Observational Study

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Enhancing Awareness and Understanding of Predatory Journals: A Delphi-Validated Educational Video

Alessandro Martinino[1,2], Victoria Zecchin Ferrara[3], Justin Ho[4], Rodolfo J. Oviedo[5,6,7], Des C Winter[8], Marlies P. Schijven[9,10,11], Jennifer Isherwood[12], Mithi Ahmed-Richards[12], Steven D. Wexner[13], Raul Rosenthal[14], Sjaak Pouwels[15,16], Frank W.J.M. Smeenk[2,17]

[1] Department of Surgery, Duke University, Durham, North Carolina, USA; [2] SHE School of Health Professions Education, Maastricht University, Maastricht, The Netherlands; [3] Faculty of Medicine and Surgery, University of Padua, Padua, Italy; [4] University of Cambridge School of Clinical Medicine, Addenbrooke's Hospital NHS Foundation Trust, Hills Road, Cambridge, UK; [5] Department of Surgery, Nacogdoches Medical Center, Nacogdoches, TX, USA; [6] University of Houston Tilman J. Fertitta Family College of Medicine, Houston, TX, USA; [7] Sam Houston State University College of Osteopathic Medicine, Conroe, TX, USA; [8] Department of Surgery, St Vincent's University Hospital, Dublin, Ireland; [9] Department of Surgery, Amsterdam UMC, Amsterdam, The Netherlands; [10] Digital Health, Amsterdam Public Health, Amsterdam, The Netherlands; [11] Amsterdam Gastroenterology Endocrinology and Metabolism, Amsterdam, the Netherlands; [12] Taylor & Francis, 4 Park Square Milton Park, Abingdon, UK; [13] Ellen Leifer Shulman and Steven Shulman Digestive Disease Center, Cleveland Clinic Florida, Weston, Florida, USA; [14] Department of Surgery, Cleveland Clinic Florida, Weston, Florida, USA; [15] Department of Surgery, Marien Hospital Herne, University Hospital of Ruhr University Bochum, Herne, NRW, Germany; [16] Department of Intensive Care Medicine, Elisabeth-Tweesteden Hospital, Tilburg, The Netherlands; [17] Department of Education and Research, Catharina Hospital, Eindhoven, The Netherlands

Abstract

Introduction. Predatory journals threaten academic integrity, highlighting the need to educate young researchers on identifying and avoiding them. This study aims to develop and validate an educational video to raise awareness of predatory journals and equip future scholars with essential publishing skills.

Methodology. Between August and November 2024, two Delphi processes were carried out. The first involved validation of the video script, incorporating feedback from 10 experts in academia and publishing. The second focused on refining the audiovisual components with input from two graphic and communication designers. Consensus was established at a threshold of 100% agreement. Additionally, 15 young researchers participated to ensure the video was tailored to the target audience.

Results. The final video was produced following a three-round Delphi process to validate the script and a two-round process to finalize the audiovisual features. Validation by the target audience contributed to enhancing the video's quality and ensuring it was well-tailored to the end users. The final video has a duration of 10 minutes and 42 seconds.

Conclusion. This study developed and validated an educational video to raise awareness of predatory journals. Refined through a rigorous Delphi process and audience feedback, the video meets high standards of clarity and usability, offering a valuable tool for young researchers. Future evaluations will assess its effectiveness. ***Clin Ter 2026; 177 (1):12-22 doi: 10.7417/CT.2026.1970***

Keywords: *Awareness; Delphi validation; Educational Video; Medical education; Predatory Journals*

Corresponding Author: Alessandro Martinino, MD - Department of Surgery, Duke University, Durham, NC, USA.
Email: alessandro.martinino@duke.edu

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Introduction

After 12 hours of discussion, 18 questions, and 3 rounds of deliberation, leading scholars and publishers from ten countries have agreed on a definition of predatory publishing to protect academic scholarship. The consensus definition reached was: "Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices" (1).

The author fee model, introduced to help readers in low and middle-income countries by shifting publication costs from readers to authors, has led to unintended consequences (2). Many journals have began offering low fees, high acceptance rates, and rapid publishing with minimal peer review, compromising the quality of scholarly work (3). In the "publish or perish" academic landscape, the pressure to publish regularly and enhance one's curriculum vitae renders these journals particularly enticing, especially when academic progress is judged more by quantity than quality of publications (4). For this reason, the ongoing pressure to publish sustains predatory practices, and when academic institutions reward prolific output, they reinforce a cycle of pointless and unconvincing research (5,6).

In this context, it is indisputable that greater education and awareness about predatory journals are urgently needed (7). Medical students and young academics should be taught how to recognize and understand the dangers of predatory journals. This education can be delivered through various means, such as workshops, specialized courses, and mentorship programs. Additionally, leveraging social media and online platforms to disseminate information can effectively reach a broader audience. By integrating these educational initiatives into university curricula and professional development programs, we can better equip the next generation of scholars to navigate the academic publishing landscape responsibly.

In this article, we propose producing and validating a video to enhance awareness and understanding of predatory journals. Also, the video will explain the tactics that these journals use to trap researchers and how young researchers can differentiate them from legitimate ones. It is crucial for both writers and readers to identify, avoid, and block predatory publications. We chose to employ an educational video due to its effectiveness and practicality as a teaching tool. Videos provide a favorable cost-benefit ratio, enhance the comprehensibility of information, and allow for repeated viewing of content. They are versatile and can be utilized across diverse educational settings, including classrooms, simulation laboratories, and distance learning environments, to facilitate the acquisition of new knowledge (8,9).

Methods

Objective of the Educational Video

The objective of this educational video is to equip medical students and residents with the skills to identify and avoid predatory journals. This educational video aims to:

- *Inform* about the characteristics and tactics of predatory journals, including how they exploit the academic need to publish, lack rigorous peer-review processes, and often charge high publication fees without providing legitimate editorial services.
- *Promote ethical publishing practices* by educating viewers on the importance of choosing reputable, peer-reviewed journals for their work, thus ensuring the integrity and value of their research contributions to the medical field.
- *Encourage informed decision-making* in the publication process, helping viewers understand the long-term professional consequences of publishing in predatory journals.
- *Foster a culture of accountability* where students and residents are encouraged to consult with mentors and peers, use verified databases, and continuously educate themselves about reputable publishing practices.

By achieving these objectives, the video will contribute to the overall goal of protecting emerging medical professionals from the pitfalls of predatory publishing and supporting their development as ethical contributors to the scientific community.

Script and video production

The script was meticulously designed to adhere to the objectives previously delineated and it was formulated with consideration of the intended audience. Comprehensive research was undertaken to acquire accurate and contemporary information pertinent to the subject matter. All factual information and data were sourced from authoritative references to maintain its educational integrity. The development of the script is based on these references (1,10–16). The script starts with an introduction that includes a compelling hook to capture the audience's interest and an overview of the video's content. The body of the script is structured around sections that logically develop the topic. Each section is written to explain concepts clearly and concisely to facilitate understanding. The script concludes with a summary of the main points covered and a thought-provoking question or a call to action, encouraging further reflection or exploration of the topic.

A review of the literature was conducted to ensure the production of a high-quality educational video. It has been demonstrated that video length is a critical factor in learner engagement, with the optimal duration being between seven to fifteen minutes (8,9). According to a recent study, 50% of viewers watch instructional videos on their smartphones, underscoring the importance of optimizing content for mobile devices (17). Long text should be avoided as it's difficult to read on small screens (17). The video was created using Animaker (Animaker Inc, San Francisco, CA, USA) (18).

Script and video validation

The script and its audiovisual components were assessed using the Delphi technique, a method previously employed in other studies to validate educational videos (19,20). The Delphi technique is an expert evaluation method that

systematically gathers and refines suggestions, criticisms, and opinions through iterative rounds, leveraging insights from each round to foster consensus among examiners (21). This technique offers several benefits: it can be conducted remotely via email, obviating the need for in-person meetings; its anonymous nature prevents any single, opinionated examiner from dominating and influencing group consensus; and it facilitates the aggregation of diverse opinions to achieve expert consensus (21).

Two separate Delphi processes were conducted between August 2024 and November 2024: the first focused on the script, and the second addressed the audiovisual components of the video. In both validation phases, expert consensus was established at a threshold of 100% agreement, meaning that each item in every category received an "approved" decision with a score of "4" from every Delphi member (22). For the script validation, the expert panels consisted of ten individuals (R.J.O., D.W., M.P.S., J.I., M.A., S.D.W., R.R., S.P., F.W.J.M.S., E.D.) representing both academia and the publishing industry, including professors, members of editorial boards (including Editors-in-Chief), and publishers. For the audiovisual components of the video, two graphic and communication designers were involved (T.F., F.C.).

The experts received an email detailing the purpose of the investigation and supplying details on the material to be assessed. Specific criteria were defined for each of the two Delphi processes. The content validation tool for the video script assessed five categories: objectives, content, topics, relevance, and verbal language. Each category included a varying number of items, which were evaluated using a four-point Likert scale (4-strongly agree; 3-agree; 2-disagree; 1-strongly disagree). For the audiovisual components four categories were assessed: functionality, usability, efficiency, and audiovisual technique, each also featuring different numbers of items rated on the same four-point scale. In both Delphi processes, examiners were also given space to provide their opinions and/or recommendations for each item evaluated. After evaluating each item, examiners selected one of three outcomes as their final decision: approved, approved with modifications, rejected.

The final version of the video was produced after achieving consensus among the experts regarding content validity and audiovisual communication.

Video assessment by the target population

Six to twenty people are suggested by different authors for technology/instrument validation (20,23). The inclusion criteria were defined as follows: a) regular enrollment in a medical school or residency program, b) age of 18 years or older, and c) any country of origin. The MEC-U (Medical Research Ethics Committees United) confirmed (reference number W24.185) that the Medical Research Involving Human Subjects Act (WMO) does not apply to our study and does not require official approval. All participants were randomly invited via an electronic address. After consenting to participate in the study they received a private YouTube© link to the educational video. Participants were free to view the video at a time and place of their choosing, ensuring flexibility to accommodate their schedules.

Immediately after watching the video, participants were required to complete the content validation tool for the video. This tool assessed four categories: topics, relevance and effectiveness, clarity and usability, and the video as a whole. Each category comprised a varying number of items, evaluated using a five-point Likert scale. Additionally, space was provided for participants to offer comments, criticisms, or suggestions regarding any aspects they deemed positive or negative, as applicable. A score of 4 or higher on the five-point Likert scale is deemed successful, as it reflects a high level of satisfaction (24). Scores below 4 were carefully addressed to ensure the video was optimized to meet the needs of the target audience.

Statistical analysis

The collected responses from the "Assistive Technology Assessment Questionnaire" were organized and then descriptively analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 27.0 for MacOS (25).

Results

Script and video validation

The evaluation of the video script was conducted across three rounds, assessing objectives, content, topics, relevance, and verbal clarity. By the third round, all categories achieved the highest possible score of 4, reflecting the refinement and optimization of the script (Table 1 and Figure 1). In the objectives category, items such as "conforming to medical education standards," "consistency with proposed objectives," and "achievability" demonstrated steady improvement across rounds. Similarly, the content category, encompassing alignment with study objectives, enhancement of the teaching and learning process, logical organization, and factual accuracy, reached the desired score, confirming its effectiveness. Topics addressed in the script, including characteristics of predatory journals, promotion of ethical publishing practices, encouragement of informed decision-making, and fostering accountability, also met the benchmark. The relevance of images and scenes, initially scoring lower, showed marked improvement to fully support and reflect the topic. Finally, verbal clarity and suitability for the target audience, critical for effective communication, reached the established standard, ensuring the script's overall educational value and impact.

The evaluation of the video script across two rounds assessed functionality, usability, efficiency, and audiovisual technique (Table 2 and Figure 2). Functionality and usability consistently demonstrated strong performance, highlighting the video's effectiveness and accessibility. Efficiency showed improvement, particularly regarding the appropriateness of the video's duration for content comprehension. Audiovisual technique also improved, with enhancements in text clarity and narration quality, ensuring the video effectively conveyed its educational message.

The validated script is provided as supplementary material (Supplementary 1). The final video has a duration of 10 minutes and 42 seconds (Supplementary 2).

Table 1. Mean scores of the items in each category of the tool used to validate the script.

Category	Items	Mean Scores		
		Round 1	Round 2	Round 3
Objectives	The objectives conform to medical education standards.	3.7	3.7	4
	The objectives are consistent with those proposed in the study.	3.5	3.6	4
	The objectives are achievable.	3.6	3.6	4
Content	The content of the script aligns with the objectives proposed by the study.	3.7	3.9	4
	The content enhances the teaching and learning process for the subject.	3.5	3.7	4
	The content is organized in a logical sequence.	3.6	3.8	4
	The script contains accurate facts.	3.5	3.6	4
Topics	The script informs about the characteristics and tactics of predatory journals.	3.7	3.8	4
	The script promotes ethical publishing practices.	3.7	3.8	4
	The script encourages informed decision-making in the publication process.	3.7	3.7	4
	The script fosters a culture of accountability.	3.6	3.7	4
Relevance	The images and scenes accurately reflect the topic discussed.	3.2	3.7	4
	The images and scenes are relevant and help the viewer.	3.2	3.8	4
Verbal	The verbal language is clear to understand.	3.5	3.9	4
	The verbal language is suitable for the target audience.	3.7	3.9	4

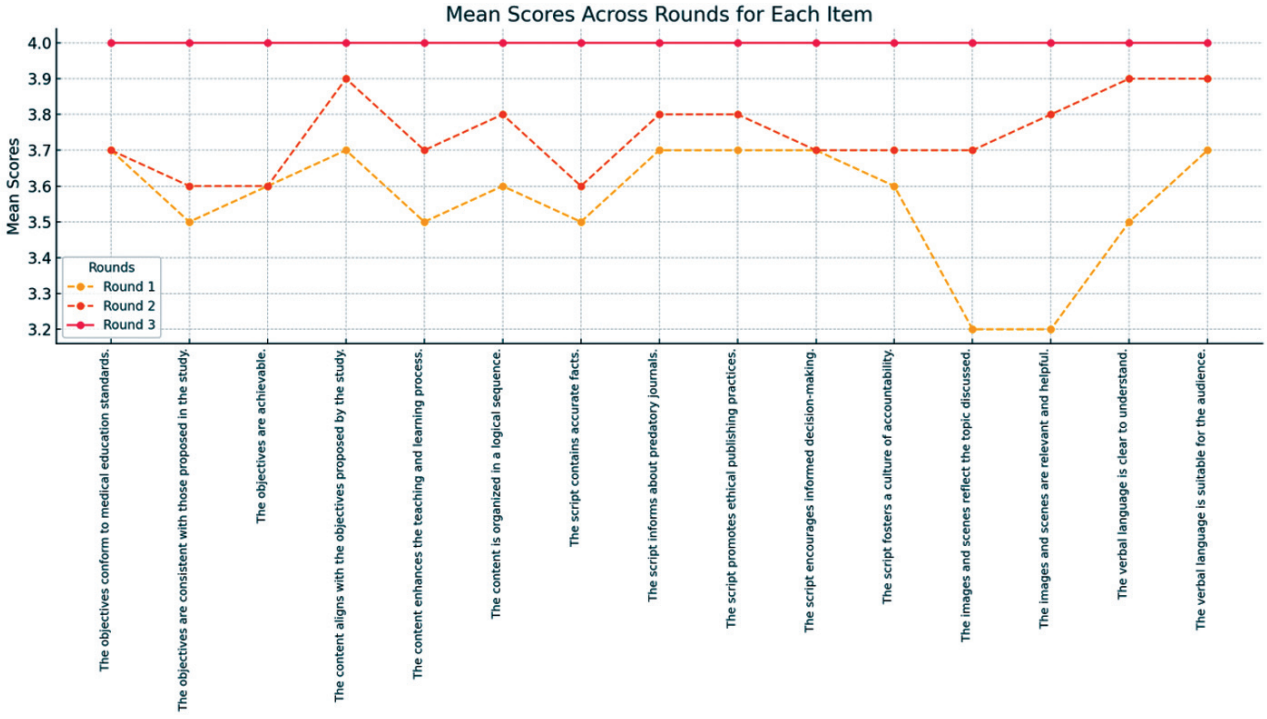

Figure 1. Mean scores of the items in each category of the tool used to validate the script.

Table 2. Mean scores of the items in each category of the tool used to validate the video.

Category	Items	Mean Scores	
		Round 1	Round 2
Functionality	The video serves as an effective tool for its designated purpose.	4	4
	The video stimulates positive outcomes in the educational process regarding the subject matter.	4	4
Usability	Accessibility to the video is straightforward.	4	4
	The platform adequately supports video functionalities.	4	4
	Viewers can revisit any segment of the scenes as needed.	4	4
Efficiency	The duration of the video is appropriate for comprehending the intended content.	3.5	4
	The quantity of scenes aligns with the anticipated duration of the video.	4	4
	The video efficiently delivers key information, maximizing viewer engagement and understanding.	4	4
Audiovisual technique	The illumination is sufficient for viewing the scenes.	4	4
	The text in the video is clearly legible and easily viewed.	3.5	4
	The narrator's tone and articulation are clear and suitable.	3	4
	The narration in the video is employed effectively and is comprehensible to the intended audience.	4	4

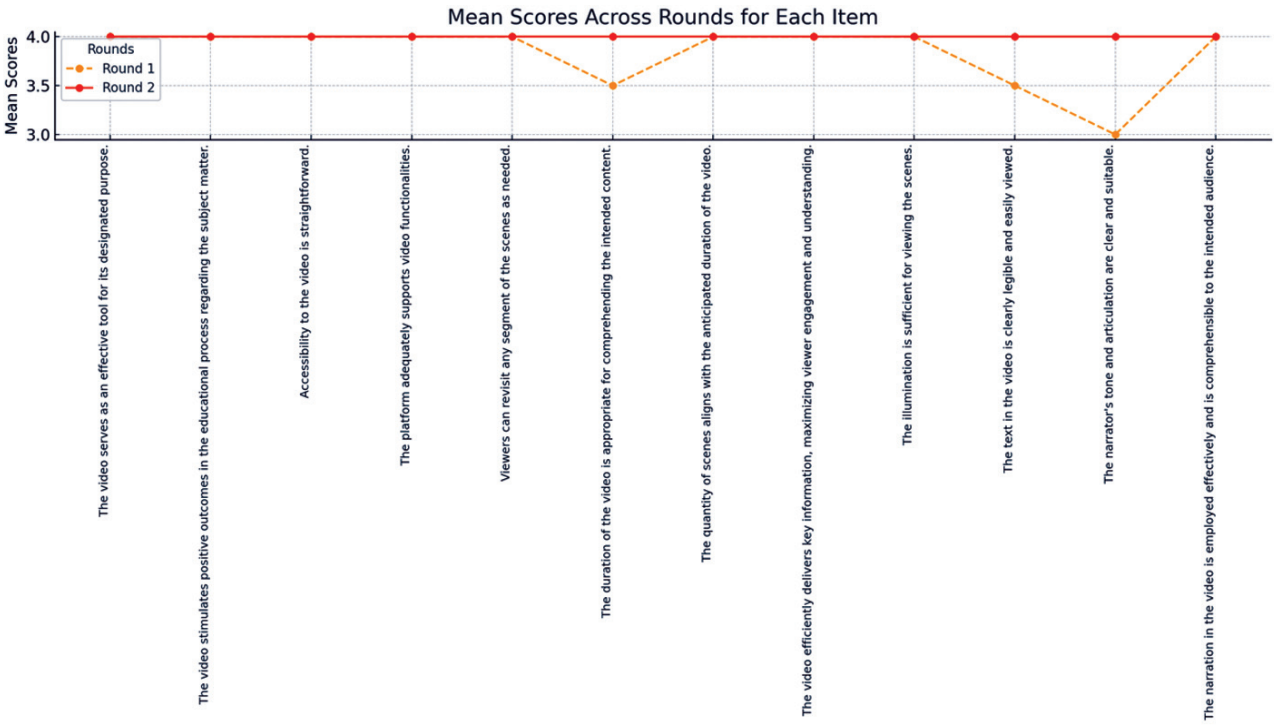

Figure 2. Mean scores of the items in each category of the tool used to validate the video.

Video assessment by the target population

A total of 15 individuals participated in the video assessment, including 13 males and 2 females, with a mean age of 23.8 years (SD = 3.41). The group consisted of 10 medical students and 5 residents, all recruited from Italy (3) and the United Kingdom (12). Participants represented a range of educational backgrounds and clinical experience levels, and the assessment achieved a 100% response rate. The scores for each section are presented in Table 3 and illustrated in Figure 3. The evaluations were supplemented with qualitative comments, which were considered to enhance the video.

Several items in the evaluation achieved a mean score of 4 or higher, indicating successful validation. Under "Topics", all items met the threshold, such as informing about predatory journals (4.53) and promoting ethical publishing practices (4.40). Similarly, "Relevance and Effectiveness" included validated items like "Allows you to reflect on the content presented" (4.00) and "Encourages you to change or adopt new behaviors" (4.33). All items in "Clarity and

Usability" exceeded expectations, with highlights including "Accessibility to the video is straightforward" (4.80).

Items scoring below the threshold of 4 require further attention to better address user needs. In Relevance and Effectiveness, "The information content is tailored to your needs" (3.87) and "Arouses your interest to use the resources provided" (3.87) suggest the need for refinement in tailoring the video to the target audience and enhancing its engagement potential. Additionally, "Provides the appropriate and necessary resources" (3.47) scored the lowest. To address this, we have incorporated the references used to develop the script into the video description. The overall video rating scored 4.20, reflecting a high level of satisfaction.

Table 3. Video assessment by the target population.

Attributes	Items	Mean	SD
Topics	The script informs about the characteristics and tactics of predatory journals.	4.53	0.64
	The script promotes ethical publishing practices.	4.40	0.63
	The script encourages informed decision-making in the publication process.	4.73	0.46
	The script fosters a culture of accountability and support among peers.	4.13	0.64
Relevance and effectiveness	The information content is tailored to your needs.	3.87	0.92
	Provides the appropriate and necessary resources.	3.47	0.99
	Arouses your interest to use the resources provided.	3.87	0.83
	Allows you to reflect on the content presented.	4.00	0.93
	Encourages you to change or adopt new behaviors.	4.33	0.72
Clarity and usability	Presents information in a simple way.	4.67	0.62
	Accessibility to the video is straightforward.	4.80	0.41
	The platform adequately supports video functionalities.	4.80	0.41
	Viewers can revisit any segment of the scenes as needed.	4.80	0.56
Video as a whole	In general, how would you rate the video?	4.20	0.77

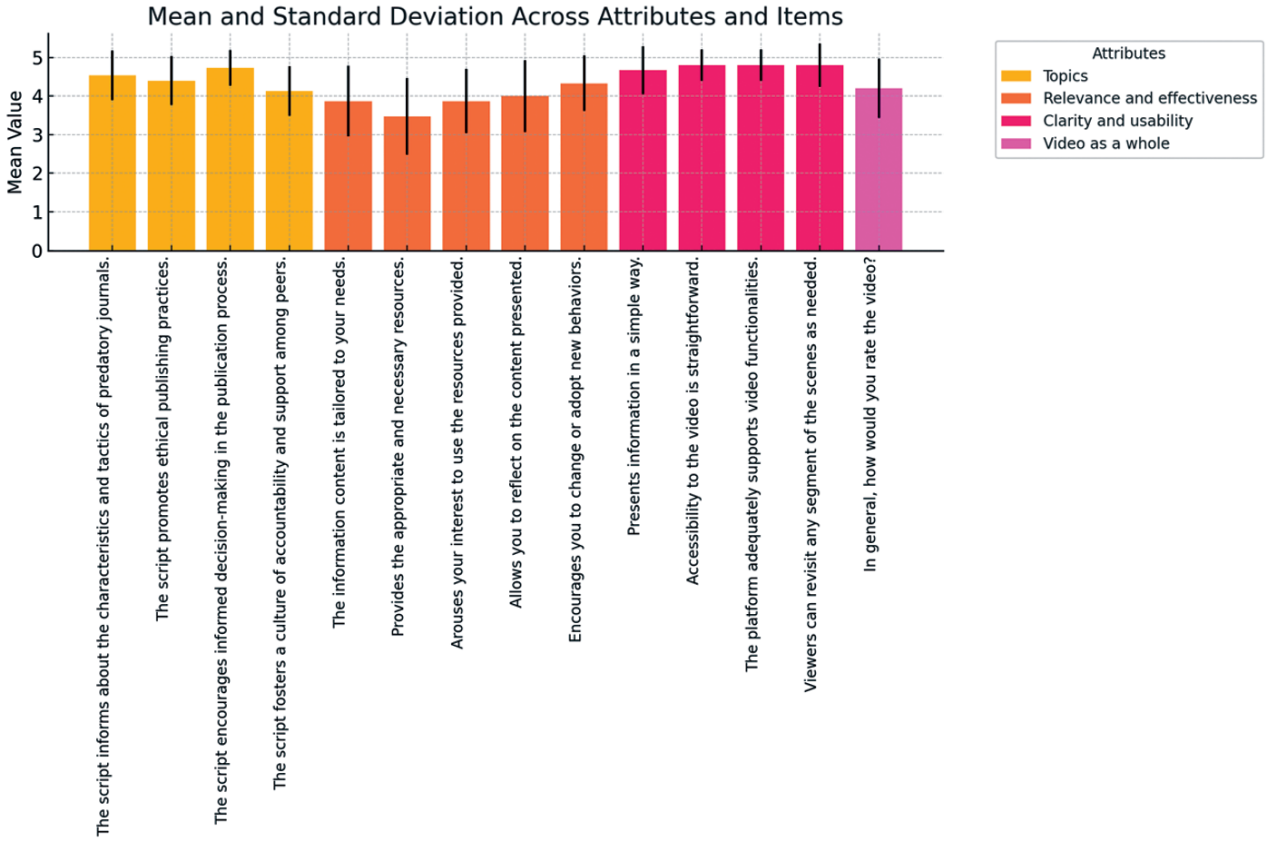

Figure 3. Video assessment by the target population.

Discussion

This paper validates an educational video designed to address and counter predatory journal practices. The video seeks to inform young researchers about the tactics and characteristics of predatory journals, promote ethical publishing practices by emphasizing the importance of reputable journals, and encourage informed decision-making in the publication process. Additionally, it fosters a culture of accountability by encouraging students and residents to consult mentors, collaborate with peers, and rely on verified resources for publishing.

The video was validated through a two-phase Delphi process. The first phase, consisting of three rounds, focused on validating the video script and involved 10 experts from academia and the publishing industry, including professors, editorial board members, and publishers. The second phase, comprising two rounds, validated the audiovisual components of the video and engaged two graphic and communication designers. In both validation phases, expert consensus was established at a threshold of 100% agreement, meaning that each item in every category received an "approved" decision from every Delphi member. Furthermore, a total of 10 medical students and 5 residents participated in the video assessment to ensure it was tailored to the target population.

Predatory journals and their detrimental impact on the scientific community, particularly in undermining research integrity and exploiting authors, have been widely discussed in numerous studies (12,14,21). Over the years, various strategies have been proposed to address this issue, including the creation of blacklists and whitelists, the implementation of institutional and governmental policies promoting ethical publishing, and tools to detect fraudulent publishers (7,26–28). However, as predatory journals continually evolve their tactics to evade traditional safeguards, raising awareness remains one of the most effective and sustainable solutions. Educational initiatives and awareness campaigns are especially crucial for vulnerable groups such as young researchers and early-career academics, who often lack the experience or resources to identify and avoid these exploitative practices (29,30). By equipping these individuals with the knowledge to navigate the publishing landscape responsibly, the scientific community can take meaningful steps toward mitigating the influence of predatory journals and preserving research integrity.

A wealth of research and publications highlights the significant advantages of video content as an effective learning tool (31–34). Educational videos are uniquely suited to presenting complex concepts as they provide clear explanations and visual illustrations that enhance understanding. The combination of audio and visual elements allows creators to effectively convey their goals, shaping the participant's learning experience in a dynamic and engaging way. These features not only improve knowledge retention and engagement but also enable learners to revisit material at their own pace, making video-based learning an impactful method across various educational settings. To the best of the authors' knowledge, while several videos on predatory journals are available online, this is the only one developed through a rigorous Delphi validation process. Given the controversial nature of the topic, the authors prioritized involving a knowledgeable, experienced, and diverse panel of experts to ensure the content's accuracy and reliability.

Three items in the video assessment by the target population received scores below 4. Among these, one issue was addressed by adding references under the educational video, improving resource accessibility. However, the other two items - "The information content is tailored to your needs" and "Arouses your interest to use the resources provided" - are influenced by factors beyond t he video's content itself. These results suggest that young researchers who are not pursuing academic careers or who lack prior exposure to the research world may struggle to recognize the relevance or benefits of learning about this topic. Nonetheless, we believe the video's reach should not be limited to individuals actively involved in research. Instead, it should be promoted as a tool with broad applicability, especially for clinicians who rely on online literature to evaluate specific medical topics. In such contexts, being aware of the potential for articles published without rigorous peer review can help safeguard against misinformation, ultimately protecting patient care.

Study limitations & Future directions

The Delphi process, while valuable for achieving expert consensus, has limitations. Its reliability depends on the selection of a diverse and representative panel, and the subjective nature of responses can introduce bias. Additionally, the findings are often specific to the panel and may lack generalizability. Another limitation is that the rapid evolution of predatory journal practices, with their constantly changing operational techniques, may render the video outdated as new strategies emerge, necessitating regular updates to maintain its relevance. Future validation studies will be conducted to evaluate the video's effectiveness in raising awareness of predatory publishing practices among young researchers.

Conclusions

This study successfully developed and validated an educational video to enhance awareness and understanding of predatory journals. Through a rigorous Delphi process involving experts in academia, publishing, and video-communication, alongside feedback from the target audience, the video was refined to meet high standards of relevance, clarity, and usability. By equipping viewers with practical knowledge about identifying and avoiding predatory journals, this video could serve as a valuable educational tool for young researchers and professionals. Future evaluations will focus on assessing its effectiveness among young researchers**.**

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References

1. Grudniewicz A, Moher D, Cobey KD, et al. Predatory journals: no definition, no defence. Nature. 2019;576(7786):210-212. doi:10.1038/d41586-019-03759-y
2. Schroter S, Tite L. Open Access Publishing and Author-Pays Business Models: A Survey of Authors' Knowledge and Perceptions. J R Soc Med. 2006; 99(3):141-148. doi:10.1177/014107680609900316
3. Martinino A, Puri O, Pereira JPS, et al. The ASGLOS Study: A global survey on how predatory journals affect scientific practice. Dev World Bioeth. Published online August 16, 2023. doi:10.1111/dewb.12421
4. Martinino A, Chatterjee S, Smeenk FW, Pouwels S. Re-branding of Predatory Journals and Conferences: Understanding Its Implication and Prevention Strategy. Cureus. 2023;15(6):e40126. doi:10.7759/cureus.40126
5. Sarewitz D. The pressure to publish pushes down quality. Nature. 2016;533(7602):147-147. doi:10.1038/533147a
6. Abdollahi M, Gasparyan AY, Saeidnia S. The urge to publish more and its consequences. DARU J Pharm Sci. 2014;22(1): 53, 2008-2231-22-53. doi:10.1186/2008-2231-22-53
7. Martinino A, Owen E, Puri O, et al. A Qualitative Study Assessing the Management of Predatory Journals and Their Publishing Activities: Results From the ASGLOS Study. Cureus. 2024;16(2). doi:10.7759/cureus.54189
8. Gaster N, Gaster M. A critical assessment of the h-index. BioEssays. 2012;34(10):830-832. doi:10.1002/bies.201200036
9. Patel VM, Ashrafian H, Almoudaris A, et al. Measuring Academic Performance for Healthcare Researchers with the H Index: Which Search Tool Should Be Used? Med Princ Pract. 2013;22(2):178-183. doi:10.1159/000341756
10. Shen C, Björk BC. 'Predatory' open access: a longitudinal study of article volumes and market characteristics. BMC Medicine. 2015;13(1):230. doi:10.1186/s12916-015-0469-2
11. Singh Chawla D. Predatory-journal papers have little scientific impact. Nature. Published online January 13, 2020. doi:10.1038/d41586-020-00031-6
12. Beall J. Predatory publishers are corrupting open access. Nature. 2012;489(7415):179-179. doi:10.1038/489179a
13. Cukier S, Lalu M, Bryson GL, Cobey KD, Grudniewicz A, Moher D. Defining predatory journals and responding to the threat they pose: a modified Delphi consensus process. BMJ Open. 2020;10(2):e035561. doi:10.1136/bmjopen-2019-035561
14. Lalu MM, Albert MA, Cobey KD. Peering into the dark corners of knowledge synthesis to understand the influence of predatory journals on systematic reviews. J Clin Epidemiol. 2022;152:295-297. doi:10.1016/j.jclinepi.2022.09.005
15. Gasparyan AY, Nurmashev B, Voronov AA, Gerasimov AN, Koroleva AM, Kitas GD. The Pressure to Publish More and the Scope of Predatory Publishing Activities. J Korean Med Sci. 2016;31(12):1874. doi:10.3346/jkms.2016.31.12.1874
16. Munn Z, Barker T, Stern C, et al. Should I include studies from "predatory" journals in a systematic review? Interim guidance for systematic reviewers. JBI Evid Synth. 2021;19(8):1915-1923. doi:10.11124/JBIES-21-00138
17. Beautemps J, Bresges A. What Comprises a Successful Educational Science YouTube Video? A Five-Thousand User Survey on Viewing Behaviors and Self-Perceived Importance of Various Variables Controlled by Content Creators. Front Commun. 2021;5:600595. doi:10.3389/fcomm.2020.600595
18. Animaker. https://www.animaker.it
19. Rossi MB, Baptista RCN, Ohl RIB, Domingues TAM, Barros ALBLD, Lopes JDL. Development and validation of educational videos addressing indwelling catheterization. JNEP. 2018;9(3):109. doi:10.5430/jnep.v9n3p109
20. Magnabosco P, Godoy SD, Mendes IAC, Raponi MBG, Toneti BF, Marchi-Alves LM. Production and validation of an educational video on the use of the Z-Track Technique. Rev Bras Enferm. 2023;76(2):e20220439. doi:10.1590/0034-7167-2022-0439
21. Diamond IR, Grant RC, Feldman BM, et al. Defining consensus: A systematic review recommends methodologic criteria for reporting of Delphi studies. Journal of Clinical Epidemiology. 2014;67(4):401-409. doi:10.1016/j.jclinepi.2013.12.002
22. Lopes JDL, Baptista RCN, Domingues TAM, Ohl RIB, Barros ALBLD. Development and validation of a video on bed baths. Rev Latino-Am Enfermagem. 2020;28:e3329. doi:10.1590/1518-8345.3655.3329
23. Alexandre NMC, Coluci MZO. Validade de conteúdo nos processos de construção e adaptação de instrumentos de medidas. Ciênc saúde coletiva. 2011;16(7):3061-3068. doi:10.1590/S1413-81232011000800006
24. Sullivan GM, Artino AR. Analyzing and Interpreting Data From Likert-Type Scales. J Grad Med Educ. 2013;5(4):541-542. doi:10.4300/JGME-5-4-18
25. IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp.
26. Balakumar P, Jagadeesh G. India: neutralizing temptation by predatory journals. Nature. 2023;621(7979):474-474. doi:10.1038/d41586-023-02912-y
27. Hebrang Grgić I, Guskić M. Croatian scientists' awareness of predatory journals. Int J Educ Integr. 2019;15(1):1-9. doi:10.1007/s40979-019-0041-5
28. VanDenBerg R, Nezami N, Nguyen V, Sicklick JK, Weiss CR. A Solution to Academic Radiology's Experience With Solicitation E-mails From Predatory Journals. American Journal of Roentgenology. 2021;216(1):233-240. doi:10.2214/AJR.20.22923
29. Rajakumar HK. Seductive emails, dangerous consequences: how predatory journals, conferences, and publishers target early-career researchers. Postgrad Med J. Published online November 25, 2024:qgae167. doi:10.1093/postmj/qgae167
30. Decoding Correlations in Predatory Business Practices and Physicians' Strategies Against Daily Predatory Emails | Cureus. Accessed November 27, 2024. https://www.cureus.com/articles/313234-decoding-correlations-in-predatory-business-practices-and-physicians-strategies-against-daily-predatory-emails#!/
31. Natarajan J, Joseph MA, Al Shibli ZS, et al. Effectiveness of an Interactive Educational Video on Knowledge, Skill and Satisfaction of Nursing Students. Sultan Qaboos Univ Med J. 2022;22(4):546-553. doi:10.18295/squmj.2.2022.013
32. Brame CJ. Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content. CBE Life Sci Educ. 2016;15(4):es6. doi:10.1187/cbe.16-03-0125
33. Juhong J, Mordmuang A, Jewboonchu J, Udomwech L. Effectiveness of an online educational video intervention to improve the knowledge and behavior of contact lens care during the COVID-19 pandemic: A pre-test/post-test design. Heliyon. 2022;8(10):e11009. doi:10.1016/j.heliyon.2022.e11009
34. Monteiro Grilo A, Ferreira AC, Pedro Ramos M, Carolino E, Filipa Pires A, Vieira L. Effectiveness of educational videos on patient's preparation for diagnostic procedures: Systematic review and Meta-Analysis. Prev Med Rep. 2022;28:101895. doi:10.1016/j.pmedr.2022.101895

Supplementary 1. Validated Script.

AIM OF THE VIDEO

Narrator:

- The medical field is evolving quickly, and there is often considerable pressure to publish for career advancement in medical training and academia. This ethos is epitomized by the well-known mantra, "publish or perish".
- However, not all journals maintain the high standards of integrity and ethics expected in medical publishing. This video aims to explain how predatory publishing operates and offers guidance on how to avoid it.

WHAT IS PREDATORY PUBLISHING?

Narrator:

- Getting published in reputable journals is challenging due to their low acceptance rates, which are often between 10-20%.
- The difficulty of publishing in reputable journals, along with the pressure to publish for career advancement, creates the perfect conditions for the proliferation of predatory journals.
- Due to these factors hundreds of thousands of papers are now published in predatory journals every year: a 2015 study found that such journals increased their publication output from 53,000 articles in 2010 to around 420,000 in 2014.

Narrator:

- Predatory journals operate on fast, pay-to-publish models, levying various publication fees.
- They approve papers without adequate scrutiny or rigorous peer review, thus undermining the quality and credibility of the research they publish.
- The estimated size of the predatory journal market is $74 million.

ARE THEY REALLY DANGEROUS?

Narrator:

- An analysis of hundreds of articles from "predatory" journals shows that these publications generally receive scant attention from researchers. This is largely because these journals are usually not indexed, making it unlikely that they are read.
- However, PubMed occasionally includes articles from predatory journals due to lapses in indexing criteria, especially as these journals become more convincing.
- Additionally, studies have shown that predatory journals are sometimes included in systematic reviews, which can undermine the review's goal of critically evaluating and synthesizing reliable literature to answer a clinical question.

WHY DO YOU NEED TO PROTECT YOUR RESEARCH?

Narrator:

- Publishing in a predatory journal can severely damage your professional reputation and undermine the integrity of the scientific community. At its absolute worst, it could ultimately compromise the clinical care patients.
- These are some reasons why your academic and professional reputation could be harmed:
- Lack of credibility: publishing in such journals can damage your research credibility, as articles may lack proper scrutiny, leading to doubts about your work's reliability and harming your reputation with peers, employers, and funding organizations.

- Career advancement challenges: academic institutions and hiring committees assess your publications' quality and impact. Publishing in predatory journals can hurt your chances for promotions, grants, or job opportunities.
- Ethical concerns: supporting these journals perpetuates unethical practices, enabling poorly reviewed research to enter the academic record. This compromises the integrity of scholarly work and may negatively impact clinical practice and public well-being.
- Limited visibility and impact: predatory journals usually have limited visibility compared to reputable journals. As a result, your research may not reach the intended audience and potential collaborators.

HOW DO THEY ATTRACT YOU?

Narrator:

- Predatory journals often target researchers through emails, soliciting manuscript submissions, inviting them to review papers, or offering positions on their editorial boards.
- These invitations may seem like normal journal practices. However, there are some red flags to look out for when scrutinizing unsolicited manuscript solicitations.

HOW TO RECOGNISE A PREDATORY JOURNAL?

Narrator:

- Both the emails from predatory journals and their websites could contain red flags to watch for.
- These emails usually address you incorrectly, have multiple typos, incorrect URL hyperlinks and lack professional language and tone. Additionally, they may sound very vague in their invitations with little to no description about the journal, publisher or their practices.
- Refrain from responding to or following up on their emails. If the email doesn't feel right, it likely is not right.
- If you encounter a journal on a website that seems predatory, look for warning signs like fake impact factors, false editorial boards, misleading titles, lack of indexing, vague peer review details, and promises of unusually fast reviews.
- Reputable journals will always be transparent and consistent about their integrity and publication processes on their websites. Researchers can ensure the integrity of their work when choosing where to publish by following these steps:
- Start by conducting a comprehensive search to identify reputable journals in your field. Look for journals that are well-established, have a strong reputation, and are recognized by the academic community.
- Visit the journal's website and evaluate its overall appearance, layout, and content. Legitimate journals typically have well-designed websites with clear submission guidelines, editorial policies, and contact information.
- Scrutinize the journal's website, publication practices, editorial board, policies, acceptance rates, and other publicly available information to assess its legitimacy and quality standards.
- Does the expertise of the editorial board reflect the aims & scope of the journal?
- Look for clear, consistent and detailed policies on copyright, digital preservation, and retractions.
- Examine the journal's indexing and impact factor: check if the journal is indexed in reputable databases, such as Directory of Open Access Journals, PubMed, Scopus, or Web of Science. It is important to note that inclusion in such databases or registries is not a foolproof indicator of quality.
- Assess the journal's publication fees: compare the publication fees with other reputable journals in the field to ensure they are reasonable and justifiable. While predatory journals charge much lower fees ($63–$150), legitimate open access journals may charge more ($800–$4,000) due to their proper editorial services.

- Seek guidance from experienced mentors and advisors: consult with experienced researchers, mentors, or colleagues in your field.
- Search for the journal on social media and search engines. Are there any blog posts or social media posts highlighting the legitimacy of the journal and its practices? Have any researchers posted about negative experiences with them?
- If in doubt, ask the editor! Trustworthy and reputable editors will always respond with clear and extensive evidence and knowledge if asked about their journal.
- Also, keep in mind: all authors share responsibility for the journal to which a manuscript is submitted, not just the submitting author. Encourage your coauthors to review and verify the journal and share their feedback with you before submitting.

WHAT TO DO IF YOUR ARTICLE IS PUBLISHED IN A PREDATORY JOURNAL?

Narrator:

- Prevention is the best strategy: exercise caution and avoid submitting your work to dubious publishers. By doing your research first, you could save yourself a lot of stress and time in the long-term.
- Alert your support network to investigate what your options are: talk to peers, supervisor, librarian, research support staff member, legal advisor, and other contacts who can provide advice and support.
- Politely but firmly inform the publisher that you wish to withdraw your article and do not permit its publication. There should be no withdrawal fee, but removing your article after publication is not always guaranteed and can be difficult.
- Keep all associated communications with suspected predatory publishers (emails, messages, screenshots, invoices, etc.). Be transparent with editors if you later submit any similar or derivative versions of this article to a trustworthy journal.
- Report and share the incident. This can help prevent other colleagues from making a similar mistake.

CONCLUSION

Narrator:

- Predatory and questionable publishing practices are increasingly troubling for researchers and policymakers, making it crucial to identify and avoid them.
- They often solicit researchers for submissions, reviews, or editorial roles and can be identified by spam emails, short deadlines, non-personalized salutations, mismatched research scope, errors, and inconsistent email addresses.
- Publishing in a predatory journal can damage your academic and professional reputation, exploit you financially, and undermine the integrity and quality of the scientific community and your work.

Supplementary 2. Video

https://youtu.be/oUAVdj88mC0