

Assessing the Knowledge and Attitudes of Spanish Early-Stage Academics towards Predatory Journals

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This paper reports on a survey of 198 early career researchers from Spain, which aimed to assess their knowledge and attitudes towards predatory journals. The results revealed that the primary characteristic of predatory journals is their fast acceptance and publication times, while many other features are similar to legitimate journals. The study recommends several actions, including raising awareness and providing mentorship, promoting ethical publishing practices, and allocating resources to early career researchers by academic institutions. The findings highlight the need for better education and support for researchers in identifying and avoiding predatory journals. The study's conclusions have implications for policymakers, academic institutions, and individual researchers seeking to maintain the integrity of scholarly publishing.

1. Introduction

Predatory journals are a growing problem in the academic publishing industry, posing a significant threat to scientific integrity and undermining the credibility of academic research (Gallent-Torres, 2022; Grudniewicz et al., 2019). These journals are characterized by a lack of peer-review or a superficial review process, often leading to the publication of low-quality or fraudulent research. Predatory journals also frequently engage in aggressive marketing tactics, spamming researchers with unsolicited invitations to submit their work or attend conferences (Sureda-Negre et al., 2022).

One of the most significant consequences of predatory journals is the spread of misinformation and pseudoscience. Research published in predatory journals often lacks rigorous scientific standards, leading to unreliable and sometimes dangerous conclusions (Gallent-Torres, 2022). Another major issue with predatory journals is the financial exploitation of researchers (Chalmers and Solomon, 2022). These journals often charge exorbitant publishing fees, without providing any meaningful editorial or peer-review services. In extreme cases, researchers have reported receiving invoices for publication fees for articles they never submitted or for articles that were rejected.

Predatory journals also undermine the credibility of legitimate academic publishing, making it more challenging to distinguish between credible and non-credible sources (Sureda et al., 2022). Researchers must be vigilant in selecting journals for their work, and publishers must work to improve transparency and increase standards for peer-review and editorial practices (Grudniewicz et al., 2019).

One of the biggest risks of publishing in predatory journals is the damage it can cause to a researcher's reputation. Young researchers who publish in these journals may find that their work is not taken seriously by other academics and may struggle to secure funding or employment opportunities. Additionally, if a researcher unknowingly publishes in a predatory journal, it can be difficult to have their work retracted or removed, leading to ongoing damage to their reputation (Bohannon, 2013).

Another risk of predatory journals is the potential for intellectual property theft. These journals often require authors to sign over the copyright of their work, and it may be difficult to ensure that the content is not later used without the author's permission (Shaghaei et al., 2018).

Furthermore, predatory journals and publishers may engage in unethical practices, such as charging fees for services that are not provided or engaging in fraudulent advertising. This can lead to financial loss for young researchers who may not have the resources to pay for these fees or to pursue legal action (Shamseer et al., 2017).

2. Objectives

The main objective of this study is to examine the knowledge and attitudes of Spanish early-stage lecturers, doctoral, and master students towards predatory journals. Specifically, this study aims to:

- Determine the level of awareness among participants regarding the existence of predatory journals and the potential risks associated with publishing in or reviewing for these journals.
- Identify the competence of participants to identify predatory journals and evaluate the quality of academic journals.

3. Methodology

3.1. Participants:

The participants in this study were 198 Spanish early-stage lecturers, doctoral, and master students who completed an online questionnaire about predatory journals.

Procedure:

The online questionnaire used in this study was adapted from the tool developed by Swanberg et al. (2020) in their study on faculty knowledge and attitudes regarding predatory open access journals. The adapted questionnaire was translated into Spanish and distributed to participants prior to their participation on a seminar/workshop on predatory journals conducted by authors in diverse Spanish universities. Participants were informed of the study's purpose and provided with a consent form to sign before beginning the survey.

The survey consisted of questions related to participants' knowledge and experiences with predatory journals, including their awareness of predatory journals, methods used to identify predatory journals, and experiences publishing or reviewing for these journals. The questionnaire also included questions related to participants' opinions on the impact of predatory journals on academic publishing and measures that can be taken to address this issue.

3.2. Data Analysis:

The data collected through the online questionnaire were analysed using descriptive statistics, including frequency and percentage distributions. The responses were organized according to

themes related to participants' knowledge and attitudes towards predatory journals. The data were analysed using SPSS software, version 25.

3.3. Ethical Considerations:

This study was conducted in compliance with the ethical principles of the Helsinki Declaration. Participants were informed of the study's purpose and provided with a consent online form to sign before beginning the survey. The data collected were kept confidential and only used for research purposes. Participants were also informed that they could withdraw from the study at any time without consequences.

3.4. Limitations:

One limitation of this study is the potential for self-selection bias, as only participants interested in the topic and willing to complete the online questionnaire were included. Additionally, the sample size was limited to 198 participants, which may not be representative of the broader population of early-stage lecturers, doctoral, and master students in Spain. Despite these limitations, we understand that this study provides insight into the knowledge and attitudes of our target group towards predatory journals.

4. Results

The results of the study provide important insights into the perceptions and opinions of early-stage researchers in Spain on the characteristics of predatory and legitimate journals. The data presented in Table 1 show that researchers tend to associate certain characteristics with each type of journal, suggesting that they are aware of some of the key differences between them.

Legitimate journals were perceived as being more professional and reliable compared to predatory journals. This is reflected in the participants' responses about the appearance of the journal's website, the presence of a physical mailing address, and the inclusion of an editor and editorial board. These factors are considered to be essential for establishing credibility and quality in academic publishing, which is crucial for building trust among the scientific community.

In contrast, predatory journals were associated with rapid acceptance and publication of articles. This suggests that these journals prioritize quantity over quality and may not follow rigorous peer-review and quality control processes. Additionally, predatory journals were perceived to have higher article processing fees, indicating that they may be more focused on generating revenue than ensuring the quality of the research they publish.

Interestingly, a significant proportion of researchers were unsure about the characteristics of both types of journals or gave the same characteristic to both. This could indicate a lack of knowledge and awareness of predatory publishing practices among early-stage researchers in Spain. This is particularly concerning given the rise in predatory publishing and its potential impact on the integrity and reliability of academic research.

Table 1. Online questionnaire results (n=198) on characterization of legitimate and predatory journals by Spanish early-stage researchers

	Legitimate Journal	Predatory Journal	Neither	Both	Unsure	Blank
Free to read online	25	10	7	128	25	3
Journal website looks professional	42	9	0	127	15	5
Rapid acceptance of articles	4	154	3	17	20	0
Rapid publication of articles	3	142	5	24	21	3

Presence of a physical mailing address	78	8	8	44	58	2
Has an article processing fee (authors are required to pay a fee to have their article published)	20	49	7	82	38	2
Article processing fee seems high	42	53	4	52	45	2
Article processing fee seems low	26	63	15	20	70	4
Has an International Standard Serial Number (ISSN)	88	2	3	77	26	2
Has an editor and editorial board	95	2	4	77	17	3
Affiliation and contact information for editor and/or editorial board members provided	114	3	7	48	23	3
Requires transfer of author copyright prior to publication	24	37	9	52	73	3
Journal is included in major databases (i.e. PubMed, Scopus, JSTOR, PsycINFO, etc.)	142	0	4	37	13	2
Listed in the Directory of Open Access Journals (DOAJ)	61	8	4	55	67	3
Journal has a low impact factor	10	79	17	38	50	4

5. Conclusions

In conclusion, predatory journals pose a significant threat to the integrity and credibility of academic research (Sureda-Negre et al., 2022; Grudniewicz et al., 2019). Researchers and publishers must work together to combat this growing problem and promote rigorous scientific standards. The consequences of inaction are significant, with the potential to undermine scientific progress and jeopardize public health and safety.

The results of this study indicate that Spanish early-stage lecturers, doctoral, and master students have limited awareness of predatory journals and the potential risks associated with publishing in or reviewing for these journals. While some participants were able to identify certain characteristics of predatory journals, many lacked the knowledge and skills necessary to effectively evaluate the quality of academic journals. Furthermore, a small percentage of participants reported having published in or reviewed for predatory journals, suggesting that more needs to be done to raise awareness of the dangers of these journals.

5.1. Recommendations

Based on these findings, we recommend the following measures to prevent early-stage lecturers and postgraduate students from falling victim to predatory journals:

- **Increase awareness:** Academic institutions should develop and implement programs that educate students and faculty about predatory journals and the potential risks associated with publishing in or reviewing for these journals. These programs should also provide students with the skills necessary to evaluate the quality of academic journals.

- Encourage mentorship: Early-stage lecturers and postgraduate students should be encouraged to seek guidance from experienced faculty members when selecting journals for publication or review. This mentorship should include training on how to identify and avoid predatory journals.
- Promote ethical publishing practices: Academic institutions should promote ethical publishing practices by encouraging students and faculty to only publish in reputable journals and by providing guidance on how to avoid predatory journals.
- Develop tools and resources: Academic institutions should develop and provide students with tools and resources that facilitate the identification of predatory journals and the evaluation of the quality of academic journals.
- In conclusion, it is essential that academic institutions take measures to increase awareness and provide resources to help early-stage lecturers and postgraduate students avoid predatory journals. By doing so, we can protect the integrity of academic publishing and ensure that quality research is published in reputable journals.

The findings of this study highlight the need for continued efforts to combat predatory publishing and promote high-quality, credible academic publishing. It is essential for researchers to be aware of the characteristics of predatory and legitimate journals to make informed decisions about where to publish their research and ensure the integrity and reliability of academic research. With the increasing pressure to publish (Gallent-Torres, 2022), early-stage researchers may fall prey to these unscrupulous publishers, leading to unethical practices, wasted resources, and even reputational damage. One way to prevent this is by training young and novel researchers on academic literacy.

Academic literacy refers to the set of skills necessary to read, write, and communicate effectively within the academic context (Guzmán-Simón et al., 20217). It includes critical thinking, research methods, academic writing, and ethical practices. Early-stage researchers who lack these skills may struggle to navigate the publishing world, increasing their vulnerability to predatory journals and publishers.

Training on academic literacy is crucial in preventing researchers from falling prey to predatory publishers. Researchers who understand the importance of quality publications and have the skills to identify reputable journals are less likely to submit their work to predatory publishers. This training should start at the undergraduate level and continue throughout graduate studies and postdoctoral training. It should focus on developing skills in critical thinking, writing, and research, with an emphasis on ethical practices and publication standards.

One way to provide this training is through mentorship programs. Mentors can guide early-stage researchers through the publication process, providing guidance on choosing reputable journals, writing effective manuscripts, and navigating the peer-review process. They can also teach researchers how to identify predatory publishers and avoid falling into their traps.

In addition to mentorship, academic institutions can provide workshops and seminars on academic literacy. These sessions can cover topics such as research methods, academic writing, and ethical practices in research. Workshops can also provide hands-on training in skills such as data analysis and manuscript preparation. Such sessions should include information on the standards for academic publishing, including reputable journals and ethical practices.

Another way to promote academic literacy and avoid predatory journals is by encouraging collaboration and networking among researchers. Collaboration allows researchers to learn from their peers and mentors, gaining new insights into the publication process and identifying reputable journals. Networking also provides opportunities to learn about best practices in research, share resources, and identify potential collaborators.

Overall, training young and novel researchers on academic literacy is essential in avoiding predatory journals and publishers. By providing the necessary skills and knowledge, researchers can navigate the complex publishing world with confidence, identifying reputable journals and avoiding unethical practices.

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Competing interests

Authors declare that they have no competing interests.