

Guide to RMCOEH's Journal Club

What is Journal Club?

Journal Club is an opportunity for students, faculty, and staff across the RMCOEH to gather and discuss published scientific articles relevant to occupational health and safety, occupational medicine, industrial hygiene, ergonomics and safety, and occupational injury prevention. Depending on your program, you may be required to present 1-3 times during the academic year. You are always encouraged to attend—Journal Club is an invaluable part of the RMCOEH experience that offers a chance to discuss material with your peers, learn about other fields, and talk with faculty.

What does Journal Club look like?

Two trainees/residents will present and moderate a discussion at each Journal Club. Each trainee will be responsible for 30 minutes of each Journal Club, which will approximately follow the format below:

- 10 minutes: Presentation
- 10-15 minutes: Small group discussion in response to pre-prepared questions from the presenter
- 5-10 minutes: Return to whole-group discussion to touch base

When do I present?

You will have an opportunity to sign up at the beginning of the academic year and will receive a copy of the schedule when finalized. If you have questions or need to reschedule, please contact camie.schaefer@utah.edu.

What article should I present?

You should present a **scientific** article (i.e., a peer-reviewed article based on empirical evidence. This can include original research with a hypothesis, a description of existing research, or a comment on current lines of thinking). This article must be relevant to your studies in occupational and environmental health. To find an article, check out the list of suggested articles compiled by the faculty and staff or visit PubMed, ScienceDirect, EBSCOHost or other scientific databases available through the Marriott Library (<http://lib.utah.edu>; be sure to log in for off-campus access to bypass paywalls).

The screenshot shows the Marriott Library website interface. A green box highlights the 'RESEARCH' dropdown menu in the navigation bar, with an arrow pointing to it and the text 'Find databases here (organize by name or type)'. Another green box highlights the 'Log in' button in the top right corner, with an arrow pointing to it and the text 'Log in here first'. The website header includes 'MARRIOTT LIBRARY COV', 'J. Willard Marriott Library THE UNIVERSITY OF UTAH', and 'ALL U NEED'. The main content area features a search bar with the text 'ALL U NEED' and 'Advanced Catalog Search'. The footer contains links for 'Collections', 'Databases', 'Journals', and 'Research Guides'.

Advice for Choosing a Paper:

- Consult the list of recommended papers (currently in progress)
- Ask a faculty member if you have a topic in mind but not a paper
- Find papers that have been multiply-cited by other researchers
- Look for papers relevant to your career goals (e.g., a field you might want to work within)
- Look for papers that have been recently published (within 5 years) or that are seminal (i.e. an earlier article that strongly influenced later developments), or that are novel in approach, design, or topic

- A key paper for your research project
- Consider taking a challenging paper to analyze that causes you to learn more!
- Ideal papers hit multiple bullets above

Please choose and send a PDF version of your article to camie.schaefer@utah.edu no later than one week before your presentation.

How do I prepare my presentation?

Your presentation should be 10 minutes in length (1-2 minutes over/under is okay, but no more than that). Present clean PowerPoint slides (avoid excessive text) with images, and avoid reading directly off the slides—use the text on the slides as “talking points” to guide your presentation.

You will then provide 3-5 discussion questions relevant to your paper so that we can break out in small groups for discussion.

You must include the following 8 elements in your presentation:

1. Purpose of the study
2. Type of study (cross sectional, prospective cohort, meta-analysis, etc.)
3. Overview of the methods (including study population, data collection, analysis)
4. The main results
5. Strengths of the study
6. Weaknesses of the study
7. Discussion of the results (how might you implement these results into your own work, future research that might be carried out)
8. Questions for small group discussion (see below)

What sort of discussion questions should I prepare?

You should tailor your 3-5 discussion questions for your paper. These should be open-ended (i.e., not “yes” or “no” questions) and facilitate discussion. Below are a list of generic questions that you can use or modify.

1. What is the study adding that is new, innovative, or interesting?
2. How is this study relevant to your field (e.g., IH, ergonomics)? How might this study be relevant to other fields? Meditate on how this study might be of use in other RMCOEH disciplines (ergonomics, safety, occupational injury prevention, occupational medicine, industrial hygiene).
3. What are some of the implications of this study? For clinical or professional practice and/or research? For future studies?
4. What sort of data do the authors have, and what statistical methods did they use to analyze the data? If you are familiar with the statistical methods, discuss what you see as a benefit of these tests. If you are not familiar with these tests, look them up in your group and discuss how you might use them.
5. What do you think of the data collection methods? What were some of the benefits of these methods? What do you see as some of the drawbacks? Would the methods chosen be different today if the study was incepted today, or if you performed the study?
6. Do you see any unaddressed biases in the paper (e.g., the “healthy worker” effect in which only healthy and active workers are included, the self-reporting bias in which people may report what they wish they did rather than what they actually did, or selection biases in recruitment like gender, age, race, etc.). Are measurement errors likely to be systematic or random or both? What effect(s) might these biases have?
7. Has the study appropriately dealt with confounders? If not, what confounders should the authors have considered? What effect might dealing with confounders have on these results?
8. Do the data justify the conclusions? If so, how do the data justify them? If not, what else would you need to justify the conclusions?
9. How generalizable are these results? Is this population representative? Could these findings be applied to other populations?

10. Is the sample size appropriate for the study? Why or why not?