AWHONN Evidence-Based Practice Process

Appraise the Evidence
Part I

Evaluating or appraising the evidence for the quality, relevance, and applicability of the findings from the best-evidence search, combined with clinician expertise and patient-valued preferences, guides informed decision-making in practice. Healthcare clinicians must ensure that the interventions they apply are based on relevant, reliable research that can be integrated into clinical practice, align with clinicians' expertise, meet patients' needs and values, and improve patient care and outcomes. There are many models available to assist in evidence appraisal. Although AWHONN does not endorse a specific model for evidence appraisal, this document provides examples.

PRE-APPRAISED EVIDENCE

After establishing the focus of the evidence-based practice (EBP)/PICOT question that aligns with the organization's priorities and conducting a best-evidence search, the next step is to determine whether suitable, pre-appraised evidence (e.g., recent clinical practice guidelines or evidence-based guidelines) is available.

If pre-appraised evidence exists, a review for suitability and adequacy should take place. After securing pre-appraised evidence, search for additional evidence that was published after the release of the pre-appraised evidence. If no additional evidence exists, proceed with the translation phase. If the additional evidence contradicts the pre-appraised evidence, determine which recommendations to adopt and move to translation.

If pre-appraised evidence does not exist, conduct an exhaustive search for strong or moderate evidence (e.g., systematic reviews, randomized controlled trials, etc.). Having a librarian assisting with an exhaustive search can be beneficial.

If no evidence exists, the EBP project should not be started. Consideration of next steps may include:

- conducting a research study
- maintaining the current practice
- assessing community standards

DETERMINE THE STUDY DESIGN

To determine the appropriate appraisal tool, the study design must be defined. Appraising the evidence is the trademark of EBP. It is important to include all levels of evidence to provide the most comprehensive understanding of what is available to guide clinical practice.

Not all study designs will be obvious from the abstract; some studies may use mixed study designs, and some authors may use misleading terminology to describe their studies. If unsure of the correct study design to use, it is acceptable to:

- Pick a study design, and if the corresponding appraisal form isn't helpful, try a different one.
- Use questions from more than one study design appraisal form.
- Omit answers to questions on the appraisal form if they don't apply to the study.

Study Design Examples

The studies are listed in order of highest to lowest strength; however, the strength of a study depends on several factors, including the quality of the included studies, the method of synthesis, the research question, the specific context, and the nature of the evidence being evaluated.

This is not an exhaustive list and does not mitigate the need to assess the study's quality.

Systematic review	A secondary study that extracts, appraises, and synthesizes the data from published studies on the same topic to provide a comprehensive overview of the existing evidence. The following should be found in a systematic review: • A clearly stated objective • Search methods should include where and how • Inclusion/exclusion criteria PRISMA is not mandatory; however, authors are strongly encouraged to include it.
Randomized controlled trial (RCT)	Compares the effectiveness of different interventions. Participants are randomly assigned to the intervention or comparison group.
Meta-analysis	Examines the data from several studies with the same question and combines the numerical results to calculate an overall effect size. The purpose of a meta-analysis is to provide a more accurate conclusion by limiting bias and random errors.
Non-randomized controlled trial	Compares the effectiveness of different interventions. Participants are not randomly assigned to the intervention or comparison group.
Controlled cohort studies	Observational study following two groups (exposed vs. non-exposed) over time to compare outcomes. Groups are identified based on exposure status.
Uncontrolled cohort studies	Observational study following a single group over time to assess outcomes after an exposure or intervention without a comparison group.
Case-controlled studies	Compares two groups, people with an outcome of interest (cases) and a similar group without the outcome (controls); retrospectively examines if the cases or the controls were more likely to have been exposed to a risk factor (e.g. people who develop a specific illness, have an adverse event with a certain treatment, or behave in a certain way).
Case study or case report	Describe the history of a single subject (or small group of subjects) in the form of a story. Not reliable to use as a sole source.
Mixed methods	Contains qualitative and quantitative methodologies for a single area of interest.
Evidence-based guidelines, clinical practice guidelines	Recommendations developed from various levels of evidence, often including grading of recommendation strength and multidisciplinary consensus.
Cross-sectional study	Analyzes data from a specific population at a specific point in time.
Literature review/narrative review	Summary of existing literature that supports the author's point of view or can serve as general information regarding a particular topic. No rigorous process was used in this study design.
Quasi-experimental	Has an intervention but lacks randomization and sometimes lacks a control group.
Descriptive studies	Describe the characteristics of a certain situation.
Evidence-based practice (EBP) projects	EBP projects include external and internal evidence to improve clinical outcomes, quality of care, and/or cost reduction.
Quality improvement (QI) projects	QI projects are typically data-guided approaches (e.g. internal chart audits, observational audits etc.) to improve processes or outcomes. Changes in processes/improvements should be based on available evidence.
Qualitative	Information gathered from the subject's perspective, experiences, or preferences. Contains narrative data.
Expert opinion	Recommendations based on clinical expertise, consensus panels, or theoretical rationale without systematic research evidence.

APPRAISAL TOOLS

Various appraisal tools are available to guide the appraisal process. The appraisal tools contain questions that help to systematically evaluate the article to determine if the study:

- clearly addresses the focus question
- uses valid methods to address the focus question
- results are relevant to the focus question
- results are relevant to the proposed subject or population

If the answer is “no” to any of the above questions, chances are the article may not be of value to use in support of the PICOT/EBP question.

Below are examples of free downloadable EBP appraisal tools; however, this is not an exhaustive list. Consider checking with your facility to determine which EBP model has been adopted.

- Centre for Evidence-based Medicine (CEBM)
- Johns Hopkins Center for Evidence-based Practice
- LEGEND Evidence Evaluation Tools & Resources
- Purdue University Northwest
- University of Iowa Evidence-Based Practice Resources

References

Bissett, K., Ascenzi, J., & Whalen, M. (2025). Johns Hopkins evidence-based practice for nurses and healthcare professionals. Models & guidelines, (5th ed.). Sigma Theta Tau International.

Melnyk, B. M., & Fineout-Overholt, E. (2023). Evidence-based practice in nursing & healthcare, (5th ed.) Wolters Kluwer.