflicts of editors and reviewers, is becoming an increasingly vital aspect of editorial integrity.

6. Peer Review Process Oversight

The peer review process, managed by the editorial board, ensures that submitted manuscripts are evaluated thoroughly and fairly. The editorial team is responsible for selecting qualified reviewers, guiding the review process, and making decisions based on reviewer feedback. Standards for peer review vary, but quality control mechanisms like double-blind review, open peer review, and post-publication review are integral to maintaining high editorial standards.

7. Accountability and Corrective Measures

Editorial boards are also tasked with addressing issues that arise post-publication, such as retractions, corrections, and clarifications. Retractions are issued when serious issues are identified in published work, such as data falsification or methodological errors. By openly acknowledging and addressing these issues, journals uphold their responsibility to scientific accuracy and public trust.

8. Challenges in Maintaining Editorial Standards and Integrity[9]

Maintaining editorial standards and integrity in academic publishing is complex and challenging, with several issues impacting the process:

9. Reviewer Fatigue and Resource Constraints

The rising volume of submissions can strain resources and lead to reviewer fatigue, potentially impacting the quality and thoroughness of the review process. Editors may struggle to find qualified reviewers, leading to delays or reliance on less-experienced reviewers, which could compromise the integrity of the peer-review process.

10. Predatory Publishing Practices

Predatory journals prioritize profit over quality, bypassing rigorous peer-review and editorial standards. Such journals exploit the open-access publishing model, charging authors significant fees without providing quality editorial oversight. These practices not only damage the reputation of academic publishing but also dilute the scientific record with poorly vetted research.

11. Conflicts of Interest and Bias

Despite policies on conflict of interest, bias can sometimes influence editorial decisions. Editors may experience implicit biases due to institutional affiliations, prior knowledge of an author's work, or personal connections. Conflicts of interest that go undeclared can also compromise the objectivity of the publication process, especially in specialized fields where editorial independence is crucial.

12. Pressure to Increase Impact Metrics

The pressure to improve impact factors and other metrics can lead some journals to prioritize articles with potential for high citation rates over scientifically rigorous but niche studies. This focus on metrics may skew editorial decisions, potentially favoring sensational or trendy topics over work that may be scientifically sound but less popular.

13. Emerging Practices to Enhance Editorial Standards and Integrity [10]

To address these challenges, the academic publishing industry is adopting various innovative practices aimed at strengthening editorial standards:

13.1. AI-Enhanced editorial tools

Artificial intelligence (AI) is increasingly integrated into the editorial process, from plagiarism detection and data validation to identifying methodological weaknesses. AI tools assist editors in the initial screening of manuscripts, detecting issues like duplicate submissions or ethical inconsistencies, thereby improving the efficiency and accuracy of editorial oversight.

13.2. Transparent and open peer review models

Transparency in peer review has gained momentum, with some journals adopting open peer review where reviewer identities are disclosed and comments are published alongside the article. This approach fosters accountability and allows readers to understand the review process that informed the publication decision. Post-publication peer review, where articles continue to be reviewed by the broader community, is also emerging as a supplementary measure to ensure ongoing quality assessment.

13.3. Editorial board training and guidelines

Recognizing the importance of skilled and unbiased decision-making, many journals are now providing training programs for their editorial boards. These programs address topics such as conflict-of-interest management, ethics in peer review, and standards for handling retractions. Editorial guidelines and decision trees also help editors make consistent, high-quality decisions across various types of submissions.

13.4. Enhanced editorial independence

For editorial standards to remain uncompromised, it is essential that editors are shielded from undue influence by publishers or funding bodies. Enhanced editorial independence ensures that decisions are made in the best interest of the scientific community rather than financial interests. Many journals have implemented policies to prevent interference in editorial decisions, allowing the editorial team to operate autonomously and prioritize scientific quality.

14. Indexing and Abstracting in Reputable Databases [11]

Indexing and abstracting play a fundamental role in academic publishing by ensuring that research articles are discoverable, accessible, and credible. Indexing involves the cataloging of journals and their articles in searchable databases, while abstracting provides concise summaries that help researchers identify relevant studies. The inclusion of a journal in reputable indexing databases signals adherence to recognized academic standards, contributing to the credibility of both the journal and the articles it publishes. This review explores the criteria for indexing, the benefits of inclusion, the challenges faced by journals, and the evolving standards and technologies impacting indexing and abstracting in the digital age.

14.1. Importance of indexing and abstracting in reputable databases

Reputable indexing and abstracting databases, such as PubMed, Scopus, Web of Science, and IEEE Xplore, are highly selective in their inclusion criteria. Journals indexed in these databases are often perceived as more trustworthy and reputable due to the stringent standards imposed by the databases. Indexing and abstracting provide several essential benefits:

15. Increased Visibility and Discoverability

Inclusion in reputable databases greatly enhances the visibility of a journal's articles, making it easier for researchers to discover relevant content. Indexed journals are accessible through well-used platforms, increasing the likelihood that articles will be cited, read, and utilized by the academic community.

16. Credibility and Prestige

Being indexed in reputable databases is seen as a mark of quality, indicating that the journal meets established academic and ethical standards. This enhances the

reputation of the journal, the authors, and the institutions associated with it. For authors, publishing in indexed journals adds value to their scholarly portfolio and can be beneficial for career advancement and funding applications.

17. Facilitating Literature Review and Knowledge Synthesis

Abstracting services provide structured summaries that allow researchers to quickly assess the relevance of articles to their own work. Indexed and abstracted articles are easy to find in searches, making literature reviews and knowledge synthesis more efficient. Comprehensive indexing and abstracting enable researchers to access a wide array of relevant studies, contributing to a more thorough understanding of the field.

18. Improved Citation Metrics

Indexed journals often experience higher citation rates due to increased visibility and accessibility. Databases like Scopus and Web of Science are widely used for tracking citations, which impacts the journal's impact factor and other citation-based metrics. High citation rates enhance the journal's influence within the academic community and support the development of a robust body of literature.

19. Reputable Databases and their Specific Requirements[12]

Different databases have unique inclusion requirements. Here are examples of some of the most recognized indexing platforms:

19.1. PubMed and MEDLINE

PubMed, maintained by the National Library of Medicine (NLM), focuses on biomedical and life sciences literature. Journals indexed in PubMed must meet rigorous standards, including transparent peer-review policies, ethical practices, and a commitment to data integrity. Inclusion in MEDLINE, a subset of PubMed, is even more selective, representing journals of the highest quality in biomedical research.

19.2. Scopus

Scopus, managed by Elsevier, indexes journals across multiple disciplines. Scopus evaluates journals based on a range of criteria, including peer-review rigor, publication ethics, quality of editorial practices, and international diversity in authorship. Scopus uses its Content Selection and Advisory Board (CSAB) to evaluate journals for inclusion.

19.3. Web of Science

Web of Science, owned by Clarivate Analytics, is known for its stringent selection process and is divided into specialized indexes like the Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). Web of Science assesses journals based on their academic contribution, citation impact, and editorial quality, and it includes journals with a high level of scholarly influence.

19.4. IEEE Xplore

IEEE Xplore is a digital library that primarily indexes journals, conferences, and standards in engineering, technology, and computer science. Its selection process focuses on technical quality and relevance to the fields it covers. Indexed journals must meet standards for peer review, technical accuracy, and contribution to technology.

20. Challenges in Achieving and Maintaining Indexing Status

Journals face several challenges in meeting the high standards required for indexing in reputable databases:

20.1. Resource and financial constraints

High editorial standards, peer-review processes, and adherence to ethical guidelines require significant resources. Smaller or newly established journals, particularly those without financial backing from large publishers, may struggle to meet these requirements.

20.2. Predatory publishing and its impact

The rise of predatory journals, which prioritize profit over quality, has cast doubt on some open-access journals. To protect their reputations, reputable databases have introduced increasingly stringent selection processes, making it challenging for newer journals to gain indexing without a proven track record.

20.3. Balancing regional representation

Many reputable databases prioritize journals with international influence, which can disadvantage regional journals that focus on locally relevant research. Ensuring a balanced representation of high-quality research from diverse geographic areas remains an ongoing challenge.

21. Impact Metrics and Citation Analysis[13]

Impact metrics and citation analysis are essential tools for evaluating the influence, visibility, and academic value of research publications. Impact metrics, such as the Journal Impact Factor (JIF), h-index, and CiteScore, are commonly used to assess the overall influence of journals

and individual researchers based on citation data. These metrics provide insight into the visibility of publications and their contributions to academic fields, guiding authors, institutions, and funding agencies in decision-making processes.

Citation analysis complements impact metrics by examining citation patterns in scholarly work. It can reveal connections between studies, highlight influential papers, and track trends in specific fields. Tools like Google Scholar, Web of Science, and Scopus compile citation data, allowing researchers to understand their work's reach and engagement.

However, impact metrics and citation analysis face criticism for overemphasizing citation counts, which may not always reflect quality. For instance, metrics like JIF can be skewed by a few highly cited articles, while citation patterns may vary greatly by field and type of research. Recently, alternative metrics, or "altmetrics," have emerged to capture a broader picture of impact by measuring online engagement, such as social media mentions and downloads.

22. Ethical Practices and Transparency [14]

Ethical practices and transparency are crucial pillars in academic publishing, ensuring the integrity, reliability, and credibility of research. Ethical guidelines, established by organizations such as the Committee on Publication Ethics (COPE), outline standards for authors, editors, reviewers, and publishers to prevent misconduct, including plagiarism, data fabrication, and conflict of interest. Adherence to ethical practices supports the authenticity of scientific findings and fosters trust within the academic community.

Transparency, closely tied to ethical standards, requires journals to maintain clear policies on peer review, conflicts of interest, funding sources, and data availability. Transparent peer review processes, where review procedures and criteria are disclosed, contribute to the accountability of research evaluation. Similarly, journals are increasingly adopting open data practices, allowing researchers to access underlying datasets, which supports reproducibility and enhances trust in findings.

Ethical practices and transparency are also integral to combatting predatory publishing, which undermines academic standards by prioritizing profit over quality. Ethical journals enforce rigorous peer review and clear publication policies, signaling to readers and researchers that they uphold high standards.

23. Open Access Policies and Transparency in Fees [15]

Open Access (OA) publishing represents a shift from the traditional subscription-based model, providing free and unrestricted access to scholarly work. OA emerged in response to high journal subscription costs, aiming to increase the accessibility, reach, and impact of research. However, OA has also introduced publication costs, often covered by Article Processing Charges (APCs) levied on authors or their institutions. These fees, while supporting the OA model, have raised concerns regarding transparency, affordability, and potential biases favoring well-funded researchers.

23.1. Open access models and their policies

OA policies vary across publishers and journals, offering different levels of access and charging structures. The most common OA models include:

1. *Gold Open Access:* In the Gold OA model, articles are made immediately available to the public upon publication. This model often involves APCs paid by authors or their institutions to cover publication costs. Gold OA journals are usually fully open access, meaning all content within the journal is freely available.
2. *Hybrid Open Access:* Hybrid OA journals allow authors to choose between traditional subscription-based publishing and paying an APC to make their work openly accessible. This approach has drawn criticism, as it can lead to "double-dipping," where journals collect subscription fees while also charging APCs for OA articles.
3. *Green Open Access:* Green OA, or self-archiving, allows authors to deposit their work in a repository, such as an institutional or subject-specific archive. Many publishers permit authors to archive preprints or accepted manuscripts, though often with embargo periods before open availability.
4. *Diamond/Platinum Open Access:* In Diamond or Platinum OA, the journal covers all publication costs, making articles freely available without charging authors APCs. These journals are typically funded by academic institutions, foundations, or government grants, making them free for both readers and authors.

23.2. Financial transparency and APCs in open access publishing [16]

APCs are the primary funding mechanism for Gold and Hybrid OA models, covering editorial costs, peer review, marketing, and digital archiving. However, transparency in fee structures is vital for several reasons:

1. *Fee Transparency:* APC costs vary widely across journals, even within the same publisher, with fees ranging from hundreds to several thousand dollars. Transparent fee structures allow authors to make informed decisions and enable funding bodies to allocate resources effectively. Transparent APC policies include clear explanations of what the fees cover, any additional costs, and any discounts or

waivers available for authors from low-income regions.
2. *Affordability and Accessibility:* High APCs can present barriers for researchers without adequate funding, particularly those from developing countries or smaller institutions. Some journals offer discounts, waivers, or sliding fee scales based on authors' affiliations and financial circumstances. Greater transparency in APCs helps authors and institutions assess the affordability of OA publishing.
3. *Preventing Predatory Publishing:* Predatory publishers exploit the OA model by charging high fees without providing rigorous peer review or editorial services, prioritizing profit over scholarly integrity. Transparent APCs and clear publication practices help distinguish reputable journals from predatory entities, aiding authors in identifying credible OA journals.
4. *Institutional and Grant Compliance:* Funding bodies and institutions increasingly mandate that research be published in OA venues to enhance accessibility. Transparent APC policies allow institutions to evaluate journals for compliance with funder mandates and ensure that fees align with the services provided.

23.3. Emerging trends and technologies in open access fee transparency[17]

As OA publishing continues to evolve, new trends and technologies are helping enhance transparency in fees:

Plan S and its Influence on Fee Transparency -Plan S, an initiative that mandates funded research be published in compliant OA journals, requires journals to disclose APCs and related fees transparently. Its influence has prompted publishers to adopt clearer fee structures and practices, fostering greater accountability in OA publishing.

Blockchain and Distributed Ledger Technologies- Blockchain technology, with its ability to create immutable records, offers potential for transparent tracking of publication fees, peer review histories, and funding sources. Although still emerging in academic publishing, blockchain could provide an additional layer of transparency in fee structures and publishing processes.

Open-Source Platforms and Collaborative Publishing Models- Platforms like Open Journal Systems (OJS) and community-driven initiatives offer cost-effective alternatives to traditional publishing, reducing or eliminating APCs while maintaining transparency. These platforms contribute to equitable access and facilitate transparent communication of any associated costs.

24. Publishing Frequency and Accessibility

Publishing frequency and accessibility are essential factors that determine a journal's relevance, readership, and contribution to ongoing scholarly discourse. Journals with a regular and predictable publishing frequency—whether quarterly, monthly, or weekly—help establish a reliable platform for researchers to disseminate timely findings. Increased frequency can support the rapid evolution of knowledge in fast-paced fields, such as medicine or technology, while fields with slower developments may benefit from more selective, periodic publishing schedules.

Accessibility, in turn, determines how readily the research reaches its intended audience. Open Access (OA) journals are highly accessible, providing unrestricted access to readers worldwide. This accessibility is essential for fostering inclusivity in research, allowing academics, practitioners, and the general public to benefit from new knowledge without the barrier of subscription fees. For subscription-based journals, hybrid models and self-archiving options offer partial solutions by making individual articles available without full open access.

Together, publishing frequency and accessibility influence a journal's impact and readership, supporting timely dissemination of knowledge and inclusivity across geographic and socioeconomic boundaries.

25. Author Guidelines and Support[18,19]

Author guidelines and support are foundational to an effective and streamlined publication process. Clear, comprehensive author guidelines help researchers understand a journal's expectations for manuscript format, referencing style, ethical standards, and submission procedures. Detailed instructions on structure, word limits, and data presentation reduce confusion and expedite the review process, improving overall submission quality and consistency.

Support systems complement guidelines by offering authors resources and assistance through every stage of publication. Many journals provide online resources, tutorials, and access to editorial staff for queries about formatting, submission requirements, or ethics compliance. Some journals also offer language editing services or peer support networks to assist non-native English speakers or early-career researchers.

Effective author guidelines and robust support mechanisms contribute to higher-quality submissions, facilitate smoother review workflows, and enhance authors' publishing experiences, fostering a productive and collaborative relationship between researchers and publishers.

The arrows in the diagram indicate the interrelationships between these categories, suggesting that they collectively contribute to the overall trustworthiness and quality of an academic journal.

This conceptual framework identifies four key categories that contribute to assessing the quality and trustworthiness of academic journals:

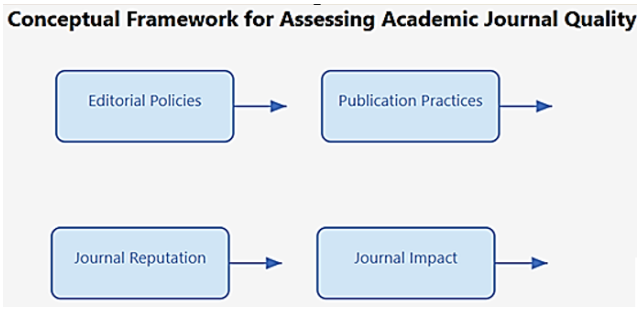

Figure 1: Conceptual framework for assessing academic journal quality

1. *Editorial Policies:* This includes factors such as the journal's peer-review process, editorial board composition, and ethical publishing guidelines.
2. *Publication Practices:* This encompasses the journal's timeliness of publication, quality of copyediting and typesetting, and adherence to industry standards.
3. *Journal Reputation:* This considers the journal's visibility, longevity, and recognition within the academic community.
4. *Journal Impact:* This evaluates the journal's citation metrics, influence, and prestige within its field of study.

26. Conclusion

The quality and trustworthiness of academic journals are defined by a combination of critical indicators, including rigorous peer review, strong editorial standards, ethical transparency, accessible indexing, robust impact metrics, and clear open access policies. Together, these elements ensure that journals serve as reliable platforms for disseminating credible research and contribute meaningfully to academic and public discourse. By maintaining high standards in editorial integrity, publishing frequency, author support, and transparency in fees, trustworthy journals foster an environment where research is accessible, reproducible, and ethically sound. These indicators not only guide authors and readers in selecting credible sources but also protect the integrity of the scientific record.

As academic publishing continues to evolve, it is essential for journals to adapt to new challenges, such as managing the rise of predatory publishers, addressing disparities in access due to fees, and adopting innovative open access models. The ongoing emphasis on transparency and ethical standards will be vital in maintaining the trust of researchers, institutions, and the public. In the end, trustworthy journals uphold a commitment to quality and inclusivity, advancing knowledge in ways that are transparent, accountable, and globally accessible.

27. Source of Funding

None.

28. Conflict of Interest

None.

References

1. Gasparyan AY, Yessirkepov M, Saule N, Diyanova GD. Publishing Ethics and Predatory Practices: A Dilemma for All Stakeholders of Science Communication. *J Korean Med Sci*. 2015;30(8):1010–26.
2. Wager E, Kleinert S. Responsible Research Publication: International Standards for Authors. *Promot Res Integr Glob Environ*. 2012;35(3):309–25.
3. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLOS Med*. 2009;6(7):1000097.
4. Ware M, Mabe M. The Hague: International Association of Scientific. and others, editor. Technical and Medical Publishers; 2015. p. 181.
5. Council C. COPE Ethical Guidelines for Peer Reviewers; 2017. Available from: https://publicationethics.org/files/Ethical_guidelines_for_peer_reviewers_0.pdf.
6. Björk B, Christer D. Open Access Versus Subscription Journals: A Comparison of Scientific Impact. *BMC Med*. 2012;10:73.
7. Hellauer TR. What Is Open Peer Review? A Systematic Review. *F1000Research*. 2017;6:588.
8. Beall J. Predatory Publishers Are Corrupting Open Access. *Nature*. 2012;489(7415):179.
9. Hirsh JE. An Index to Quantify an Individual's Scientific Research Output. *Proc Natl Acad Sci U S A*. 2005;102(46):16569–72.
10. Tennant JP, James M, Dugan D, Graziotin DC, Jacques F, Waldner D, et al. A Multi-Disciplinary Perspective on Emergent and Future Innovations in Peer Review. *F1000 Research*. 2017;6:1151.
11. Puljak L, Wael D. Predatory Publishing in Academic Journals: Global Prevalence and Perceptions Among Researchers. *Health Inf Lib J*. 2020;37(2):95–103.
12. Shamseer L, Moher D, Maduekwe O, Turner L, Barbour V, Burch R. Potential Predatory and Legitimate Biomedical Journals: Can You Tell the Difference? A Cross-Sectional Comparison. *BMC Med*. 2017;15(1):28.
13. Mulligan A, Hall L, Raphael E. Peer Review in a Changing World: An International Study Measuring the Attitudes of Researchers. *J Assoc Inf Sci Technol*. 2013;64(1):132–61.
14. Smith R. Peer Review: A Flawed Process at the Heart of Science and Journals. *J Royal Soc Med*. 2006;99(4):178–82.
15. Sugimoto CR, Larivière CV, Ni Y, Gingras B. Journal Acceptance Rates: A Cross-Disciplinary Analysis of Variability and Relationships with Journal Measures. *J Inf*. 2013;7(4):897–906.
16. Noorden RV. Open Access: The True Cost of Science Publishing. *Nature*. 2013;495(7442):426–9.
17. Bohannon J. Who's Afraid of Peer Review? *Science*. 2013;342(6154):60–5.
18. Severin A, Low N. Readers Beware! Predatory Journals Are Infiltrating Citation Databases. *Int J Pub Health*. 2019;64(8):1123–47.
19. Pourret O, Hursthouse A, Irawan D, Johannesson KH, Liu H, Pause M. Open Access Publishing Practice in Geochemistry: Overview of Current State and Look to the Future. *Heliyon*. 2020;6(11):5230.

Author's biography

Nikita Paliya, Course Co-ordinator https://orcid.org/0009-0007-6378-2723

Shiva Shankar Jha, Chairman https://orcid.org/0000-0002-3113-9465

Cite this article: Paliya N, Jha SS. Quality indicators for academic journals: What makes a journal trustworthy?. *IP Indian J Anat Surg Head, Neck Brain* 2024;10(4):83-91.