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ESTRATÉGIAS PARA DISTINGUIR UMA REVISTA CREDÍVEL DE UMA PREDATÓRIA: REVISÃO NARRATIVA COM ANÁLISE DE SIMILITUDE

STRATEGIES FOR DISTINGUISHING A REPUTABLE FROM A PREDATORY JOURNAL: NARRATIVE REVIEW WITH A SIMILITUDE ANALYSIS

ESTRATEGIAS PARA DISTINGUIR UNA REVISTA REPUTADA DE UNA DEPREDADORA: REVISIÓN NARRATIVA CON ANÁLISIS DE SIMILITUDES

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RESUMO

Introdução: As revistas predatórias são vistas como uma ameaça global tanto para a ciência como para os investigadores e consumidores finais dos resultados da investigação.

Objetivo: Descrever as estratégias para distinguir uma revista credível de uma revista predatória.

Métodos: Revisão narrativa, baseada na Scale for the Assessment of Narrative Review Articles. Para a pesquisa de evidência, foi considerada a base de dados PubMed, justificada pela taxa de alcance. O processo de seleção e extração de dados foi conduzido por um investigador. Para além da síntese narrativa, foi utilizado o software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionneires (IRAMUTEQ) para sintetizar os dados.

Resultados: Antes da submissão dos resultados de investigação para publicação numa revista, os investigadores devem: analisar e verificar as caraterísticas da revista; verificar as listas disponíveis de revistas predatórias e as listas disponíveis de revistas credíveis; utilizar ferramentas ou plataformas ou chekclists para verificar se uma revista é credível; ignorar e não subscrever e-mails que prometem publicações rápidas e conferências fictícias.

Conclusão: Este artigo oferece uma visão clara das estratégias para distinguir uma revista predatória de uma credível, apoiando os investigadores na divulgação da sua investigação de forma transparente e credível. Para além de abordagens educativas aos investigadores sobre estas estratégias, sugere-se uma ação de colaboração entre académicos e equipas editoriais, e políticas de ensino superior/investigação.

Palavras-chave: revistas predatórias como assunto; publicações periódicas como assunto; políticas editoriais; ciência da informação.

ABSTRACT

Introduction: Predatory journals are seen as a global threat to science, researchers and the end users of research results.

Objective: To describe the strategies for distinguishing a reputable from a predatory journal.

Methods: Narrative review, based on the Scale for the Assessment of Narrative Review Articles. For the search for evidence, the PubMed database was considered, justified by the guaranteed coverage rate. The data selection and extraction process were conducted by a researcher. In addition to narrative synthesis, the Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionneires (IRAMUTEQ) software was used to synthesize the data.

Results: Before submitting their research results for publication in a journal, researchers should: analyze and check the characteristics of the journal; check the available lists of predatory journals and the available lists of reputable journals; use tools or platforms or checklists to check if a journal is reputable; disregard and do not subscribe to emails promising fast publications and sham conferences.

Conclusion: This paper provides a practical and clear overview of the strategies for distinguishing a predatory from a reputable journal, supporting researchers to disseminate their research in a transparent and credible way. Besides educational approaches to researchers on these strategies, collaborative action between academics and editorial teams, and higher education/research policies is suggested.

Keywords: predatory journals as topic; periodicals as topic; editorial policies; information science.

RESUMEN

Introducción: Las revistas depredadoras se consideran una amenaza global tanto para la ciencia como para los investigadores y los consumidores finales de los resultados de la investigación.

Objetivos: Describir las estrategias para distinguir una revista reputada de una depredadora.

Métodos: Revisión narrativa, basada en la Scale for the Assessment of Narrative Review Articles. Se utilizó la base de datos PubMed para la búsqueda de evidencias, justificada por su alcance. El proceso de selección y extracción de datos fue realizado por un investigador. Además de la síntesis narrativa, se utilizó el software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionneires (IRAMUTEQ) para sintetizar los datos.

Resultados: Antes de enviar los resultados de una investigación para publicación en una revista, los investigadores deben: analizar y comprobar las características de la revista; comprobar las listas disponibles de revistas depredadoras y las listas disponibles de revistas de reputación; utilizar herramientas o plataformas o listas de comprobación para comprobar si una revista es de reputación; hacer caso omiso y no suscribirse a correos electrónicos que prometan publicaciones rápidas y conferencias falsas.

Conclusión: Este artículo ofrece una visión práctica y clara de las estrategias para distinguir una revista depredadora de una de buena reputación, apoyando a los investigadores a difundir su investigación de forma transparente y creíble. Además de planteamientos educativos a los investigadores sobre estas estrategias, se sugiere una acción de colaboración entre académicos y equipos editoriales, y políticas de educación superior/investigación.

Palabras Clave: revistas depredadoras como tema; publicaciones periódicas como asunto; políticas editoriales; diencia de la información.

Introduction

Predatory journals are considered a global threat, which publish studies without complying with the quality verification process, where both readers and researchers are constantly deceived (Grudniewicz et al., 2019; Shen & Shah, 2023). "Predatory journals" is a concept under discussion, however, academics and editors from 10 different countries have worked together to define it: entities that prioritize self-interest over knowledge; these journals are characterized by false or misleading information, deviate from best editorial and publishing practices; they are also characterized by a lack of transparency, the use of aggressive and indiscriminate solicitation practices, and a lack of quality criteria (Grudniewicz et al., 2019).

The concept of "predatory journals" was first explored by the author Beall (2010), in an analysis he conducted about editors who adopted bad scientific practices. This author's analysis provided an overview of different open access publishers that used the "author pays" model, giving the Open Access movement a poor reputation. This analysis found a list of journals with no or little content, no identification of the editor or editorial board, and advertising for calls for papers and conferences. The author emphasizes caution when using the term "predatory" because it is difficult to identify these journals. As mentioned above, this term is used to characterize a group of publishers who are exploiting the open access and author-pays model for their own profit, rather than promoting and making knowledge available. These publishers use words like "Academic" and "Scientific" in their names to falsely add alleged legitimacy to their bad practices, work by constantly sending spam emails with calls for articles and invitations to participate in editorial boards and events. In addition, these publishers usually offer poor or no peer review. It should also be noted that none of these publishers guarantee digital preservation, and researchers can lose the content of their articles at any time (Beall, 2010).

In line with these arguments, Grudniewicz et al. (2019) highlight the difficulty of distinguishing a predatory journal from a journal with few resources, because both can be of poor quality, but what really distinguishes the two is that predatory journals have the intention of deceiving. Another author points out that predatory journals manipulate the traditional peer review process for financial profit. It is also reported that the most common practices of these journals include guaranteeing publication of almost all submissions, lack of transparency in publication fees, constant and aggressive solicitation for collaborators/submissions, and imitation of the name of reputable journals (Happe, 2020). Other common practices of these journals are: Retconning (recognized predatory publishers change their brand and offer the same titles under a different name); Publishing bootlegged articles (republish or plagiarize articles from reputable periodicals and pass them on as original work); Hijacked journals (duplicate websites or illegal "clones" of a reputable journal); Questionable conferences (organization of sham conferences, with invitations to speakers and high prices); Selling authorship (sale of articles already accepted and offer of co-authorship) (Shen & Shah, 2023).

Thus, it is considered crucial that all researchers and end consumers of research are informed about the "plague" of predatory publications and publishers and avoid getting involved in any connection with such journals (Happe, 2020). In the same line of thought, what adds complexity to this topic and relevance in knowing how to distinguish a predatory journal from a reputable one is that authors may accidentally submit good quality research to journals they believe to be legitimate, when they are not. This situation, the publication of quality research in predatory journals, generates a waste of research resources, if we consider the countless hours that researchers dedicate to their work, for example from ethical approvals, data collection, writing manuscripts to submission and publication in journals (Munn et al., 2021). Predatory publications also result in a decrease in research funding, which wastes money and resources on research results that have no value for science or society (Shen & Shah, 2023).

In addition to this accidental way of publishing in these journals, there is another side to the story. A mentality that haunts the academic and scientific world, "Publish or Perish", where the quantity of publications is prioritized over their quality. Academic publishing has become an industry, not a constant quest for intellectual evolution for the sake of knowledge development (Leeuw, 2020). Characteristics of these journals such as open access and faster publication, associated with the emerging need for researchers and teachers to be productive in the academic/scientific community, are some of the reasons for their rapid dissemination and constant demand (Martinino et al., 2023). Sharma and Verma

(2018) corroborate these arguments, reporting that many young and inexperienced researchers, as well as renowned researchers, consciously use predatory journals with the aim of publishing with a view to constructing their curriculum vitae (CVs), obtaining jobs, funding for further research, grants and even promotions in their professional careers. In response to this danger, there is a need for collaborative action between researchers, editorial boards, teaching and research institutions, research funding agencies and bibliographic databases to ensure that scientific communication in the most diverse fields of knowledge is conducted ethically and transparently. This argument highlights the need for researchers to have specific skills to distinguish between predatory and reputable journals, disregarding invitations to publish or to serve on the editorial committees of predatory journals (Cobey et al., 2018; Guimarães & Hayashi, 2023; Shen & Shah, 2023).

In the field of health, this is a daunting topic when it comes to promoting health outcomes in the light of the best evidence. It is also evident that without the published literature, we would not have the necessary evidence to implement an evidence-based clinical practice, we would lack the recommendations to inform clinicians about treatment options and political decision-makers about the best health policies (Happe, 2020). In this line of thought, considering that the main objective of health research results is their transfer (active dissemination activities) to the scientific community and to end consumers (citizens and health professionals) and implementation in the clinical context, it is crucial that the process of publishing research is honest, ethical, and transparent.

Considering all the arguments described, it is necessary to support distinguish a reputable from a predatory journal. Thus, the aim of this article is to describe the strategies for distinguishing a reputable from a predatory journal. To answer to this objective, we analysed the scientific literature available on PubMed, justified by its coverage rate (Bramer et al., 2017).

1. Methods

This paper aims to answer to the following question: What are the strategies and criteria for distinguishing a reputable from a predatory journal? As mentioned above, answering this question is considered relevant to support researchers in identifying a refutable journal to disseminate the results of their research, avoiding predatory journals (and all the repercussions that entails, for example dissemination of wrong science and high costs for research teams/organizations).

This is a narrative review study, supported by what is described in the Scale for the Assessment of Narrative Review Articles (SANRA) (Baethge et al., 2019), a simple and widely used tool developed to assess the methodological quality of narrative reviews. The six assessment items of SANRA were considered throughout the manuscript, as follows: (1) Justification of the article's importance for the readership – presented in the Introduction section, highlighting the relevance and significance of the problem addressed; (2) Statement of concrete/specific aims or formulation of questions – detailed in the Introduction and Methods sections, ensuring clarity and focus of the objectives/ questions; (3) Description of the literature search – outlined in this Methods section, including sources, search terms, and inclusion criteria to ensure transparency; (4) Referencing - key arguments are consistently supported by appropriate references throughout the manuscript; (5) Scientific reasoning – careful consideration given to the quality and coherence of the scientific arguments presented in all sections; (6) Appropriate presentation of data – structured and accurate presentation of results in the Findings section, aligning evidence with the objectives.

As inclusion criteria, we considered studies published since 2010 (the year in which the topic "predatory journals" emerged) (Beall, 2010), in Portuguese, English, and Spanish language. All study designs were considered (studies with qualitative, quantitative, mixed, or secondary research approaches).

Considering these inclusion criteria, we opted for a very comprehensive search with the following search expression in PubMed: (("Predatory publication*"[Title/Abstract] OR "Predatory journal*"[Title/Abstract] OR "Predatory publishing"[Title/Abstract]) OR ("Predatory Journals as Topic"[Mesh])) AND (strateg*[Title/Abstract] OR criteria[Title/Abstract]).

As this is a narrative review, we decided to limit the search to one database. However, it is anticipated that many of the manuscripts that meet the inclusion criteria will be considered. This argument is supported by a study carried out by Bramer et al. (2017), which aimed "to determine the optimal combination of databases needed to conduct efficient searches in systematic reviews and whether the current practice in published reviews is appropriate; to analyse the performance of several databases and database combinations in terms of sensitivity and precision". This study found that PubMed has 78,8% of overall recall (the total number of included references retrieved by the databases divided by the total number of included references retrieved by all databases – data obtained by analysing systematic reviews).

The study selection process was conducted by one reviewer, with the support of Mendeley version 1.19.8 (Mendeley Ltd., Elsevier, Netherlands).

Data extraction was carried out by a reviewer using an extraction table consisting of the following data: Authors; Year; Strategies and criteria for distinguishing a reputable from a predatory journal.

To synthesize the data, in addition to the narrative synthesis, we used the software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionneires (IRAMUTEQ). This software allows textual data to be analysed in an understandable way and with a clear visual structure. In this article, it was possible to analyse the textual corpus on the concept of interest extracted from different articles, using basic lexicography- word frequency calculation, and multivariate analysis (namely, similitude analysis) (Camargo & Justo, 2013). Similarity analysis is based on graph theory, a field of mathematics that studies the relationships between objects in each group. So, in IRAMUTEQ, similarity analysis generates a graph representing the connection between words in the text corpus. From this analysis it is possible to infer the structure of the text and the themes of relative importance from the co-occurrence of words (Salviati, 2017).

2. Findings

The PubMed search was conducted on May 27, 2024, and retrieved 80 records. These records were uploaded to Mendeley, where the titles and abstracts were analyzed, and 36 were eliminated. Thus, 44 full texts were analyzed, but only nine explored the focus of this review: strategies for distinguishing a reputable from a predatory journal.

In global, the nine studies retrieved analyzed this issue with different studies and authors, and highlighted/described the following strategies (Berebichez-Fridman & Berebichez-Fastlicht, 2024; Forero et al., 2018; Gasparyan et al., 2016; Happe, 2020; Martinino et al., 2023; Munn et al., 2021; Pamukcu Gunaydin & Dogan, 2017; Rupp et al., 2019; Sharma &Verma, 2018): Analyze and verify the characteristics of the journal (e.g. indexing, editorial team members, review process, clarification of fees); Check available lists of predatory journals and available lists of reputable journals; Use tools or platforms or checklists to check if a journal is reputable; Disregard and do not subscribe to emails promising fast publication and sham conferences.

The Table 1 shows the results of the data extraction about the strategies for distinguishing a reputable from a predatory journal, by study (organized by year of publication- decreasing order).

Table 1 – Strategies for distinguishing a reputable from a predatory journal

Authors and Year	Identified strategies
Berebichez-Fridman and Berebichez-Fastlicht (2024)	Check that the International Standard Serial Number (ISSN) of the journal is correct and that it belongs to the region declared by the journal. If the journal does not have an ISSN or if the location is different, it is recommended that you avoid it. Check if the journal is included in any database of predatory journals. Avoid journals or publishers on lists such as https://predatoryreports.org/ and Beall's list. Check if the journal is a member of the Committee on Publication Ethics (COPE). Predatory journals do not usually follow the ethical guidelines established by COPE. Check that the journal is indexed in Medline. This will confirm that the journal is referenced in the National Center for Biotechnology Information (NCBI). However, some predatory journals have managed to filter themselves into reliable databases. Check if the journal title is included in Web of Science (Institute of Scientific Information- ISI). If the journal is declared open access, look for its name in the Directory of Open Access Journals (DOAJ). Check that the address given by the editor is in the map service. Some predatory publishers use non-existent or incorrect addresses, or addresses in developed countries to appear more credible, although they are based in developing countries. Disregard and be wary of unsolicited emails promising rapid publication of a manuscript on a wide range of topics. Contact the editors. Some editors are included in predatory journals without their consent, so it is important to contact the editors to find out. Use the "Think. Check. Submit" list to make sure you select a reputable journal. It helps researchers identify reputable journals and publishers for their research through a series of practical tools and resources. It is an international initiative that aims to educate researchers, promote integrity and build trust in credible research and publications.
Martinino et al. (2023)	Use an accessible and rigorously updated tool or open access checklist to decide on predatory publishing (editorial boards and data scientists should collaborate and provide a robust open access checklist to determine predatory publishing by academics, academic librarians and universities). Check available indexing- PubMed, MEDLINE, SCOPUS, EMBASE, EBSCO and Thomson Reuters (Clarivate Analytics). Consider the support of librarians and editorial boards to identify predatory journals.
Munn et al. (2021)	Evaluate journals according to an agreed definition and the identified characteristics of predatory journals, for example if the journal is a COPE member, if it adheres to the COPE Core Practices or if it is listed in the DOAJ. Authors can also consult the "Think. Check. Submit" checklist to determine the likely credibility of a journal. Use a checklist to identify a predatory journal. Use a list to identify a predatory journal, for example Beall's list or Cabell's predatory list. Use or combine the use of these lists with lists of reputable journals, such as DOAJ, Journal Citation Reports, Cabell's verified list, as well as subject-specific lists or regional databases.
Happe (2020)	Check the characteristics of the journal: Reputable journals have a peer review process; an editorial board (with experts from the journal's field); follow recognized publication standards, e.g. International Committee of Medical Journal Editors (ICJME) and COPE; are transparent about fees charged; are indexed, e.g. in MEDLINE and Web of Science.
Sharma and Verma (2018)	Use the "Think. Check. Submit" checklist. Consider the following questions: Do you or your colleagues know the journal? Can you easily identify and contact the publisher? Is the journal clear about the type of peer review it uses? Are articles indexed in services that you use? Is it clear what fees will be charged? Do you recognize the editorial board? Is the publisher a member of a recognized industry initiative?
Forero et al. (2018)	Check indexing in well-known, high-quality databases such as Medline, Scopus and Journal Citation Reports. Use the "Think. Check. Submit." which provides several recommendations. Authors should consult the journal's website and review some of the articles published in the journals to assess their quality; Authors should be aware of the major negative effects, for their careers and for global science, of publishing articles in journals that do not have an adequate quality of peer review.
Rupp et al. (2019)	Use "Think. Check. Submit" to distinguish between legitimate and predatory journals. Consider the Scientific and Editorial Quality Assessment described by MEDLINE, which focuses on five critical elements: Scope and Coverage; Editorial Policies and Processes; Scientific and Methodological Rigor; Production and Administration; Impact. Pay attention to the editor and review board members of the journals, the publisher and the overall integrity of each journal (e.g. consider Beall's criteria). Visit the DOAJ, which is a service that follows specific selection criteria to index high-quality, peer-reviewed open access journals.
Pamukcu Gunaydin and Dogan (2017)	Look for the journal in an internet search engine; Use "Think Check Submit" approach; Check Beall's list; Check DOAJ list; Consider the help of a more experienced colleague.

Authors and Year	Identified strategies
Gasparyan et al. (2016)	Consider the lists of predatory journals, for example Beall's List- of Potential Predatory Journals and Publishers. Use "Think. Check. Submit", which was created to help researchers choose reputable journals for their research. Consider the JournalGuide platform, which helps researchers choose the best journal to publish their research.

Through the narrative synthesis, by extracting the results of interest from the above-mentioned studies, it was possible to compile a textual corpus. Using the IRAMUTEQ software, a similarity analysis of the text corpus was conducted (Figure 1).

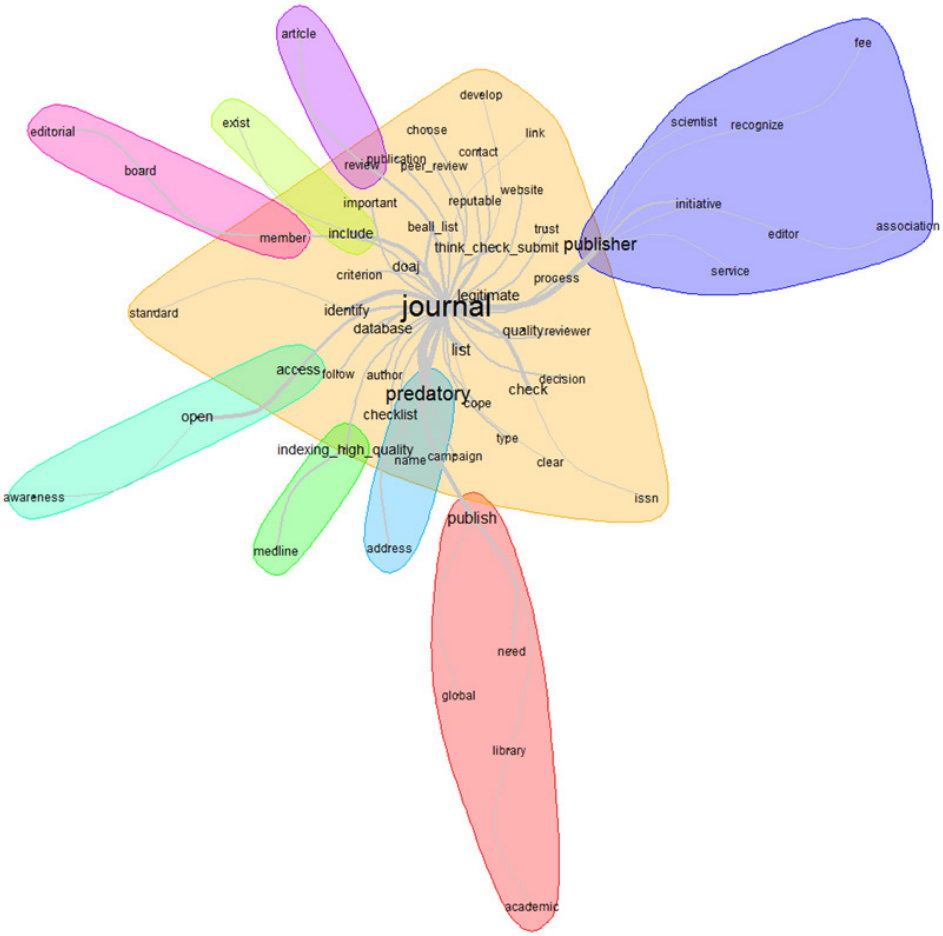

Figura 1 – Similitude analysis

The similarity analysis highlights a central core and eight peripheral systems. Using similarity analysis, it is possible to identify the degree to which the elements in the corpus are related to each other. The relationship established is understood through the size of the edge that connects the terms. In other words, terms that are more strongly related will be connected by thicker edges, while less direct (weaker) relationships are evidenced by thinner edges. The central core includes the following lexicon associated with the word "journal", where the ways of identifying reputable journals are highlighted, namely: consideration of the "Think, Check, Submit" approach; the "DOAJ" and "COPE" criteria; the "Beall's list"; the "quality" of the "reviewer" and "peer-review". Essentially, this core group includes the words "trust", "legitimate", "reputable", and "clear". This strong relationship emphasizes the need for a clear and transparent process for publishing research results.

The strongest link between the central core and the peripheral system is with the lexicon "legitimate", "process" and "publisher", where the peripheral system is made up of the following words: "scientist"; "recognize" and "fee"; "initiative"; "editor" and "association"; and "service". To assure a "legitimate publication process", scientists must "recognize" and clarify the existing "fees", get to know the "editor(ial)" team and not fall (or "association" with) for the "initiatives"/"services" of predatory publishers.

The second strongest peripheral system includes the following lexicon: "predatory"; "campaign"; "publish"; "need"; "global"; "library"; and "academic", which means a "global need" to "campaign" against "predatory publish(ing)", through cooperation between "academic"- "library".

The remaining six peripheral systems are less related to the central nucleus. Essentially, these systems concern the characteristics that distinguish a predatory from a reputable journal, namely checking the "name" and "address" of the journal; checking "high quality indexing" (e.g. in "MEDLINE"); checking the "awareness" to "open access"; knowing the "members of the editorial board"; checking the real "exist(ence)" of the journal; checking it is inclusion in the "DOAJ", checking the credibility of the "article review process".
In summary, the main strategies identified by three or more studies are organized as follows in Table 2.

Table 2 – Main Strategies for distinguishing a reputable from a predatory journal

Main strategies	Authors and Year
Use "Think. Check. Submit" approach	Berebichez-Fridman & Berebichez-Fastlicht (2024); Forero et al. (2018); Gasparyan et al. (2016); Munn et al. (2021); Pamukcu Gunaydin and Dogan (2017); Rupp et al. (2019); Sharma and Verma (2018)
Use lists to identify predatory journals	Berebichez-Fridman and Berebichez-Fastlicht (2024); Forero et al. (2018); Gasparyan et al. (2016); Munn et al. (2021); Pamukcu Gunaydin and Dogan (2017)
Check indexing in databases	Berebichez-Fridman and Berebichez-Fastlicht (2024); Forero et al. (2018); Happe (2020); Martinino et al. (2023); Rupp et al. (2019)
Verify journal's adherence to ethical guidelines (for example, COPE)	Berebichez-Fridman and Berebichez-Fastlicht (2024); Happe (2020); Munn et al. (2021)
Evaluate journal's editorial quality and transparency	Gasparyan et al. (2016); Happe (2020); Rupp et al. (2019)

3. Discussion

From a perspective of discussing the results achieved, from the narrative synthesis and the analysis of the lexicon (similarity analysis), it shows that researchers, before submitting their research results in article format to a scientific journal, should use an appropriate checklist and not just check the lists of predatory/reputable journals. Essentially, the consistency between checking these lists with the checklists was revealed, but without ever forgetting the evaluation of the characteristics of the journals (peer review, editorial team, address, open access policy...). The "Think Check Submit" approach was the most identified in the literature (Berebichez-Fridman & Berebichez-Fastlicht, 2024; Forero et al., 2018; Gasparyan et al., 2016; Munn et al., 2021; Pamukcu Gunaydin & Dogan, 2017; Rupp et al., 2019; Sharma & Verma, 2018), and it is safe to say that it is the gold standard.

This is an international initiative that aims to educate researchers, promote integrity and build trust in credible research and publications. Regarding "Think", the following question emerges: "Are you submitting your research to a trusted journal? Is it the right journal for your work?"; The "Check" section presents the following questions for researchers to examine: "Do you or your colleagues know the journal? Can you easily identify and contact the publisher? Is the journal clear about the type of peer review it uses? Are articles indexed and/or archived in dedicated services? Is it clear what fees will be charged? Are guidelines provided for authors on the publisher website? Is the publisher a current member of a recognized industry initiative?" At the "Submit" phase, it should be noted that the manuscript can only be submitted if you answer "yes" to almost all the questions. To use this checklist, visit: https://thinkchecksubmit.org/journals/ Thus, a multi-strategy approach should be considered (Shen & Shah, 2023).

However, its effective use depends on researchers having both the time and the critical skills to evaluate multiple factors, including peer review processes, editorial transparency, and journal indexing status. This argues that researchers should be trained and empowered in this area.

However, as previously mentioned in the background, another problem haunts education and research: publishing fast to survive. "Publish or Perish", in which the quantity of publications takes priority over their quality (Leeuw, 2020). In many academic contexts, the volume of publications continues to be prioritized over their quality, encouraging risky publication decisions. In particular, early career researchers may feel compelled to prioritize speed over selectivity, increasing their vulnerability to predatory journals. Addressing this problem will require institutional change, including a shift toward evaluating the impact, quality, and integrity of research outputs rather than just their quantity. Editorial changes and changes to the evaluation metrics for both teachers and researchers are needed.

Conclusion

Researchers should know, analyze and check the characteristics of the journal before submitting their research results. These characteristics include the quality of indexing, the characteristics and expertise of the members of the editorial team, the quality and transparency of the submission process, the clarification of submission-publication fees, the commitment to open access, the existence of a location - a real address. In addition to the need to check lists of predatory journals, available lists of reputable journals should also be considered. However, despite the usefulness of these journals, the use of tools or platforms or checklists to check whether a journal is reputable is indispensable (e.g. "Think Check Submit" checklist). Considering the plague that researchers are subjected to in their email spam, they should be wary and disregard any initiatives for the rapid publication of articles, books or other publications.

In this way, this article provides a practical and clear overview of the strategies for distinguishing a predatory from a reputable journal, supporting researchers to disseminate their research in a transparent and credible way, minimizing all the losses associated with public and predatory journals, for example wasted resources, high publication fees, potential disappearance of the article and poor indexing. It is also suggested, in addition to educating researchers to intentionally and consciously avoid publishing in predatory journals, an emerging approach is suggested with those who knowingly publish in them for the ease and speed of curriculum production. All this discussion supports the need to raise awareness of the main purpose of science, which is to produce scientific knowledge that benefits society in general. This approach requires academic, editorial, and politic changes, namely consideration of both quantitative and essentially qualitative metrics in teaching and research careers, and in the evaluation of research units. Finally, regarding limitations, we have analyzed only the existing literature in a single database – Pubmed.

Conflict of interest

The authors have no conflicts of interest to declare.

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