

Recruiting Librarians Experts as Peer-Reviewers: Opportunities, Benefits and Challenges from a Journal Editor Perspective

Network Event of Swiss Medical Librarians

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About me

- Pharmacist and board certified toxicologist, risk assessor, evidence-based practitioner
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Disclosure

No conflict of interest - the views and opinions expressed in the context of this talk are mine alone and do not reflect the views of Elsevier or its affiliated entities

Environment International

Environment International is a high-quality, multidisciplinary open-access journal covering Environmental Sciences, including Public Health, Epidemiology, Risk Assessment, Chemistry, Monitoring, Microbiology, Toxicology, and Technology



Journal citations:
1,426



Average citations per article:
2.32

All data correct at April 2024



Monthly article usage:
744,563



Usage per article:
3,133

2022
CiteScore™
22.0
Powered by Scopus*

2022 Impact Factor*
11.8

*Journal Citation Reports®
(Clarivate Analytics, 2023)

Editorial policy for Evidence Synthesis Methods

- In 2016, EI became the first Environmental Health journal to adopt specialist policies for handling SR submissions
- Appointment of specialist editors for Evidence Synthesis Methods (SR, SEM, ROR, SCR and their protocols)
- **Robust editorial triage pre-review** to ensure only scientifically sound manuscripts are sent to peer-review
- Use of triage instruments (CREST_Tool) for effective, consistent, and transparent enforcement of SR standards



Environment International

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How we promote rigour in systematic reviews and evidence maps at Environment International

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How we enforce our editorial standards: CREST_Triage tool

- Triage is performed by our topic editors using CREST_Triage tool (<https://crest-tools.site/>, <https://osf.io/bv4en>)
- Submissions which pass triage are sent to peer-review (< 10% as per 08/2024)
- All authors receive the editor's triage report to explain our decision (*reject*, *revise pre-review*, *advance to peer-review*) with recommendations on how to meet our requirements
- Process-wise four peer-reviewers are invited per manuscript:
 - 2 subject matter experts (usually non SR)
 - 2 SR methodologists incl. **librarians *ad hoc***

Table 1: Methodological domains assessed using CREST_Triage tool

Triage domain	Focus of editorial assessment
1. Protocol	Reasonable adherence to a pre-published or registered protocol (if applicable)
2. Focus	Focused, unambiguous research question and objectives, based on clear problem formulation
3. Search	Validated, transparent, and reproducible search strategy that does not miss relevant evidence
4. Selection	Unambiguous eligibility criteria and transparent screening process which does not exclude relevant evidence
5. Appraisal	Critical appraisal of the included evidence using a valid instrument
6. Synthesis	Appropriate narrative and quantitative methods for summarizing the evidence
7. Certainty	Systematic assessment of the characteristics of the evidence base as a whole that affects certainty/confidence in the synthesis results

Whaley and Roth. *Env Int* (2022)170:107543

Rationale for recruiting a librarian peer-reviewer

- Overall SR search methodology and reporting quality of submissions remain poor!
 - Problems with the design, implementation, validation, and documentation of search strategies
 - Librarians involved as co-authors to a limited extent, often it is not clear if librarians were involved at all
- Analysis of EI's workflow based on CREST_Triage for the “search” domain (Whaley and Roth 2022):
 - The **reproducibility** of the search strategy was flagged in 33 % of submissions
 - The **sensitivity** of the search strategy was flagged in 54 % of submissions
 - The **lack of validation** of the search strategy was flagged in 45 % of submissions
- In most cases, shortcomings with the search strategy can be easily spotted during editorial triage
- Lack of familiarity amongst peer-reviewers to evaluate sensitivity and bias issues with search strategies
- Need for a librarians / information specialist must be clearly established

Need to secure a librarian? Examples of triggering situations

- Search strategy
 - Complex or seemingly unorthodox use of Boolean operators
 - Broad or meta-research questions (e.g., systematic mapping of environmental and social justice-related impacts of microplastics pollution)
 - Gray literature
- Literature sources
 - Relevance, conceptual coverage of selected sources (specialized electronic databases, gray literature)
- Use of AI/ML software for screening, data management tools
- Method papers
 - Heterogeneity of contexts - performance, comparing subsets of searches using different keyword filtering (e.g., susceptibility factors for EH in epi studies)

Challenges in recruiting librarians as peer-reviewers



- In practice it is very difficult to secure librarians / information specialists for peer-review
- Librarians are not readily identifiable through Elsevier's system (*Editorial Manager*, *SCOPUS author profiles*) - personal network works best!



- Low acceptance rate - high entry barriers due to resources constraints (time commitment, funding/research)
- Motivation - insufficient or no incentives that are worth the intellectual effort



- Lack of subject matter expertise for non-medical topics:
 - Chemistry, toxicology, risk assessment, environmental health
 - Broader research questions and contexts in SEMs and SCRs compared to SRs

Benefits and Opportunities for librarians... and editors

- Support from librarians result in improved quality of published SRs (“sanity check”)
 - Involvement of medical librarians is correlated with higher search strategy and reporting quality (*Rethlefsen et al. J Clin Epidemiol. 2015*)
 - Little is known about librarians involvement in peer-review of SRs submissions (*Grossetta Nardini et al. Res Integr Peer Rev. 2019*)
 - Including a librarian as co-author is a best practice recommendation at EI
- Improve communication and awareness to showcase involvement of librarians as co-authors, peer-reviewer certification, success stories, etc
- Librarians are well-suited for staying abreast of fast developing environment in information science - the knowledge gap will increase with the evolution of library search tools
- Advocacy for best practice in research, leverage health science information for decision-making
- Integrating librarians in the whole SR process (from planning to publication)

Take home message

- We need you! Librarians / information specialists have a unique expertise as SR peer-reviewers
- Engagement between journal editors and librarians should be increased to demonstrate proof of concept (stage of the review process) and added value
- Need for leveraging the expertise we have in CH - opportunities for creating a Swiss network for evidence synthesis in CH?
- My experience as a journal editor and researcher has been shaped by my own success stories...
 - EDITOR/PEER-REVIEW - Collaboration with UZH medical library since 2019 (Martina Gosteli, Sabine Klein, Alisa Berger)
 - RESEARCHER - Collaboration with UNIBAS medical library (Christian Appenzeller-Herzog) (SEMs - *Schreier et al. Env Int. 2022,67,107387; Schreier et al 2023. Env Int.176,107978*)

THANK YOU FOR YOUR ATTENTION

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