## **PROFESSION AND SOCIETY**

# **Study of Predatory Open Access Nursing Journals**

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#### Abstract

**Purpose:** The purpose of this study was to identify predatory journals in nursing, describe their characteristics and editorial standards, and document experiences of authors, peer reviewers, and editors affiliated with these journals.

**Design:** Using two sources that list predatory journals, the research team created a list of nursing journals. In Phase One, the team collected data on characteristics of predatory nursing journals such as types of articles published, article processing charge, and peer review process. In Phase Two, the team surveyed a sample of authors, reviewers, and editors to learn more about their experiences with their affiliated journals.

**Methods:** Data from the review of predatory nursing journals were analyzed using descriptive statistics. Written comments were summarized and categorized.

**Findings:** There were 140 predatory nursing journals from 75 publishers. Most journals were new, having been inaugurated in the past 1 to 2 years. One important finding was that many journals only published one or two volumes and then either ceased publishing or published fewer issues and articles after the first volume. Journal content varied widely, and some journals published content from dentistry and medicine, as well as nursing. Qualitative findings from the surveys confirmed previously published anecdotal evidence, including authors selecting journals based on spam emails and inability to halt publication of a manuscript, despite authors' requests to do so.

**Conclusions:** Predatory journals exist in nursing and bring with them many of the "red flags" that have been noted in the literature, including lack of transparency about editorial processes and misleading information promoted on websites. The number of journals is high enough to warrant concern in the discipline about erosion of our scholarly literature.

**Clinical Relevance:** Nurses rely on the published literature to provide evidence for high-quality, safe care that promotes optimal patient outcomes. Research published in journals that do not adhere to the highest standards of publishing excellence have the potential to compromise nursing scholarship and is an area of concern.

Scholarly journals serve as a vehicle to communicate research findings, disseminate evidence to guide practice and teaching, and share innovations and new ideas. Journal articles provide information to answer specific clinical questions and are the critical link between research and practice, regardless of whether that practice is with patients, students, or other groups. Knowledge disseminated through scholarly journals builds the science base of a field and advances its development.

With the growth of the Internet, significant changes have occurred in scholarly publishing. Years ago journals were available in print form only. Today, many subscription journals now offer parallel electronic versions and frequently publish papers online ahead of print. There also are many journals that are published only online, including some specific to the discipline of nursing. As a result of these changes, a new model of publishing has emerged in the past two decades: open access. Articles published as scholarly open access are freely available via the Internet and not restricted by subscription or behind a paywall (Beall, 2016d). Offering articles in an electronic format, however, does not mean the journal is open access. Most nursing journals are not open access and continue to rely on a subscription model. To access the articles online or in print, individuals or libraries need to subscribe to the journal. Alternatively, readers who do not have access through a library can purchase an electronic version of an individual article for a fee

There are various models of open access. In one, often called gold open access (Harnad et al., 2004), authors pay a fee to the publisher, referred to as an article processing charge (APC), at the time of acceptance of a manuscript in the journal. These fees are what support the journal and its publishing processes, since there are no revenues from subscriptions or advertising. Other aspects of the publishing process, such as peer review, are the same as with a traditional print journal, although the turnaround time for peer review and publication of the article in electronic form is generally shorter. In the green open access model, authors are allowed to archive a manuscript or preprint version of their article in an institutional or other type of repository (Harnad et al., 2004; Shen & Björk, 2015). A hybrid model, in which traditional subscription journals offer open access, enables authors to pay the APC for their article to be freely available on the Internet in the electronic archive of the journal.

Unfortunately, the growth of open access publishing has led to a new phenomenon, termed "predatory publishing" and "predatory journals" (Beall, 2016d), also labeled as pseudo-journals (McGlynn, 2013). Predatory publishers have questionable practices and may be in business only to collect the fees from authors for publishing their articles (Shen & Björk, 2015). These publishers typically charge an APC when the paper is accepted and provide a fast peer review and publication process. However, the peer review is often of low quality, and with some journals, papers are accepted without any peer review at all. Importantly, the articles published in predatory journals may not be digitally preserved. The publishers may be in business for a short period of time, and when they cease publication of their journals, the articles disappear.

Publishers also may falsely claim that articles are indexed in reputable bibliographic databases such as PubMed and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) or misleadingly claim that articles are indexed in what are actually nonindexing or abstracting resources to make their articles appear to be stable and discoverable (Beall, 2015a). As a result, articles in predatory journals are not guaranteed to be available for others to easily locate as part of a literature search. To be indexed in PubMed or CINAHL, or to have a legitimate Thompson-Reuters Impact Factor, journals must complete a detailed application process and meet defined standards, which predatory journals are not able to demonstrate. If there is a claim on the website that a journal is indexed or has an "impact factor" score, typically these claims are either false or refer to fake indexes or scores.

These journals are growing at a fast pace: In 2011, there were 18 predatory open access publishers and now there are 923. In addition, there are 882 standalone predatory scholarly open access journals, up from 126 in 2013 (Beall, 2016a).

## Purpose

No studies have been done of predatory nursing journals. The purpose of this study was to identify predatory journals in nursing and describe characteristics of those journals and articles published in them, including the APCs, peer review and publication processes, and editors and editorial boards. In addition, a survey of authors, reviewers, and editors revealed more about their experiences with their affiliated journals.

# **Literature Review**

The available literature on predatory publishing is relatively small, with the majority centered on editorials, letters, and case studies to bring awareness to the issues concerning these journals and their practices. A few studies have attempted to describe the volume, characteristics, and influence of predatory publishing. The most comprehensive appeared in *BMC Medicine*, describing Shen and Björk's (2015) longitudinal study that examined the volume of predatory publishing. The authors estimated an increase in the number of articles published in predatory journals from 53,000 in 2010 to 420,000 in 2014 and an increase in the number of active predatory journals from 1,800 in 2010 to 8,000 in 2014. About three quarters of the authors published in predatory journals were from Asia and Africa.

Moher and Srivastava (2015) collected all emails that invited Moher to submit manuscripts to various journals over a 1-year period. Comparing the soliciting journals to the list of predatory publishers and journals maintained by Beall (2016b, 2016c), they found that 244 of 311 (78.5%) invitations were from predatory publishers, while the remainder contained predatory qualities, such as poor sentence structure and false claims. More than half (n = 179) of the invitations came from biomedical journals.

If predatory journals cannot be trusted in content or their review processes, what impact are they having on scholarly communication? A few researchers have approached this question from various angles, including citation counts. Nwagwu and Ojemeni (2015) performed a bibliometric analysis on two Nigerian predatory publishers and found that 32 journals had 12,596 citations in Google Scholar, with an estimated 394 citations per journal and 2.25 per paper. Worried about the possible presence of predatory articles in library databases available for student research, Nelson and Huffman (2015) studied the extent to which predatory journals were indexed in three library databases in 2014. They found six predatory journal titles in Gale Academic OneFile (0.04% of its content), 55 titles in EBSCO Academic Search Complete (0.4% of its content), and 299 titles in ProQuest Central (1.4% of its content). The most prominent subject areas of the indexed predatory journals included science (30.5%), medicine/health (21.8%), technology (20.1%), and business (14.2%).

Researchers also have studied the differences between predatory and traditional journals to improve the ability to differentiate between them. Wicherts (2016) developed an instrument to analyze the transparency of the peer review process in predatory, open access, and traditional journals. Raters then analyzed 31 journals and found that publishers of predatory journals had the least transparency of their peer review processes. Markowitz, Powell, and Hancock (2014, June) performed a language analysis of the About Us and Aim or Scope sections of 203 predatory journals and 203 authentic journals for comparison. The predatory journal sections contained more positive language but fewer articles, prepositions, and quantifiers. The authors attributed these differences to predatory publishers' use of deceptive language but did not consider the publishers' countries or languages of origin.

Shen and Björk (2015) identified India as the country with the largest number of predatory publishers. In another study of 214 predatory journals, 72% specified the APC, with the Indian rupee being the most common type of currency followed by the U.S. dollar (Xia, 2015). Xia et al. (2015) examined author profiles in seven pharmaceutical predatory journals and found the majority to be from India, Nigeria, and Pakistan. Most of the authors had never published before, and those who did had fewer than five publications. This raises the question of awareness, which Christopher and Young (2015) addressed in a small study of 145 veterinary and medical authors: only 33 authors (22.7%) were aware of predatory journals. When asked to define them, 22 respondents (15.3%) provided definitions that described predatory journals, while 93 (64.5%) defined poor journal practices not necessarily indicative of predatory publishing.

# Methods

## **Identifying Predatory Nursing Journals**

The research team selected journals with the word "nursing" in the title from Beall's (2016c) list of predatory standalone journals. In addition, the team reviewed the websites of each of the predatory publishers on Beall's (2016b) list to identify journals with "nursing" in the title or "nursing" as a category. Journals removed from the Directory of Open Access Journals (DOAJ) because they were predatory also were considered (DOAJ, 2014a, 2014b). Of those titles, one was no longer open access, one was not in English, and the other three were on Beall's list.

#### **Data Collection**

Data were collected in two phases. In the first phase, the research team developed a data collection form based on Beall's (2015a) criteria for determining predatory publishers. The form was developed to guide the review and assure that the same information was collected from every journal and that missing information about the journal was noted. The form included items about the volume and types of articles published in the journal, APC, the nature of the peer review process, length of time for peer review and publication, indexing claims, country of origin of authors and editorial board members, and information about the editor. Some of Beall's criteria were modified to capture data specific for nursing, such as statements that the journal was indexed in PubMed or CINAHL and whether the editor or members of the editorial board were nurses or were qualified to serve in those roles. The distribution of clinical specialties and topics of articles in each of the journals were recorded. Notes were made about misspelled words and grammatical errors on the journal's website, per Beall's advice that "poorly maintained websites" should be considered cautiously (Beall, 2015a).

Phase One data collection occurred from late December 2015 through mid-February 2016. Members of the team were assigned journal websites to review. Data collected from the review of each journal were recorded on the form. A different member of the research team then reviewed each journal a second time, thereby confirming the accuracy of the data collected about the journal and recorded on the form; if necessary, the information on the form was modified for accuracy.

For Phase Two, conducted in March 2016, the research team developed three surveys, one each for authors, reviewers, and editors who were listed on the journal websites as having nursing credentials. The surveys asked for the respondents' experience with the journal; how they came to be an author, a reviewer, or an editor with this journal; their understanding about the quality of the journal; and their understanding about the nature of the review process. These authors, reviewers, and editors were selected by the research team from the predatory nursing journals identified in Phase One to reflect a variety of publishers and countries, different types of journals, and authors from a diversity of academic settings and countries. The sample included a list of 39 potential participants. Invitations were sent asking the participants to complete a brief online survey, and reminder invitations were sent 10 days later. The study was approved by the authors' university institutional review board.

#### **Data Analysis**

A database for the project was built and maintained in Research Electronic Data Capture (REDCap; Harris et al., 2009). A research assistant entered the data from each form in REDCap and then exported the data for analysis. Continuous variables were described using mean, standard deviation, median, and range (minimum, maximum) and categorical variables with frequency and proportion. Data were analyzed using SAS/STAT software (version 9.3, SAS System for Windows, SAS Institute Inc., Cary, NC, USA, 2010). Survey data from Phase Two were analyzed with descriptive statistics. Written comments were summarized and categorized.

## Results

## Number of Nursing Journals and Publishing Trends

There were 140 predatory nursing journals from 75 publishers, some of which published only one nursing journal while others, such as OMICS International, published many. Predatory journals are new in the nursing literature, with five journals beginning in 2011, six in 2012, nine in 2013, and the majority in 2014 (n = 27, 25.0%) and 2015 (n = 54, 50.0%). There were a few journals that published content prior to 2011, but these were initially from traditional publishers who were then purchased by a predatory open access publisher. The other nursing journals had not yet published any articles. The mean number of years in which predatory nursing journals were published was 2.20 (SD = 1.98).

One important finding was that many of these journals only published one or two volumes and then either ceased publishing or published fewer issues and articles after the first volume. Of the predatory nursing journals identified, 104 published a first volume, but that number decreased to 51 offering a second volume of the journal and only 26 publishing a third. Most of the journals published a median of two issues per volume.

There were 4,238 articles published in predatory nursing journals when the study data were collected. Most (n = 1,138) were published in volume 1 or 2 (n = 906)of the journal. There was a wide variability in the number of articles per issue: the mean number in the first issue of a predatory nursing journal was 11.3 (*SD* = 19.3), which decreased to 6.71 (*SD* = 16.17) in the second issue and continued to decrease with subsequent issues. These journals actively published in the beginning with a burst of articles but then the number declined rapidly.

### **Content of Articles**

The data collection form included identification of the type and content of articles published. One striking finding was the lack of focus of a journal on a particular clinical specialty or area of content regardless of its title. It was common for a predatory journal to publish papers on pediatrics, medical surgical nursing, midwifery, critical care, and nursing education in one issue of the journal. One original intent of this study was to identify the distribution of clinical specialties and other content areas across journals, but most journals published articles on varied clinical specialties and content areas. Some of the nursing journals included articles from other fields such as dentistry and medicine. **Table 1** provides a list of the types of articles in predatory nursing journals.

Table 2. Most Common Article Processing Charges

| Fee (US\$)         | п  |
|--------------------|----|
| 100                | 19 |
| 30-80 <sup>a</sup> | 18 |
| 500                | 15 |
| 400–900            | 14 |
| 200–999            | 12 |
| 300                | 10 |
| 749                | 8  |
| 200                | 7  |
| 99–379             | 6  |
| 75                 | 4  |
| 1,500              | 2  |

<sup>a</sup>Some journals had a range of fees, depending on the type of article, country of the author, or special promotion.

### **Article Processing Charge**

As an open access journal, it is likely that all of the predatory journals had an APC. However, we were only able to locate the APC for 115 of the journals, and it was frequently difficult to find. The APCs ranged from US\$75 (4 journals) to US\$1,500 (2 journals), with the most common fee being US\$100 (19 journals; **Table 2**).

## **Peer Review and Publication Time**

Most journal websites indicated that manuscripts were peer reviewed (n = 94, 67.1%) and described the peer review process (n = 66, 71.7%). However, the legitimacy of the reviews was not clear based on descriptions at the websites. Ten journals indicated that the length of time for peer review was a mean of 2.7 days (SD = 3.2); 36 of the journals described their process as requiring about 3 weeks (M = 3.33, SD = 2.04).

Some journals stated the time from acceptance to publication in days and others in weeks. For journals that specified publication time in days, the mean length of time was 3.47 days (SD = 2.12; 17 journals). Other journals (n = 12) reported their publishing speed in weeks, with a mean of 3.17 weeks (SD = 2.95).

### **Bibliographic Databases in Which Indexed**

Some of the journal websites claimed that the journal was indexed in PubMed (six of the websites), CINAHL (five websites), and EBSCO (six websites). However, when each of these databases was checked, the identified journals were not indexed. For that reason, articles published in a predatory nursing journal may not be easily discoverable through a traditional search. Articles published in a predatory journal might be found through Google Scholar, but even that is not guaranteed if the publisher is not using a journal hosting service or aggregator. Published articles were archived at the journal website. However, it was not clear if the articles were digitally preserved. With many journals publishing for only a short period of time, articles archived at journal websites may not be available beyond the life of the journal.

#### **Country of Authors, Editorial Board, and Editor**

For each of the journals, the research team identified the predominant countries of authors and editorial board members. The majority were from India, followed by the United States. This is likely because India appears to have the largest number of predatory publishers (Shen & Björk, 2015). Less than half (n = 65, 46.4%) of the journals listed an editor, and only 39.6% (n = 21) of those editors were nurses. Because there was limited information on the website about the editors' professional affiliations and qualifications, only a small number were verifiable.

#### **Phase Two Survey Results**

We sent invitations to 19 authors with eight respondents (42.1%), 12 peer reviewers or editorial board members with four respondents (33.3%), and 8 editors with four responses (50.0%).

Author survey results. Of the eight author respondents, six had prior publications, while for two, this was their first published article. For their journal selection process, three authors responded to email invitations, two followed recommendations of colleagues, and two authors were familiar with their selected journals, asserting that they were "well read" and "well known." One author selected a journal based on its past reputation and publisher; unbeknownst to her, it had been bought by a new publisher, which was part of OMICS International, included on Beall's list of predatory publishers (Beall, 2016b).

Authors indicated that their manuscript was peer reviewed by two (n = 3), three (n = 2), or an unknown (n = 3) number of reviewers. Quality of the reviews was rated as "average," with none selecting excellent or poor. Five of the authors reported that they were asked to make revisions to their manuscript. Publication decisions were made within a week (n = 1), a month (n = 5), or 3 months (n = 2). Journal publication occurred within a month (n = 3) or 3 months (n = 4). One author selected "other" but did not indicate the time frame for publication.

Four authors paid an APC, and three did not. One was asked to pay a fee of US\$850 but refused and commented, "I still get emails with them asking for payment." One author commented that the fee was paid "up front"; the others said it was requested at the time the article was accepted or before it was published. One author purchased a "membership" in the publishing company and can now publish a number of articles at no charge. For others, the fee was US\$130 (n = 1) or US\$200 (n = 2). One author was asked to pay a "withdraw" fee of US\$413, which was refused. This article was subsequently published without permission or fee payment. Communication with the editorial office ranged from being *satisfied* (n = 4) to *very unsatisfied* (n = 4); no one was neutral on this issue.

**Peer reviewer or editorial board member survey results.** Of the four peer reviewers or editorial board members who responded, two had no idea that they were listed on the journal website. One respondent wrote, "I didn't realize my name was put on an editorial board for this journal. I never gave them permission." Given that two people did not even know they were listed, they answered "no" to the questions about the process of peer review. The other reviewers were satisfied with the process and believed that their feedback was taken into account in the final editorial decision. One reviewer noted that she was listed as an editorial board member but stated, "I think we are misnamed. We are really only manuscript reviewers."

**Editor survey results.** All four respondents were aware that they were listed as editors of the journal. They indicated they were selected through a review process that included an evaluation of their experience and expertise. There was variation in initial review of the manuscript (with three editors reviewing the manuscripts before peer review), assigning of peer reviewers (with two indicating that was done by the publishing office), and final editorial decision of manuscript acceptance, revision, or rejection (with two replying that they made the final decisions). By and large, communication with the authors, peer reviewers, and the editorial board was handled by the publishing office. None of the editors received any sort of compensation for their work; all indicated that it was totally voluntary.

# Discussion

The findings of this study confirm that predatory journals exist in nursing. While the numbers may seem to be small (140 journals from 75 publishers), if current trends continue, this number will continue to grow. The International Academy of Nursing Editors (INANE) maintains a vetted database of 244 nursing journals; the number of predatory journals is equivalent to 57.3% of the INANE directory, suggesting that predatory publishers are making inroads in the nursing scholarly literature.

The analysis of the journals included in this study affirms that there is no single "red flag" that earmarks a journal or publisher as engaging in predatory and deceptive practices. Rather, there are a number of indicators that nurses can use to perform due diligence when considering a journal as a possible outlet for their scholarship. The practices that are known and common are generally in the categories of deceptive, confusing, or false information about the journal, and lack of adequate editorial processes to assure the integrity of the material published. The unrealistic promise of rapid peer review is a particularly important compromise of editorial integrity; a peer review process by definition requires more time than the claims typically made. The nurse editor and reviewer responses confirmed anecdotal evidence that despite having the names of nurses associated with these journals, the journals lack adequate editorial responsibility and leadership to ensure their quality. Being supportive and encouraging creative initiatives in publishing is a worthy goal, but the practices identified in the journals analyzed are only creative in terms of gain for those who are representing themselves as publishers. These practices compromise the integrity of nursing science and ultimately can lead to serious consequences in clinical practice.

The second phase of this study contributes to an understanding of the dilemmas faced by all who engage in any aspect of publishing in the nursing literature. The findings of this study confirm much of what was suspected through anecdotal evidence. Nicoll and Chinn (2015a) wrote about author responses and consequences of publishing in predatory journals. For example, they described the "pendulum phenomenon" wherein an author's manuscript is rejected by one or two nonpredatory journals; feeling discouraged, the author turns to a journal that invites their submission and without investigating the journal, submits the manuscript with revision based on the prior reviews. Once the manuscript is accepted by the predatory journal, the author discovers the consequences and learns that there is no recourse to withdraw the article. In the survey comments from our respondents, one author noted the published manuscript had been rejected previously by two top nursing research journals. Three of the authors responded to the flattering spam emails that are ubiquitous with predatory publishers, again confirming how authors easily fall prey to these deceptive practices.

Nicoll and Chinn (2015a) also described the "I'm just one person" phenomenon, where someone is associated with a journal without their knowledge, or, if they choose to be associated, they do not see the quality of the journal or its publishing practices as an issue. Interestingly, with the editor surveys, all four editors indicated that they were selected based on their experience and expertise. While this might seem to be a refutation of this principle, the fact that two of four respondents do not make the final editorial decision on publication begs the question of what they perceive their editorial role to be. This is further complicated by the fact that the editors of predatory journals, in general, do not communicate with authors, peer reviewers, and editorial board members. Two reviewers did not know they were listed on the journal website and were disturbed to learn this news; since they did not know they were listed, they did not do peer review. The roles of journal editors and peer reviewers in legitimate journals vary from journal to journal, but these roles always include specific responsibilities that assure the scientific quality and merit of the material published in the journal, and direct involvement in the journal's editorial processes. When people with these titles are not involved in the journal's editorial practices, the entire quality of the peer review process comes into question.

Two author respondents described the "article held hostage" phenomenon (Nicoll & Chinn, 2015a). One author refused to pay the APC, but the article was published anyway. A second author described an ongoing, unsatisfactory communication process with the editorial office to withdraw the manuscript. The author received emails from only one person saying there was no journal contact and no one to speak to. This same person requested a US\$413 "withdraw fee" (which was not paid) to halt publication. Even intervention from the university legal department did not stop the article from being published. The author described the experience as "horrible" and believes it is unethical and borderline illegal.

Beall (2015b) has described predatory publishers who are buying established journals as a way to appear legitimate, to gain access to indexing in databases such as PubMed, and to confuse authors who through past familiarity with the journal may consider it a credible outlet for their article. The experience of one author who was caught in this situation was documented in this study. The author noted, "We contacted the listed editors from major U.S. universities who had no knowledge or contact with the journal since the new publishers took over." This practice also highlights the challenges facing authors to carefully vet a journal prior to submission-if prior editors "come over" to the new journal without their knowledge or consent, what process exists for an author to determine that this has happened? Further, as some predatory publishers expand their empires with multiple businesses working under various names, it is increasingly difficult for authors, many of whom have only a cursory knowledge of the "ins and outs" of publishing, to sort out what exactly is going on.

Nicoll and Chinn (2015a) also discussed consequences of predatory publishing, including lack of indexing, absence of long-term (or even short-term) archiving, and inability of authors to "liberate" their manuscript when it has been published against their wishes. All of these points were confirmed by the evidence in this study.

### Limitations

The results of this study are limited by use of Beall's lists and the DOAJ lists to identify possible predatory nursing journals. In addition, nursing content found in possible predatory journals that were not titled or labeled with the word "nursing" was missed.

# **Summary and Implications**

This study provides evidence that deceptive practices by certain publishers are real. The analysis of the journals revealed common deceptive, misleading, and inadequate editorial practices. The survey of authors, peer reviewers, and editors of these journals provides additional insight into the experience of nurses whose names appear on the websites in some capacity. While the survey respondents' reports were varied and not all experiences with these journals were negative, when viewed in the context of standards that assure the integrity of the literature in nursing, there is ample evidence for concern.

The question remains: what approaches should be taken to mitigate the problems that result from these practices? It is clear that deceptive publications in nursing and other fields are growing and are not likely to disappear. Therefore, it falls to individuals and organizations in nursing to assume responsibility for the quality of nursing literature. At the individual level, authors, reviewers, and editors must be aware of these issues and take action to prevent falling into the traps of deceptive practices. At the organizational level, policies and practices need to be in place to assure that scholarship produced from the institution represents the highest standards of scholarship and publishing.

Authors, in one sense, do the most work and receive the most benefit from a published article; therefore, it is in their best interest to thoroughly review and select a journal for submission. "Journal due diligence" as described by Nicoll and Chinn (2015b) is a systematic process to vet a journal. While it is important to verify the positive attributes of a journal, authors should also be aware of "red flags" such as inclusion on Beall's (2016a) list, poorly designed websites, and lack of transparency about the publisher. The website "Think. Check. Submit." provides a checklist authors can use in the process of selecting a trusted journal (http://thinkchecksubmit.org/). Nicoll (2012) offers helpful worksheets and Oermann and Hays (2016) identify questions for authors to use for a systematic approach to review and vet a journal.

Consulting with colleagues is always wise; authors might also contact members of the editorial board to ask questions about the peer review process and overall professionalism of the journal. Journal due diligence is also a key factor in a successful publication outcome—a poor fit between a journal's focus and article topic is a leading cause of manuscript rejection. Being strategic from the outset will do much to help authors find the best journal option for their manuscripts and avoid predatory publications.

Reviewers and editors contribute to the problem by lending their "good name" to a dubious journal, especially if they do not know their name is being used. Being invited to serve as a peer reviewer, editorial board member, or even editor can be flattering, but before accepting the invitation take time to review the journal and ensure that this is a publication that merits your affiliation and will be a positive addition to your résumé.

Committees, departments, and schools need to accept some responsibility for mentoring and teaching faculty about these issues. Peer review committees should fully vet journals appearing on a candidate's dossier. For faculty who are coming up through the tenure and promotion process, teaching them to understand what types of publications are appropriate is an important role for senior faculty. If a school or department has funds to pay APCs for open access publications, then clear policies should be in place regarding the criteria that will be used to determine disbursement.

## Conclusions

This study confirms the anecdotal evidence that has been published recently, warning nurses about the implications of deceptive publishing practices (INANE, 2014; Nicoll & Chinn, 2015a). Based on this study and other research analyzing the trends in deceptive publishing, these practices are growing in all disciplines and can lead to serious erosion of confidence in the veracity of scientific literature. If nursing is to resist the negative consequences of these practices, individuals and institutions must remain aware of the pitfalls and take action to ensure that legitimate standards of publishing are used to protect the reliability of the literature of the discipline.

## **Clinical Resources**

- International Academy of Nursing Editors: https:// nursingeditors.com/resources/
- Nurse Author & Editor: http://naepub.com/ predatory-publishing/2014-24-3-2/
- Scholarly Open Access: https://scholarlyoa.com
- Think. Check. Submit: http://thinkchecksubmit. org/

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