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Academic Career Pathways / Clinical Education Leaders Series Webinar: Best Practices for Publishing in Medical Education Journals

March 12, 2025

7:00 PM ET

AAMC

Tomorrow's Doctors, Tomorrow's Cures

Learn

Serve

Lead

Best Practices for Publishing in Medical Education Journals

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Association of
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What do editors want?

- Significant, clear rationale
- Novel, interesting idea
- Alignment of purpose with rigorous methodology and data analysis strategy
- Discussion that puts the results or arguments into context
- Likely to be cited
- A good fit for the journal / publication
- Well written — Work is presented clearly and accurately

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When developing a paper …

Think about:

- Aims of the paper and what it contributes
- Target audience and the journal mission and scope

Different journals have different article types and audiences

- Read recently published articles
- Review the instructions for authors

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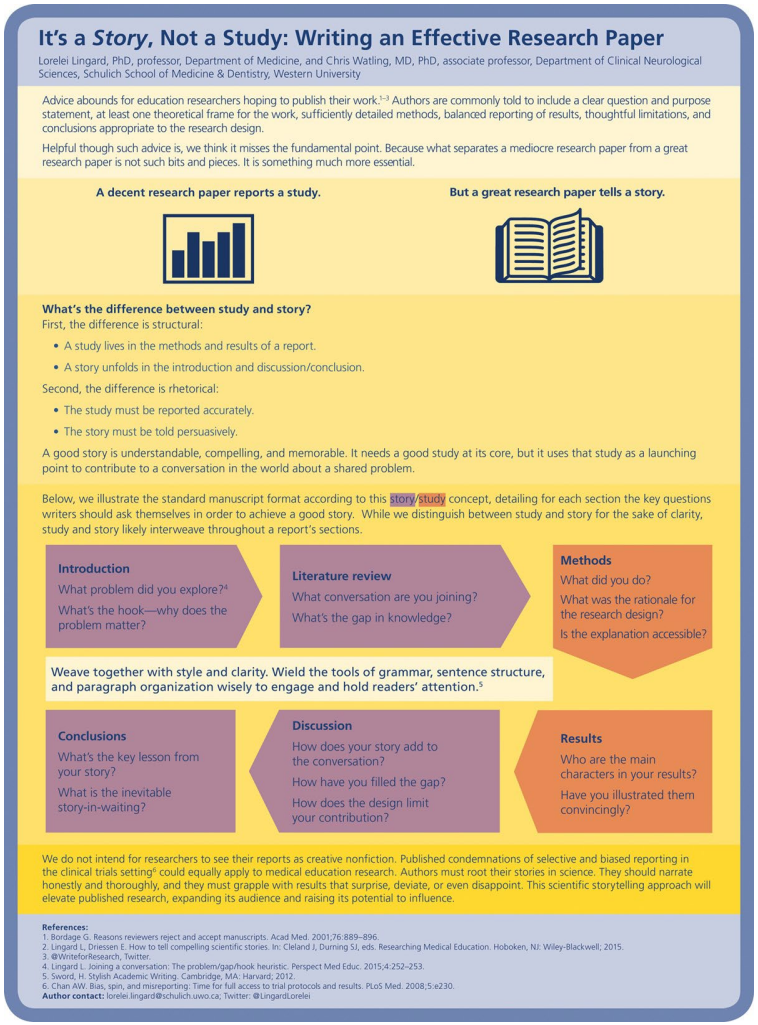
"It's a *Story*, Not a Study"



It's a *Story*, Not a Study: Writing an Effective Research Paper

Lorelei Lingard, PhD, professor, Department of Medicine, and Chris Watling, MD, PhD, associate professor, Department of Clinical Neurological Sciences, Schulich School of Medicine & Dentistry, Western University

Advice abounds for education researchers hoping to publish their work.[1-3] Authors are commonly told to include a clear question and purpose statement, at least one theoretical frame for the work, sufficiently detailed methods, balanced reporting of results, thoughtful limitations, and conclusions appropriate to the research design.

Helpful though such advice is, we think it misses the fundamental point. Because what separates a mediocre research paper from a great research paper is not such bits and pieces. It is something much more essential.

A decent research paper reports a study.

But a great research paper tells a story.

What's the difference between study and story?

First, the difference is structural:

- A study lives in the methods and results of a report.
- A story unfolds in the introduction and discussion/conclusion.

Second, the difference is rhetorical:

- The study must be reported accurately.
- The story must be told persuasively.

A good story is understandable, compelling, and memorable. It needs a good study at its core, but it uses that study as a launching point to contribute to a conversation in the world about a shared problem.

Below, we illustrate the standard manuscript format according to this story/study concept, detailing for each section the key questions writers should ask themselves in order to achieve a good story. While we distinguish between study and story for the sake of clarity, study and story likely interweave throughout a report's sections.

Introduction
What problem did you explore?[4]
What's the hook—why does the problem matter?

Literature review
What conversation are you joining?
What's the gap in knowledge?

Methods
What did you do?
What was the rationale for the research design?
Is the explanation accessible?

Weave together with style and clarity. Wield the tools of grammar, sentence structure, and paragraph organization wisely to engage and hold readers' attention.[5]

Conclusions
What's the key lesson from your story?
What is the inevitable story-in-waiting?

Discussion
How does your story add to the conversation?
How have you filled the gap?
How does the design limit your contribution?

Results
Who are the main characters in your results?
Have you illustrated them convincingly?

We do not intend for researchers to see their reports as creative nonfiction. Published condemnations of selective and biased reporting in the clinical trials setting[6] could equally apply to medical education research. Authors must root their stories in science. They should narrate honestly and thoroughly, and they must grapple with results that surprise, deviate, or even disappoint. This scientific storytelling approach will elevate published research, expanding its audience and raising its potential to influence.

References:
1. Bordage G. Reasons reviewers reject and accept manuscripts. Acad Med. 2001;76:889–896.
2. Lingard L, Driessen E. How to tell compelling scientific stories. In: Cleland J, Durning SJ, eds. Researching Medical Education. Hoboken, NJ: Wiley-Blackwell; 2015.
3. @WriteforResearch, Twitter.
4. Lingard L. Joining a conversation: The problem/gap/hook heuristic. Perspect Med Educ. 2015;4:252–253.
5. Sword, H. Stylish Academic Writing. Cambridge, MA: Harvard; 2012.
6. Chan AW. Bias, spin, and misreporting: Time for full access to trial protocols and results. PLoS Med. 2008;5:e230.
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Lingard L, Watling C. It's a *story*, not a study: Writing an effective research paper. Acad Med. 2016;91:e12.

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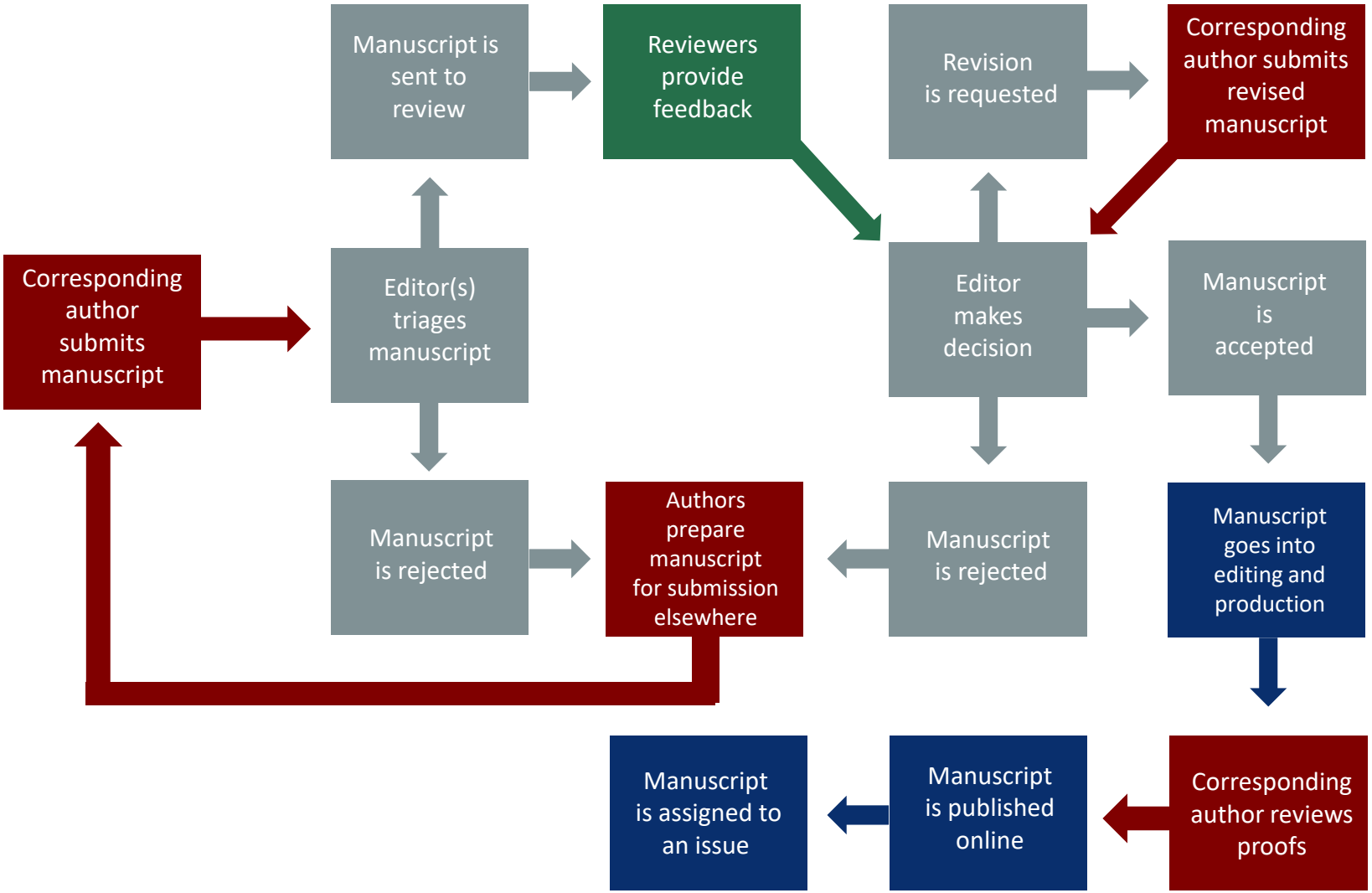
Review & Publication Process



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Use AI to …

- Brainstorm ideas / build an outline for your paper
- Generate a summary of your paper
- Suggest a title for your paper
- Reduce the word count of your abstract
- Edit specific grammatical features (e.g., identify passive voice and suggest alternatives)
- Find an appropriate journal for your paper (e.g., Jane, EndNote)

Lingard L. Writing with ChatGPT: An illustration of its capacity, limitations, & implications for academic writers. Perspect Med Educ. 2023;12:261-270. https://pmejournal.org/articles/10.5334

Journal Matching Tools: https://med-fsu.libguides.com/publishing/selection

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Other AI Considerations

- Be careful when using open (vs. university/ closed) AI tools
- How you prompt AI is very important
- Always check AI's work, beware of false responses and hallucinations
- Use AI's work as a first draft, not the final version
- Cite the tool, version, and date accessed in the text, disclosures, and/or submission form
- Check journal guidelines for their AI policy
- AI cannot serve as an author on a paper

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Fostering Scholarship in Medical Education: Resources for Authors and Reviewers

Scholarship drives the practice of medical education forward, affecting how we educate trainees and ourselves, what we know about each other and our institutions, and how we identify and close gaps in our understanding of important topics. The AAMC supports scholars and their work through its journals and professional development offerings and its role connecting people and convening groups from across the community.

Below you'll find a curated set of resources to advance your work as a health professions education researcher, writer, and reviewer. All resources are available to access and download for free unless otherwise noted.

This list is but a sample of the resources available to support scholars in their work. If you use other (free) resources, we want to know! Email academicmedicine@aamc.org with a link to the resource and a brief description of it and why it's helpful to you. We'll update this page periodically with new and newly uncovered resources.

aamc.org/what-we-do/mission-areas/medical-education/fostering-scholarship

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Scholarly Publishing Webinar Series
from *Academic Medicine* and *MedEdPORTAL*

What's Their Secret? Tips from Successful Academic Writers in Health Professions Education

March 26, 1-2 pm ET

Successful authors from different scholarly backgrounds and at different stages of their careers will share their writing habits and provide attendees with concrete steps for best incorporating writing into their busy lives.

Available at aamc.org/publishingwebinar

- Register for upcoming sessions
- Access recordings, slides, key takeaways from past sessions

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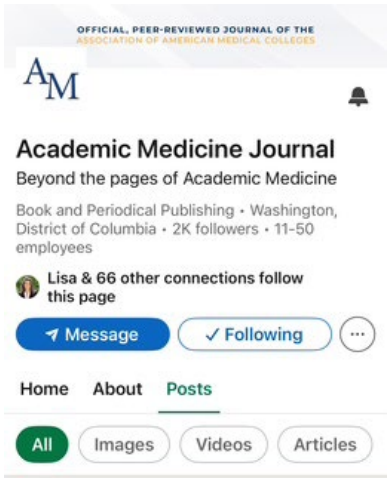
Stay Engaged With Your Favorite Journals

- Follow them on social media
- Sign up for their newsletter, electronic table of contents
- Subscribe to their video channel or podcast



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Developing Good Research from Good Questions:

Practical Strategies for Quality Improvement, Workforce, Education, and Literature Reviews

Mark Speicher, PhD, MHA

Senior Vice President, Research, Learning and Innovation

Objectives

- Identify and develop novel research ideas
- Design impactful studies

Why Novel Ideas Matter

- Greater impact and higher likelihood of acceptance
- Advances knowledge
- Demonstrates original and critical thinking

Sources of Novel Research Ideas

- Clinical Gaps: Unmet needs or inconsistent practices
- Policy Changes: New guidelines or regulations
- Educational Gaps: Challenges in medical training
- Emerging Trends: Technology, AI, population health shifts

Research Well-suited to Less Experienced Researchers, Including Students

- Quality Improvement (QI) Research
- Workforce Research
- Education Research
- Literature Reviews

Research Question Checklist

- Focused and specific (how to improve healthcare vs. how does access to ophthalmology improve patient outcomes in rural areas?)
- Clear and unambiguous (what is the impact of SES on health outcomes vs. how does SES impact readmission rates in heart failure patients?)
- Researchable and feasible (what are genetic factors that increase cancer risks vs. what genetic markers are associated with increased breast cancer risk in women under 40?)
- Novel and significant (not answered for the population of interest)
- Grounded in theory and existing evidence
- Ethical and appropriate
- Open to investigation (not yes/no questions)
- **F**easible, **I**nteresting, **N**ovel, **E**thical, **R**elevant

Quality Improvement Research

- Improve patient outcomes or system efficiency
- Identify process bottlenecks
- Use Plan-Do-Study-Act (PDSA) cycles

Example – Quality Improvement

- Publication: Gould, Bruce E. MD; Grey, Michael R. MD, MPH; Huntington, Charles G. PA, MPH; Gruman, Cynthia LCSW, PhD; Rosen, Jonathan H. MD; Storey, Eileen MD; Abrahamson, Lynn MPH; Conaty, Ann Marie; Curry, Leslie MPH, PhD; Ferreira, Michelle; Harrington, Karen L. LCSW; Paturzo, Deborah MS; Van Hoof, Thomas J. MD, MA. Improving Patient Care Outcomes by Teaching Quality Improvement to Medical Students in Community-based Practices. Academic Medicine 77(10):p 1011-1018, October 2002.
- Resource: Jones B, Vaux E, Olsson-Brown A. How to get started in quality improvement. BMJ. 2019 Jan 17;364:k5408. doi: 10.1136/bmj.k5437. PMID: 30655245; PMCID: PMC6335598.
- Resource: Brian M. Wong, Gail M. Sullivan; How to Write Up Your Quality Improvement Initiatives for Publication. J Grad Med Educ 1 May 2016; 8 (2): 128–133. doi: https://doi.org/10.4300/JGME-D-16-00086.1

Physician Workforce Research

- Addressing physician shortages
- Impact of workforce diversity
- Geographic distribution of specialists

Example – Workforce Research

- Example: Ahmed, Harris & Price, Marla & Robbins, Wayne & Braich, Puneet. (2020). Practice Locations of Michigan Ophthalmologists as a Model to Compare Practice Patterns of DO and MD Surgical Subspecialists. The Journal of the American Osteopathic Association. 120. 10.7556/jaoa.2020.090.

Medical Education Research

- Delivery models like PBL or TBL
- Educational trends
- Outcomes of competency-based education models
- Impact of interprofessional training
- Integration of AI, AR and simulation

Examples – CBE and IPE

- Example: Systematic Review of available competency sets designed for use with MD and DO medical students
- Example: Using AI to map the delivery of Interprofessional Education objectives, content, delivery and assessments across participating professions in a school of health sciences

Literature Reviews

- Systematic, scoping, and narrative reviews
- Identifying gaps and synthesizing findings
- Building a foundation for future research

Example – Literature Review

- Scoping review on medical student burnout programming
- Systematic review of the impacts of P/F grading

Common Pitfalls to Avoid

- Poor research question or lack of focus
- Misalignment with journal scope
- Inadequate methodology or data analysis

Using AI in Research Development

- Know the journal guidelines on the use and acknowledgement of AI
- Generate research ideas and outlines
- Summarize articles and identify trends
- Critique writing and/or methods

Key Takeaways

- Identify research gaps and unmet needs
- Develop excellent, FINER questions
- Use methodological models
- Ensure journal fit and follow guidelines
- Use AI tools to strengthen work if permitted

Final Thoughts

- Developing novel ideas strengthens the field
- Successful publication requires strategy and persistence
- Thank you for your own research work, but especially your mentorship, now and in the future

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Best Practices for Publishing in Medical Journals

AOGME Webinar – March 2025

Gevork Harootunian, Director of Data Science

What this Presentation Covers

- Data Generation, Exploration, and Research Rigor
- Navigating the Peer Review & Revision Process
- Advice for Early Career Researchers

Data Generation, Exploration, and Research Rigor

Types of Data

- Primary Data: Surveys, experiments, observational studies
- Secondary Data: Government or public data, institutional data, EHR, clinical or claims data
- Ethical Considerations: IRB approval, HIPAA/FERPA, privacy and security, reproducibility

Methodological Exploration

- Data is an abstraction of reality
- Statistical models interpret the abstraction, not reality itself
- Distortions in data collection impact research validity
- EDA helps refine research questions and realistic limitations

Navigating the Peer Review & Revision Process

Understanding the Peer Review Process

- Review specific journal style guidelines, requirements, or other instructions before submission
- Desk review: Fit, clarity, impact
- Peer reviewers assess originality, rigor and methods, relevance
- Review outcomes: Accepted (with or without revisions), resubmission with minor or major revisions, rejection
- What reviewers look for: Novelty, methodology, logical discussion

How to Handle Reviewer Comments

- Read and Categorize Feedback
  - Minor vs Major
- Address Feedback Professionally
- Create a Shared Response Document
  - A document to coordinate and assign members specific feedback response
- When to Push Back
  - Misunderstandings, scope/focus, bad or wrong

Resubmission & Rejection Strategies

- Rejections happen to everyone
  - Why were you rejected?
  - And remember, it happens to everyone!
- Revise based on reviewer feedback before resubmitting
- Ensure better journal fit when resubmitting
- Avoid resubmitting unchanged papers

Practical Advice for First-Time Authors & Collaborative Writing

Learn from the Research Groups You're In

- Each group has its own culture, workflow, and tools
- Learn best practices and adapt them to your work
- Observe successful processes and integrate them

Finding a Guide Paper

- Identify a model paper for structure and methodology
- Guide papers help with clarity, rigor, and impact
- Acts as benchmark for strong execution

The Writing Process

- Write first, edit later: Don't edit while writing
- Outlines and dedicated writing time
- Assign clear sections to co-authors
- Use collaboration tools for reference management, code and data management, and writing

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Key Takeaways & Closing Thoughts

- Publishing is a process—iteration is part of it
- Think critically about data and methodology
- Good research is a team effort—learn from those around you – including reviewers
- Don't be intimidated by the process, its meant to improve you and your work
- Stay persistent—every published author has a history of rejections (ask Mark ☺)