

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Knowledge and motivations of researchers publishing in presumed predatory journals: a survey
AUTHORS	Cobey, Kelly; Grudniewicz, Agnes; Lalu, Manoj; Rice, Danielle; Raffoul, Hana; Moher, David

VERSION 1 - REVIEW

REVIEWER	Emanuel Kulczycki Scholarly Communication Research Group, Adam Mickiewicz University in Poznań, Poland
REVIEW RETURNED	15-Oct-2018

GENERAL COMMENTS	<p>I have read the paper with much interest. It is an interesting and well-written paper. The study is a well-conducted and valuable one in the area of scholarly communication. The ongoing debates on the predatory journals and other 'predatory areas' of academia are very often limited to presenting "how it is". In general, the previous studies on researchers publishing in predatory journals avoid addressing the question on researchers' motivations (one of the exceptions, i.e. the Kurth's study, is well discussed by the authors).</p> <p>Therefore, it is refreshing and interesting to read a work that shows why the authors publish in the so-called predatory biomedical journals.</p> <p>I believe that the article will be interesting and useful for a wider community of scholars, particularly those dealing with the problems of academic publishing, research integrity, and research evaluation. The results could shed more light on the role of predatory journals in biomedical journals. In my opinion, the article suffers only from minor problems that ought to be addressed.</p> <p>-----</p> <p>The main concern I have is related to a cognitive bias which could shape the researchers' responds.</p> <p>The study is well-designed and the authors have explained the limitations in detail. A low response rate from participants is actually unsurprising. The authors write that their initial survey was not conducted with an optimal temporal relationship to the identified published articles. Moreover, they have mentioned other potential factors which could influence the response rate like English as not the first language of some respondents.</p>
-------------------------	---

	<p>Publishing in predatory journals might be perceived by the researchers (who published in those journals) as a normal practice but also by some other scholars as an unethical behavior. Thus, a cognitive bias (respondent bias) might be very significant in this study.</p> <p>It is important because authors used the existing dataset of 1907 articles for the first sample. Since the moment of conducting the original study (for which this sample was designed), the authors of those 1907 articles had some time to rethink their practices and motivations. In other words: investigating unethical behaviors is a very demanding task. An online survey is a good tool for this. Nonetheless, this challenge should be described and – in my opinion – the authors should highlight a potential bias.</p> <p>The cognitive bias could drive responders in a way that makes them look more ethical to the survey's authors.</p> <p>This type of bias is much more prevalent in questions that draw on a subject's opinion, like when asking a participant to evaluate or rate something, because there generally is not one correct answer, and the respondent has multiple ways they could answer the question. This is crucial in the light on of the question (presented in Table 2): "We believe the journal in which you published may be a predatory journal. When submitting, were you:".</p> <p>The respondents got the information that the authors of survey classified them as 'researchers who published in predatory journals'. It could influence not only a response rate but also responds themselves.</p> <p>I am aware that it is an inevitable part of such studies. However, it is an important context of the study and some limitations related to this bias should be noticed in the paper. It is also important in light of the most striking finding of the survey. Let me explain it in detail.</p> <p>The authors use the Beall's characteristics of the predatory journals, i.e. they call them 'potential, possible, or probable' predatory journals. At the Introduction, the authors listed some of the characteristics of such journals as spamming researchers, offering rapid publications, and conducting frivolous (or no) peer review. The most important feature of such journals is a low quality of peer-review.</p> <p>When we look into the results of the authors' study, we can find that 83.3% of responds received reviews and 79.7% of them acknowledged those reviews as substantial and helpful. The authors have written that to fully understand the respondents' opinions access to reviews is needed.</p> <p>I agree that it is hard to analyze what respondents acknowledge as substantial reviews without accessing them. Nonetheless, I would like to encourage authors to rethink this result in the context of a cognitive bias which could influence respondents' opinions of the peer-review. It could be that respondents have made a post hoc rationalization which results from a cognitive bias.</p>
REVIEWER	<p>Maria Kowalczyk Springer Nature, United Kingdom I work full time for a publisher (Springer Nature).</p>

GENERAL COMMENTS

This manuscript describes results of a survey among the corresponding authors on biomedical articles published in a selection of journals found on Beall's list and in some OMICS journals.

The aim was to understand the motivations and experiences of these authors to help inform policies aimed at preventing publication in predatory journals.

This is an interesting and well described study. However, it suffers from the same problem as the original Beall's list: there are no clear criteria to define a predatory journal. Beall's list contains "potential, possible, or probable predatory scholarly open-access journals". This is a mixed bag of journals and this is reflected in the results of the study: the surveyed authors provided a mixed bag of responses and comments, from admitting they feel duped by the journal to strongly defending the journal as legitimate.

The strong limitation of the study design in my opinion is that it is not possible to say with confidence that all of the analysed journals are predatory. It makes me wonder whether the results of this study tell us something about the authors choosing predatory journals (the study objective), or rather about the quality of Beall's list? I think the mixed opinions of the surveyed authors show that some of the journals are perhaps low quality but not necessarily predatory. Therefore I am not convinced if the conclusions are fully justified by the results.

Major comments:

1. Is it fair to assume that all the analysed journals are predatory?
 - Have the authors performed any independent check or verification whether all of the analysed journals have the characteristics of predatory journals?
 - Could the authors comment on whether they think there may be a possibility that some of the journals you analysed are not in fact predatory?
 - For example, if a given journal does not charge a publication fee, should it be considered predatory?
 - Could some of the surveyed authors be right to defend their journal of choice as legitimate?
2. Do you think you might have got different responses if you did not tell the authors that you believe the journal may be predatory? I.e. if you presented it as an opinion or possibility rather than a certainty, perhaps the author's responses would be less defensive? I am just wondering here about potential bias in authors' responses.
3. You mention a similar survey by Kurt (reference 10 in the manuscript). There has also been a survey of Indian researchers published in CURRENT SCIENCE, VOL. 111, NO. 11, 10 DECEMBER 2016 (https://www.duo.uio.no/bitstream/handle/10852/53426/Current_Science_2016.pdf?sequence=1&isAllowed=y) that may be interesting to discuss in the context of your study.
4. When you collated your list of survey participants, did you check if there were any repeated authors on the list (i.e. the same corresponding author on more than one article)?
5. Did your survey ask the participants about the speed of publication (e.g. time to first decision, to final decision or from submission to publication)? This could also be quite telling regarding the quality of the journal.

Minor comments:

	<p>1. Could you define or describe 'partially responded'?</p> <p>2. You mention a recent study of Italian CVs containing research published in predatory journals. There is also a recent German investigation into that issue (https://www.the-scientist.com/news-opinion/german-scientists-frequently-publish-in-predatory-journals-64518)</p> <p>3. "Social identify threat" - did you mean "social identity threat" (page 5 and page 22)</p> <p>4. References 21 and 22 (page 6) are not on the References list.</p> <p>5. The supplementary materials require permission to access so I have not looked at them.</p> <p>6. Section 'Evaluating Future Journals Prior to Submission', page 18: on the first reading of this section it was not clear to me whether 'this experience' refers to publishing in the journal or to participating in the survey. Please clarify this in the text.</p>
--	--

VERSION 1 – AUTHOR RESPONSE

Reviewer 1	
I have read the paper with much interest. It is an interesting and well-written paper. The study is a well-conducted and valuable one in the area of scholarly communication. The ongoing debates on the predatory journals and other 'predatory areas' of academia are very often limited to presenting "how it is". In general, the previous studies on researchers publishing in predatory journals avoid addressing the question on researchers' motivations (one of the exceptions, i.e. the Kurth's study, is well discussed by the authors).	Thank you.
Therefore, it is refreshing and interesting to read a work that shows why the authors publish in the so-called predatory biomedical journals.	Thank you.
<p>The main concern I have is related to a cognitive bias which could shape the researchers' responds.</p> <p>The study is well-designed and the authors have explained the limitations in detail. A low response rate from participants is actually unsurprising. The authors write that their initial survey was not conducted with an optimal temporal relationship to the identified published articles. Moreover, they have mentioned other potential factors which could influence the response rate like English as not the first language of some respondents.</p>	Thank you for these insightful and helpful comments. We believe we have now addressed this issue by further clarifying in the discussion "It is possible that our results are influenced by cognitive bias given the nature of our questions and the content we are inquiring about, namely, presumed predatory journals. It is difficult to adjust survey responses for such bias. Future surveys as to the motivations for publishing in these journals should

Publishing in predatory journals might be perceived by the researchers (who published in those journals) as a normal practice but also by some other scholars as an unethical behavior.

Thus, a cognitive bias (respondent bias) might be very significant in this study.

It is important because authors used the existing dataset of 1907 articles for the first sample. Since the moment of conducting the original study (for which this sample was designed), the authors of those 1907 articles had some time to rethink their practices and motivations. In other words: investigating unethical behaviors is a very demanding task. An online survey is a good tool for this. Nonetheless, this challenge should be described and – in my opinion – the authors should highlight a potential bias.

The cognitive bias could drive responders in a way that makes them look more ethical to the survey's authors.

This type of bias is much more prevalent in questions that draw on a subject's opinion, like when asking a participant to evaluate or rate something, because there generally is not one correct answer, and the respondent has multiple ways they could answer the question. This is crucial in the light on of the question (presented in Table 2): "We believe the journal in which you published may be a predatory journal. When submitting, were you:".

The respondents got the information that the authors of survey classified them as 'researchers who published in predatory journals'. It could influence not only a response rate but also responds themselves.

I am aware that it is an inevitable part of such studies. However, it is an important context of the study and some limitations related to this bias should be noticed in the paper. It is also important in light of the most striking finding of the survey. Let me explain it in detail.

The authors use the Beall's characteristics of the

develop questions that minimize or avoid cognitive bias.”.

<p>predatory journals, i.e. they call them 'potential, possible, or probable' predatory journals. At the Introduction, the authors listed some of the characteristics of such journals as spamming researchers, offering rapid publications, and conducting frivolous (or no) peer review. The most important feature of such journals is a low quality of peer-review.</p> <p>When we look into the results of the authors' study, we can find that 83.3% of responds received reviews and 79.7% of them acknowledged those reviews as substantial and helpful. The authors have written that to fully understand the respondents' opinions access to reviews is needed.</p> <p>I agree that it is hard to analyze what respondents acknowledge as substantial reviews without accessing them. Nonetheless, I would like to encourage authors to rethink this result in the context of a cognitive bias which could influence respondents' opinions of the peer-review. It could be that respondents have made a post hoc rationalization which results from a cognitive bias.</p> <p>I believe that the article will be interesting and useful for a wider community of scholars, particularly those dealing with the problems of academic publishing, research integrity, and research evaluation. The results could shed more light on the role of predatory journals in biomedical journals. In my opinion, the article suffers only from minor problems that ought to be addressed.</p>	
<p>Reviewer 2</p> <p>The strong limitation of the study design in my opinion is that it is not possible to say with confidence that all of the analysed journals are predatory. It makes me wonder whether the results of this study tell us something about the authors choosing predatory journals (the study objective), or rather about the quality of Beall's list? I think the mixed opinions of the surveyed authors show that some of the journals are perhaps low quality but not necessarily predatory. Therefore I am not convinced if the conclusions are fully justified by the results.</p>	<p>Thank you. We agree with the reviewer that it is important to clearly state the journals may not be predatory. Throughout the paper and survey we have always tried to use "presumed" to reflect this uncertainty (presumed is mentioned at least 14 times throughout the manuscript including three times in the abstract. The word is also mentioned multiple times in the Tables). We used two lists to generate potential survey participants: Beall's and exclusively</p>

	<p>searched OMICS which is regarded more definitively as a predatory publisher. The USA FDA has filed a law suit against OMICS to this effect. We believe that Beall's list, with all its shortcomings' is a starting point. To us, there is no obvious alternative and freely available list to use to study predatory publishing.</p>
Major comments	
<p>1. Is it fair to assume that all the analysed journals are predatory?</p> <ul style="list-style-type: none"> - Have the authors performed any independent check or verification whether all of the analysed journals have the characteristics of predatory journals? - Could the authors comment on whether they think there may be a possibility that some of the journals you analysed are not in fact predatory? - For example, if a given journal does not charge a publication fee, should it be considered predatory? - Could some of the surveyed authors be right to defend their journal of choice as legitimate? 	<p>As mentioned above we cannot guarantee the journals are predatory. We have repeatedly used to term 'presumed' throughout the paper and in the survey to reflect a degree of uncertainty.</p> <p>While it is possible that some journals included in the analysis are not predatory, it is out of the scope of this paper to make this assessment. To date, there is no agreed upon list of characteristics that make a journal predatory, making such an examination extremely difficult in this paper.</p> <p>While it is possible that some surveyed authors may be right in their defense of a journal, we found the number of authors who provided defensive responses to be an interesting result worth reporting, despite our inability to conclude whether this defense is legitimate.</p>
<p>2. Do you think you might have got different responses if you did not tell the authors that you believe the journal may be predatory? I.e. if you presented it as an opinion or possibility rather than a certainty, perhaps the author's responses would be less defensive? I am just wondering here about potential bias in authors' responses.</p>	<p>It is possible. We have now incorporated a further limitation of our results related cognitive bias.</p> <p>It is worthwhile to note that in the survey we stated that "we believe the journal in which you published may be a predatory journal" and throughout the survey we used the term "presumed predatory." This was done to present the predatory nature of the journal as a</p>

	possibility, rather than a certainty. Without language to suggest we think it is predatory, the survey could have been confusing and misleading.
3. You mention a similar survey by Kurt (reference 10 in the manuscript). There has also been a survey of Indian researchers published in CURRENT SCIENCE, VOL. 111, NO. 11, 10 DECEMBER 2016	Thank you. We have now added this to the introduction "Public broadcasters in Germany undertook a review of researchers to determine the presence of German scientists publishing in predatory journals (https://www.thescientist.com/news-opinion/germanscientists-frequently-publish-in-predatory-journals-64518). More than 5000 German scientists were reported as having published papers in predatory journals where the peer review process did not occur. Many of the projects were also receiving public funding."
4. When you collated your list of survey participants, did you check if there were any repeated authors on the list (i.e. the same corresponding author on more than one article)?	Yes, we checked. There were no 'repeat' authors.
5. Did your survey ask the participants about the speed of publication (e.g. time to first decision, to final decision or from submission to publication)? This could also be quite telling regarding the quality of the journal.	No, we did not ask participants about the speed of publication. However, speed did come up organically in the open-ended questions when participants were asked about motivations for publication. Speed was a frequent response.
Minor comments	
1. Could you define or describe 'partially responded'?	We have amended the text to clarify this. It now states: "A total of 82 participants responded to our survey (44 from initial sample, 38 from second sample), although some participants did not complete all items, or chose to skip particular questions.
2. You mention a recent study of Italian CVs containing research published in predatory journals. There is also a recent German investigation into that issue	Thank you. We have now added this to the introduction "Public broadcasters in Germany undertook a review of researchers to determine the presence of German scientists publishing in predatory journals (https://www.thescientist.com/news-opinion/germanscientists-frequently-publish-in-

	predatory-journals-64518). More than 5000 German scientists were reported as having published papers in predatory journals where the peer review process did not occur. Many of the projects were also receiving public funding”.
3. "Social identify threat" - did you mean "social identity threat" (page 5 and page 22)	We have revised the text to “social identity threat” as was intended.
4. References 21 and 22 (page 6) are not on the References list.	Thank you for alerting us to this mixup. It is now corrected.
5. The supplementary materials require permission to access so I have not looked at them.	We have already provided access of all the documents in OSF to Dr. Partridge.
6. Section 'Evaluating Future Journals Prior to Submission', page 18: on the first reading of this section it was not clear to me whether 'this experience' refers to publishing in the journal or to participating in the survey. Please clarify this in the text.	We have now clarified this sentence as “Nineteen participants (23.2%) reported that the experience of publishing in a presumed predatory journal has not changed how they evaluate journals prior to submitting other articles.”.

VERSION 2 – REVIEW

REVIEWER	Emanuel Kulczycki Scholarly Communication Research Group, Adam Mickiewicz University in Poznań, Poland
REVIEW RETURNED	28-Nov-2018

GENERAL COMMENTS	The authors have followed all my suggestions. The paper can be published as it is.
-------------------------	--

REVIEWER	Maria Kowalczyk Springer Nature, United Kingdom I work full time for a publisher (Springer Nature).
REVIEW RETURNED	27-Nov-2018

GENERAL COMMENTS	<p>I would like to thank the authors for responding to the comments in my original review.</p> <p>As I mentioned previously, in my opinion the greatest limitation of this study is that there is a strong possibility that not all of the analysed journals are predatory. Therefore the results are likely a mix of opinions on predatory and legitimate (but perhaps low quality) journals.</p> <p>I still wonder whether the journals that do not require any charges should be considered predatory. The authors mentioned that almost half of the respondents indicated they did not pay an article processing fee so this is a considerable proportion.</p>
-------------------------	--

	<p>Given that there is no agreed definition of a predatory journal I agree that this limitation cannot be overcome at this time. However, I think it should be mentioned in the Discussion among other limitations.</p> <p>I appreciate that the authors have used 'presumed predatory journals' throughout the manuscript and I think it should also be included in the title of the manuscript.</p> <p>I think despite the unavoidable limitations, this manuscript presents an interesting insight into motivations of authors publishing in the presumably or possibly predatory journals and should be published.</p> <p>I would recommend two minor revisions:</p> <ol style="list-style-type: none"> 1. include a limitation that all the analysed journals are necessarily predatory in Discussion 2. include 'presumed predatory journals' in the title
--	--

VERSION 2 – AUTHOR RESPONSE

Reviewer 1	
No comments requiring modifications.	
Reviewer 2	
include a limitation that all the analysed journals are necessarily predatory in Discussion.	<p>We have added “it is unclear whether all of the journals included in our analyses were predatory.” To the discussion.</p> <p>In several other places in the discussion (and throughout the manuscript) the descriptor 'presumed predatory journals' is mentioned.</p>
include 'presumed predatory journals' in the title	We have modified the title to “Knowledge and Motivations of Researchers Publishing in Presumed Predatory Journals: A Survey”.