A Guide for Evaluating Research Papers

Problem Statement
- What is the main problem?
- Why is this problem important?

Background/Literature review for study
- What is known about the problem area?
- What studies have already been done?
- Does the study add to needed studies?
- Does the background support the study’s purpose?
- Does the literature review include studies that have addressed the problem and how they have contributed to the area but not fully solved the problem?

Purpose/Objective
- What was the specific study purpose or aim?

Research Design/Sample
- What type of design was used?
- What were the outcome variables? Do these make sense in relation to the purpose?
- How were the outcomes measured? (e.g., instruments, surveys, procedures)
- Was this a single site or multi-site study?
- Was this a sponsored study, and by whom?
- Who were the participants? How many?
- What were the criteria for inclusion and exclusion? (think about how these might influence the study and results)
- Were the participants blind to treatment?
- Were investigators blind to treatments?
- Were participants randomly assigned to treatment groups? (or was this an observational study?)

Data Collection

- What data were collected?
- When were data collected on the various variables defined in the study?
- What was the primary outcome endpoint?
- If there were secondary endpoints, what were these? Are these reasonable endpoints?
- Based on the study protocol, were data collected in a consistent way?
- Were the methods for data collection reliable, valid? (look for authors to address this in the method section—even if briefly)

Analysis

- What statistical analysis was done?
- Does the analysis make sense in terms of the study purpose and the data that was collected?

Results

- What were the results of the study?
- Were findings statistically significant?
- In what ways do you think the participants, the size of the study, or other factors may have affected the results?
- How do the results add to what is already known about the topic?
- Did the authors report information about the safety of the treatment, any adverse effects or acceptability?
- If it were done again, would it be likely that similar results would be obtained? (think about any factors that might make it hard to reproduce the study)
- Are the conclusions drawn from the results?
- Does the sample reflect patients in other clinical settings?
- Could results be applied to similar populations? (why or why not)
Application and Implications

- Could the results be implemented in daily practice?
- What are the main practice messages you can take from the study?
- How does the study differ from your practice—patients, environment?
- What other factors might limit the application of results? (e.g., policies, regulations, insurance, time)?