Predatory and pseudo-scientific journals: It is not always about monetary gain!

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November 27, 2023

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Author contributions – As the sole author of this manuscript, I have contributed substantially to evaluating the data presented (study findings) and manuscript writing. No other individuals were involved in collecting the data and writing the manuscript.

Funding declaration – none received.

Presentation declaration – The legal aspects with the ethical approval of the experiment previously published by the journal and discussed in this manuscript were presented to the Swedish National Board for Assessment of Research Misconduct (Npof), the Örebro University, the Technion-Israel Institute of Technology, and the Örebro County Board. Preliminary data on the JEVTM statistics, among other journals, was presented in 2022 in meetings on publication ethics held in Portugal and Israel.

Conflict of interest statement - The author is acquainted with three of the four researchers of the experiment described in this manuscript (BK, DS, and TH). The author has previously reported other instances of potential research and publication misconduct performed mainly by one of the researchers to the relevant authorities. If it were not for the lenient approach of the relevant authorities, we would likely not be discussing the Journal of Endovascular Resuscitation and Trauma Management’s form of handling scholarly publications since its inaugural issue.

Ethics statement – I am the sole author of this manuscript. No other person contributed. Both informed consent and ethical committee approval are irrelevant in this case. This manuscript was first submitted for publication in the Journal of Endovascular Resuscitation and Trauma Management, allowing them to respond to my concerns. However, they opted not to publish it.

Data Availability statement - Raw data will be provided by the author (i.ashkenazi@yahoo.com).
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Abstract

Endovascular treatment has a central role in the treatment of trauma patients. The Journal of Endovascular Resuscitation and Trauma Management aims to disseminate knowledge and peer-reviewed research in endovascular and hybrid hemorrhage control. Now that the journal has been published for six years, it is time to evaluate how it is managed. A case description of an experiment on pigs published in this journal argues for a new definition for pseudo-journals.

Keywords: Research Ethics; Publication Ethics; Pseudo journals; Animal Experimentation; Peer Review; Trauma

Editorial conflicts of interest impact on fair and unbiased scientific evaluation of submitted manuscripts

In January 2012, Jeffrey Beall launched his blog listing scientific journals which he claimed were sacrificing publication ethics for monetary profit [1]. He identified the pay-to-publish platform as the sphere in which these journals operate. Jeffrey Beall named these publications predatory journals.

The International Committee of Medical Journal Editors (ICMJE) published its position on the topic [2]. The ICMJE notes that numerous publications present themselves as scholarly medical journals yet do not follow accepted procedures. According to the ICMJE, these journals accept and publish most submissions. Though these journals claim they perform proper peer review, this is only sometimes the case. They profit from article processing charges (APCs). In their position paper, the ICMJE adopted the term "predatory journal" but also provided an alternative term: "pseudo-journal". In their position paper, the ICMJE warns us as authors. We are responsible for assessing the ethics and publishing standards of the journal to which we want to submit our research. They warn us against publishing in predatory or pseudo-journals or even citing articles that were published in these journals.

Jeffrey Beall and the ICMJE recognized monetary gain as the primary benefit for predatory and pseudo-journals. However, the financial gain may not be the only reward.

In 2019, the Peruvian Journal of Experimental Medicine and Public Health published a letter to the editor in which the authors accused the journal of "Editorial Endogamy" [3]. According to the Merriam-Webster Dictionary, endogamy is "marriage within a specific group as required by custom or law" [4]. The authors were referring to their finding that a significant proportion of the publications in the journal were either authored or co-authored by editorial board members. Editorial board members appeared as either principal authors or co-authors in 23.2% (38/164) of the original articles published between 2016 and 2019. The time from submission to acceptance was shorter for papers in which an editorial board member was also a co-author.

Fair handling of a submission authored by an editorial board member is one of many conflicts of interest journal editors may confront. Though editorial board members should be allowed to publish their work in their journals, it is all about proportion. In the Peruvian letter to the editor, the authors acknowledge that there is no consensus on the maximum legitimate amount of submissions from editorial board members that a journal could accept. They quote Redalyc, a directory of scientific journals, suggesting that at least 70% of all scholarly work published in each issue must be contributions external to the publishing institution to qualify as credible [5]. The authors also quote Latindex, another directory that suggests accepting up to 50% internal contributions as the maximal limit. Still, the authors of the Peruvian letter to the editor claim that even 23.2% internal contributions are too much. They raise the question of whether a fair and unbiased scientific evaluation of so many publications by editorial board members is possible.
The Journal of Endovascular Resuscitation and Trauma Management (JEVTM)

JEVTM is an open-access journal associated with the Örebro University Hospital. It was first published in 2017. At the time of writing this document, it is in its 7th year of publication. JEVTM is funded by grant (public) money. According to the journal’s objectives, it aims to disseminate knowledge and peer-reviewed research in endovascular and hybrid hemorrhage control [6]. It is indexed in Scopus, Embase and the Web of Science. It does not charge APCs.

Evaluation of 134 submissions to this journal from its inaugural issue to volume 6/issue 3 (editorials, commentaries and perspectives excluded) reveals that 64.2% (86/134) were authored or co-authored by editorial board members (Table 1). This proportion is even higher when only original articles or review articles are considered.

<table>
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<tr>
<th>Table 1 – Editorial involvement as co-authors in manuscripts published by the Journal of Endovascular Resuscitation and Trauma Management (inaugural issue to volume 6/issue 3)</th>
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<tr>
<td>Case reports (n=66)</td>
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<tr>
<td>Original articles (n=36)</td>
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<tr>
<td>Review articles (n=32)</td>
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<tr>
<td>All submissions (n=134)</td>
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*Included in this category are at least 8 manuscripts whose authors have significant relations with the editorial board members (same institution, previous involvement in the editorial board)

Figure 1 presents a histogram of the time between submission to the journal and acceptance for publication (data was missing in one accepted submission). The time interval between submission and acceptance represents the time in which: (1) the peer-reviewed journal’s editorial board prepared the manuscript for handling; (2) independent experts willing to review were recruited; (3) the external review was performed; (4) the peer-reviewers’ recommendations were sent to the authors; (5) the authors revised their manuscript and resent their revision to the journal; (6) the external experts re-evaluated the revised manuscript in selected submissions; (7) the editorial board made a decision to accept the paper.
According to the data from Figure 1, it is questionable whether all published papers in JEVTM underwent proper external/independent peer-review. In addition, since most of the articles were co-authored by editorial board members, it is questionable whether JEVTM can claim to be a legitimate scientific journal.

**Illegitimate experimentation on animals**

It was not surprising that dubious research authored by the Associate Editor, the Editor in Chief, another editorial board member, and a fourth colleague was accepted for publication in JEVTM. The time between submission and acceptance for this publication was only 21 days. The article, published in 2020 (Volume 4, No. 1, 2020, pages 30-32; doi: 10.26676/jevtm.v4i1.113), describes an experiment performed on two pigs. The authors created injuries to the pigs’ diaphragms, and in each of the pigs, they used a different "novel" technique to close the defect temporarily. According to the authors: "No chest re-protrusion was observed for a period of 2 h after completion of the experiment".

Any serious reviewer would have questioned the worthiness of this manuscript to be published. The problem described in this research is uncommon [7]. As the authors admit, these injuries are amenable to simple primary suture-closure. This can be achieved within a similar time period that it took the authors to place their novel temporary alternatives. A serious reviewer would have questioned the validity of the methodology, asking the authors to explain why only two hours were allotted for the evaluation of their novel techniques, while the damage control concept demands temporary solutions to hold on for 24-48 hours (the time necessary to allow resuscitation in the Intensive Care Unit before committing the patient for further surgery). A serious reviewer would have asked the authors to clarify what they meant when they wrote: "No chest re-protrusion was observed for a period of 2 h after completion of the experiment". A serious reviewer would have asked the authors to correct the third sentence in their introduction: "The standard approach to diaphragmatic injuries in a damage-control setting is primary closure, using nonabsorbable heavily interrupted absorbable sutures." (mistakes highlighted). A serious reviewer would have asked why a manuscript describing damage-control techniques on diaphragmatic injuries is being submitted to a journal whose stated aim is "to disseminate knowledge and peer-reviewed research in the field of endovascular and hybrid hemorrhage control" [6].

Last but not least, a serious reviewer would have asked the authors what they meant when they wrote in
their ethics approval: "The study was conducted in the frame of DSTC exercises, as approved by the regional ethical committee; the animals were euthanized immediately after completion of the experiment. The use of animals was according to the ethical rules and regulations of the Swedish government and to EU animal laws." Definitive Surgical Trauma Care (DSTC™) is an educational program. Whether this educational program promotes research in novel techniques within the courses (i.e., exercises) is questionable.

An inquiry and a copy of the manuscript were sent to the DSTC™ International Committee. An investigation was carried out by the International Association of Trauma and Intensive Care (IATSIC), which oversees the DSTC™ courses. Contrary to what the authors wrote in their ethics statement, DSTC™ had nothing to do with this experiment. In her response letter, the President of the IATSIC Executive Committee indicates that the use of the (trade-marked) DSTC course name, seemingly to give credibility to the ethical basis of the circumstances of the procedure being reported on, is extremely regrettable and disappointing (President IATSIC, personal communication, March 18, 2021). She refers to what the authors did as a hijack to cover impromptu "research". She describes the quality and content of this article as not representing a high quality of scientific rigor. Regretfully, IATSIC Executive Committee and the DSTC International Committee did not proceed with a formal complaint as the circumstances clearly demanded.

The fact that DSTC™ had nothing to do with this research raised the possibility that the authors did not obtain formal approval for their experiment. An investigation was launched in Sweden.

The European Union’s regulations demand certain conditions for animal experimentation [8]. The Swedish legislation adjusted itself to this directive in 2013. The regulations clearly state that the project approval should include a detailed project proposal. The project proposal should explain the need for the experiment, should provide a detailed description of the methodology, and should justify the need for animals as research subjects. An animal research ethics committee should review the detailed project proposal. EU’s Article 40 in section 3 clearly states that the project authorization shall be limited to procedures that have been subject to the project’s evaluation. Within the framework of the right of access to information, the four investigators, the Örebro University and the Örebro University Hospital, were asked to provide copies of (1) the detailed project proposal; and (2) its authorization by an ethics committee.

After almost one year, JEVTM Editor-in-Chief (one of the authors) finally conceded to the request and provided partial details on the authorization, claiming the experiment had taken place in 2016. This information allowed access to the full project proposal from the Swedish Board of Agriculture. The document shows that 150 pigs were requested for training in surgical techniques in various surgical specialties. Nothing in the record supports that the pigs will be used in any experiment, specifically no support for the particular experiment the investigators did to evaluate their novel technique to repair huge diaphragmatic injuries. There are specific clauses within the document that need to be filled in case of experimentation, and all these were left empty.

A formal complaint was sent to the Swedish National Board for Assessment of Research Misconduct (Npof). Npof decided not to discuss the case since, according to Swedish law, research misconduct is interpreted as a serious violation of proper scientific practice through fabrication, falsification, or plagiarism committed deliberately or with extreme neglect in the planning, performance, or reporting of research (Npof Registrar, personal communication, October 26, 2022) [9]. The complaint was forwarded to the county administrative board where the Swedish University Hospital is located. It is indeed a pity that unauthorized experimentation on animals in Sweden and the publication of a false ethics statement are not to be considered a serious violation of proper scientific practice.

The county administrative board did not find proof that the authors had legal authorization to perform this experiment. Still, they concluded (Örebro County Administrative Board’s Animal Welfare Inspector, personal communication, February 10, 2023):

"Your complaint regarding the lack of ethical approval and violation of the Swedish Animal Welfare Act, has been closed. Under current Swedish law, a possible offense is time-barred. The limitation period in this case is five years. This means that a possible crime was time-barred in October 2021. The County Administrative
Board cannot therefore investigate the matter further."

The decision not to investigate is clearly inappropriate and immoral. A crime is never "time-barred". The prosecution’s possibilities to prosecute crimes may be "time-barred". All the institutions involved, whether the county board, the Örebro University, and the University Hospital, have a moral responsibility to investigate possible crimes that were committed by their staff or others on their grounds, make the facts known, and take proper disciplinary actions. Even though the facts were made known long ago, both the University and the University Hospital failed to live up to their moral responsibility.

As for the JEVTM, based on a false ethics statement written by the authors that unjustly implicates the DSTC as a partner in a possible crime, it more than justifies the retraction of this manuscript.

Conclusion

The case presented argues for a new definition of pseudo-journals beyond that defined by the ICMJE. Monetary gains are not the only compensation for publications that present themselves as scholarly medical journals yet do not follow accepted procedures. A journal promoting the academic stature of its editorial board members by facilitating their academic publications, including impromptu and unauthorized research on animals, should also be considered.
Aftermath - A copy of this manuscript was submitted to the JEVTM for possible publication but was rejected (Kristofer Nilsson on behalf of JEVTM, personal communication, March 23, 2023). A contrary decision to publish this manuscript in JEVTM would facilitate the Editor in Chief to reply to the allegations directly. Still, JEVTM’s Editorial Board chose otherwise. Copies were also sent to the Vice-Chancellors of the Technion-Israel Institute of Technology and the Örebro University, where the authors of the pigs’ experiment serve as faculty members. While no response was received from the former, the Vice-Chancellor from Örebro University asked the Dean of the Faculty of Medicine and Health to evaluate the facts. In her response letter, the Dean claimed they have no connection with the Journal or the experiment (Dean, Faculty of Medicine and Health, personal communication, April 14, 2023). Her decision should be questioned, since the Editor-in-Chief is a faculty member of that University, and his affiliation in the manuscript detailing the experiment states that clearly. Furthermore, all the Journal’s issues and website state the Journal is produced in cooperation with the Örebro University (Figure 2). In that respect the Dean added new disturbing information. If the Dean’s claim is genuine, JEVTM’s contrary claim might have deceived innocent authors, editorial board members, and organizations such as Scopus, Embase, and Web of Science to believe this Journal is a legitimate scholarly publication. Indifference by the Israeli and Swedish Universities help JEVTM continue inappropriate actions without interference.

Figure 2 – JEVTM’s claim that the Journal is produced in cooperation with the Örebro University
References


