

PET Process Guide
Appendix A

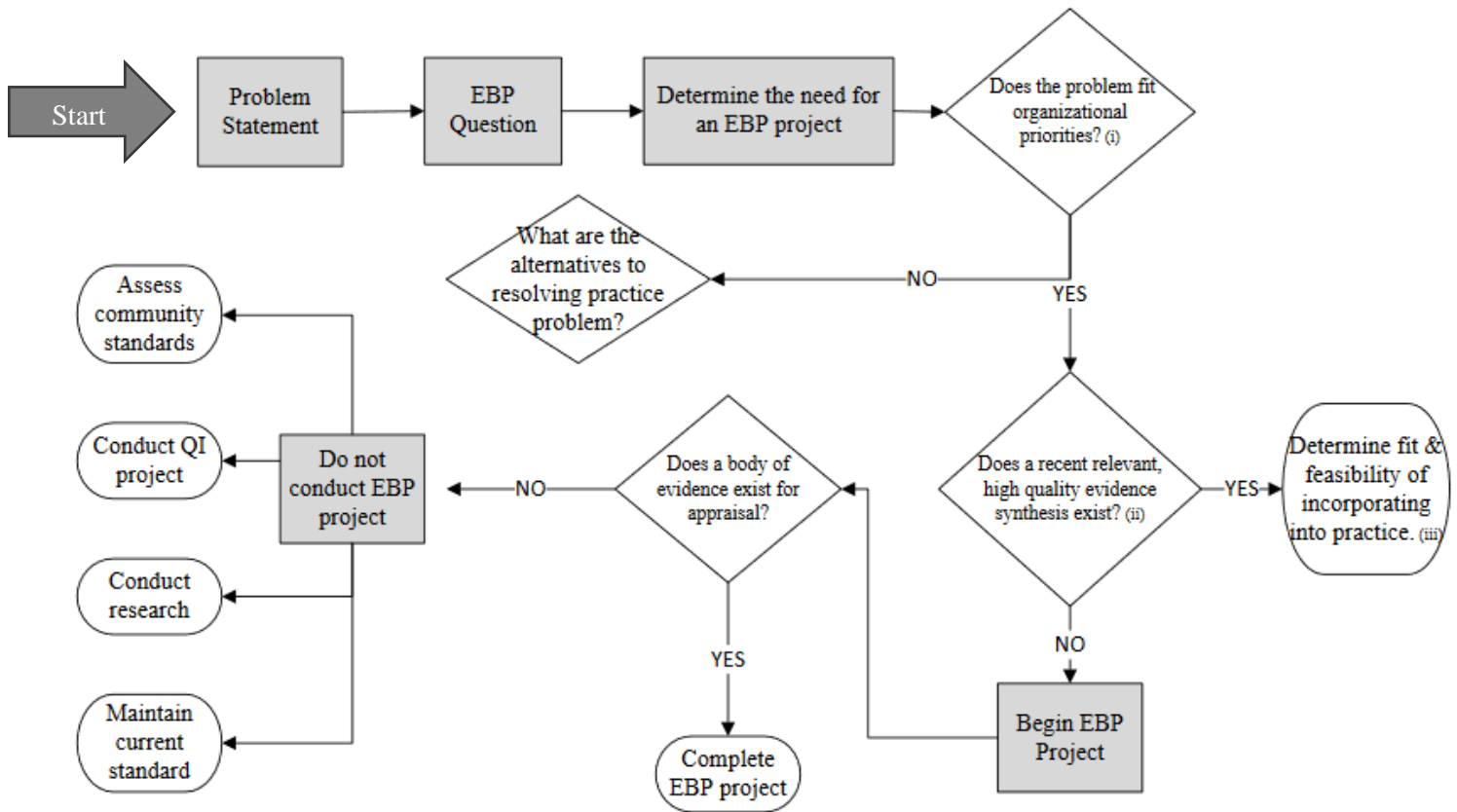


EBP Work Plan										
Initial EBP question:										
EBP team leader(s):										
EBP team members:										
Goal completion date:										
Steps		Month								
		1	2	3	4	5	6	7	8	9
Practice Question & Project Planning	1. Recruit interprofessional team									
	2. Determine responsibility for project leadership									
	3. Schedule team meetings									
	4. Clarify & describe the problem (App. B)									
	5. Develop & refine the EBP question (App. B)									
	6. Determine the need for an EBP project									
	7. Identify stakeholders (App. C)									
Evidence	8. Conduct internal & external search for evidence									
	9. Appraise the level & quality of each piece of evidence (Apps. E/F)									
	10. Summarize the individual evidence (App. G)									
	11. Synthesize findings (App. H)									
	12. Develop best evidence recommendations (App. H)									
Translation	13. Identify practice setting-specific recommendations (App. I)									
	14. Create action plan (App. I)									
	15. Secure support & resources to implement action plan									
	16. Implement action plan									
	17. If change is implemented, evaluate outcomes to determine if improvements have been made									
	18. Report results to stakeholders (App. C)									
	19. Identify next steps									
	20. Disseminate findings (App. J)									

PET Process Guide

Appendix A

Decision tree to determine the need for an EBP project



Key to the EBP Project Decision Tree:

- i. Organizational priorities include unit, department, hospital, and programmatic.
- ii. Team critically evaluates an existing evidence synthesis to ensure not only quality, but also that the findings are applicable to team’s setting and population and have been completed recently enough to represent the current environment. Make practice changes based only on high to moderate strength of syntheses of evidence, rather than on a single, low-quality evidence synthesis.
- iii. Refer to the JHEBP Model and Guidelines for Nursing and Healthcare or the online EBP modules for assistance in determining fit, feasibility, and appropriateness.

PET Process Guide
Appendix A



Directions for Use of the PET Process Guide

Purpose: The PET Process Guide is a tool to plan each step of the EBP process using the related Appendix, as indicated.

See Chapter 11, Lessons from Practice, for examples of completed tools.

EBP Project Plan: The project plan is dynamic, and the team should revisit due dates for each step throughout the EBP project. Best practice is to start with the desired completion date and work backward to determine a due date for each step. Shade the month box(es) that correspond to the completion date for each step in a row. Shaded boxes across rows may overlap. The team can convert the numbered months to month name. Where applicable, the corresponding EBP Appendix tool is noted.

Decision tree to determine the need for an EBP project:

The EBP decision tree guides the team in determining if an EBP project is the appropriate inquiry approach and is value-added. *Note:* Evidence must exist to conduct an *evidence*-based practice project. If an evidence-based practice synthesis of evidence exists (internally or externally to the organization) and the team determines it is high-quality, recent, and applicable to the situation or population, the team moves to recommendations and translation.

Question Development Tool

Appendix B

What is the problem?
What are the data and sources of information that validate the problem?
<input type="checkbox"/> Safety and risk management concerns: _____ <input type="checkbox"/> Data: _____ <input type="checkbox"/> Financial information: _____ <input type="checkbox"/> Lack of evidence for current practice: _____ <input type="checkbox"/> Quality indicators: _____ <input type="checkbox"/> Practice observations: _____ <input type="checkbox"/> Other: _____
Why is the problem important and relevant? What would happen if it were not addressed?
What is the current practice?
Is this a background question to establish the state of the evidence on a topic (with no comparison group) or a foreground question to compare specific interventions?
<input type="checkbox"/> Background <input type="checkbox"/> Foreground
What are the PICO components?
P (patient, population, or problem): I (intervention): C (comparison with other interventions if <i>foreground</i> question): O (outcomes):
Initial EBP question:

Question Development Tool

Appendix B

List possible search terms for each part of the PICO question:	
PICO Element	Possible Search Terms
P	
I	
C	
O	
What are preliminary inclusion and exclusion criteria (e.g., date, population, setting, other)?	
Inclusion:	Exclusion:
What evidence needs to be reviewed? (Check all that apply)	
<input type="checkbox"/> Peer-reviewed publications (from databases such as PubMed, CINAHL, and Embase) <input type="checkbox"/> Standards (regulatory, professional, community) <input type="checkbox"/> Clinical Practice Guidelines <input type="checkbox"/> Organizational data (e.g., quality improvement or financial data, local clinical expertise, patient/family preferences) <input type="checkbox"/> Evidence-based professional organization position statements <input type="checkbox"/> Consensus studies (e.g., commissioned reports from the National Academy of Medicine, professional organizations, and philanthropic foundations) <input type="checkbox"/> Other _____	
Revised EBP question:	
What are measures that indicate if the EBP project is successful? (Measures may be structure, process, and/or outcome)	

Question Development Tool

Appendix B

Directions for Use of the Question Development Tool

Purpose: This form guides the EBP team to develop an answerable EBP question. It is meant to be fluid and dynamic as the team engages in the PICO question development process. As the team becomes familiar with the evidence base for the topic of interest, they revisit, revise, and/or refine the question, search terms, search strategy, and sources of evidence.

See Chapter 11, Lessons from Practice, for examples of completed tools.

What is the problem?

Describe and specify the problem that needs to be addressed. What led the team to question this practice? Validate the problem statement with staff who experience it day to day. The interprofessional team needs to work through the problem definition process together to probe the problem description, reflect, gather information, observe current practice, and listen to clinicians' perspectives. This team deliberation ensures the problem statement defines the actual problem rather than a solution and guides the type of measure(s) they will use to determine if the intervention results in improvements once implemented.

What are the data and sources of information that validate the problem?

Confirm the problem with concrete, rather than anecdotal, information. Concrete information exists in the form of staff or patient safety concerns, data demonstrating unsatisfactory process or outcome measures, financial reports, identification of the lack of evidence for current practice, or unsatisfactory quality indicators. Formal information or observations may demonstrate variations within the practice setting or variations within the community. These elements are not mutually exclusive, and the problem may be evidenced in multiple areas.

Why is the problem important and relevant? What would happen if it were not addressed?

Establishing a sense of importance and urgency for a practice problem can help build support for the EBP project and on-board other stakeholders. Emphasize why the problem must be addressed and the potential consequences of not doing so. This is the place to establish your "burning platform" for practice change.

What is the current practice?

Define the current practice as it relates to the problem by identifying the gap or performance issue. Think about current policies and procedures as well as adherence to these guidelines. What is commonly considered acceptable among the staff related to their daily practice? Do policy and practice align? What do you see?

Is this a background question to establish the evidence on a topic (with no comparison group) or a foreground question to compare specific interventions?

Select if you are intending to write a background or foreground question. Background questions are broad and produce a wide range of evidence to establish best practices when the team has little knowledge, experience, or expertise in the area of interest. Background questions do not include a "comparison" group. Foreground questions are focused, with the specific comparison of two or more ideas or interventions. Foreground questions often flow from an initial background question and evidence review.

Question Development Tool

Appendix B

What are the PICO components?

Complete each section. Definitions of each PICO element are included below.

P (patient, population, problem): This may include characteristics such as age, sex, setting, ethnicity, condition, disease, type of patient, or community.

I (intervention): This can be a best practice statement or include a specific treatment, medication, education, diagnostic test, or care practice.

C (comparison): Not applicable for background questions. For foreground questions, comparisons are typically with current practice or an intervention identified in the evidence.

O (outcomes): structure, process, or outcome measures that indicate the success of evidence translation. More than one measure can be listed; examples include structure (e.g., adequacy of resources, space, people, training), process (e.g., care coordination, adherence to protocols for care, performance), or outcomes (e.g., satisfaction scores or retention, fall rates, rates of disease in a population).

Initial EBP Question:

Combine each element of the PICO to create an answerable EBP question. The initial question is refined throughout the PET process.

List possible search terms for each part of the PICO question:

Select concepts from each PICO component to identify search terms. Mapping search terms to each component aids the evidence search; ensure terms are neither too broad nor too narrow. Brainstorm common synonyms for each concept. Be sure to consider alternate spellings or terms used in different countries (e.g., “ward” vs. “unit”) as well as brand names of specific interventions. It may be appropriate to leave some of the rows blank (e.g., the O in PICO) to avoid building solutions into the search itself (e.g., words like “reduction” will only provide evidence that exhibited reductions in the outcome of interest and may miss evidence with no change or even an increase).

What are preliminary inclusion and exclusion criteria (e.g., publication date, population, and setting)?

As a team, list the initial characteristics you want to include or exclude from your evidence search (for example you may want to include student nurses but do not want to include post-licensure nurses). This will help to ensure the team has a mutual understanding of the scope of the project. The group should revisit the list throughout the process to provide further clarifications and refine evidence search results.

What evidence needs to be reviewed?

Select the types of evidence you intend to gather based on the PICO and initial EBP question. This will guide you to the appropriate sources to begin the search.

Revised EBP question:

Often the question that you start with will not be the final EBP question. Needed revisions to the EBP question may not be evident until after the initial evidence review; examples include a revision to the background question

Question Development Tool

Appendix B

or a change from a background to a foreground question. Additionally, preliminary reviews of the evidence may indicate a need to focus or broaden the question, update terminology, and/or consider additional measures of success.

What are measures that indicate if the EBP project is successful? (Measures maybe structure, process, and/or outcome)

It is essential to consider a measurement plan from the onset of an EBP project. As a team, reflect on how you will determine project success. Success can be captured in many ways, and measures can include:

- The structure measures that describe the physical or organizational environment (e.g., nurse-patient ratios)
- Outcome measures that occur after a project (e.g., number of safety events)
- Process measures that are gathered throughout to track progress toward the goals (e.g., use of a new tool or protocol)

Stakeholder Analysis and Communication Tool
Appendix C

Stakeholder Analysis							
Identify the key stakeholders:							
<input type="checkbox"/> Manager or direct supervisor <input type="checkbox"/> Finance department <input type="checkbox"/> Vendors <input type="checkbox"/> Patients and/or families; patient and family advisory committee <input type="checkbox"/> Professional organizations <input type="checkbox"/> Committees				<input type="checkbox"/> Organizational leaders <input type="checkbox"/> Interdisciplinary colleagues (e.g., physicians, nutritionists, respiratory therapists, or OT/PT) <input type="checkbox"/> Administrators <input type="checkbox"/> Other units or departments <input type="checkbox"/> Others: _____			
Stakeholder analysis matrix:						(Adapted from http://www.tools4dev.org/)	
Stakeholder Name and Title:	Role: (select all that apply) Responsibility, Approval, Consult, Inform	Impact Level: How much does the project impact them? (minor, moderate, significant)	Influence Level: How much influence do they have over the project? (minor, moderate, significant)	What matters most to the stakeholder?	How could the stakeholder contribute to the project?	How could the stakeholder impede the project?	Strategy(s) for engaging the stakeholder:

Stakeholder Analysis and Communication Tool
Appendix C

Communication Planning			
Refer to this section to guide your communications to stakeholders throughout and after completing the EBP project.			
What is the purpose of the dissemination of the EBP project findings? (check all that apply)			
<input type="checkbox"/> Raise awareness	<input type="checkbox"/> Change practice	<input type="checkbox"/> Inform stakeholders	
<input type="checkbox"/> Promote action	<input type="checkbox"/> Engage stakeholders	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Change policy			
What are the 3 most important messages?			
Align key message(s) and methods with the audience:			
Audience	Key Messages	Method	Timing
Interdisciplinary stakeholders			
Organizational leadership			
Frontline nurses			
Departmental leadership			
External community			
Other			

Stakeholder Analysis and Communication Tool Appendix C

Directions for Use of the Stakeholder Analysis and Communication Tool

See Chapter 11, Lessons from Practice, for examples of completed tools.

Purpose:

The EBP team uses this form to identify key stakeholders. Key stakeholders are persons, groups, or departments that have an interest in, concern about, or stake in your project. This may include approval, subject matter expertise, or resources. Communicate with stakeholders early in the process and keep them updated on progress to ensure their buy-in for implementation.

Because stakeholders may change at different steps of the process, we recommend that you review this form as you proceed from step to step in your action plan.

The communication planning section is useful to promote communication throughout the EBP project process. Ideally, complete the communication section toward the end of the EBP project when the team has identified organization-specific recommendations.

Identify the key stakeholders (broad categories):

Consider the various areas, departments, groups, or organizations that may be impacted by or have influence over the proposed practice change.

Stakeholder analysis matrix:

Using the prompts from above, identify the five to seven stakeholders who can most affect (or who will be most affected by) the results and who can influence the success of the translation work. Consider which of the four roles each stakeholder may play in your action planning and translation work. The possible **roles** are:

- Responsibility – Completes identified tasks. Recommending authority
- Approval – Signs off on recommendations. May veto
- Consult – Provides input (e.g., subject matter experts). No decision-making authority
- Inform – Notified of progress and changes. No input on decisions

Remember that one stakeholder may fill different roles, depending on the action. Completion of the Stakeholder Analysis Tool will help clarify roles and responsibilities. The descriptions of responsibilities for each role provided on the form will be helpful in this process.

EBP teams should consider the amount of **impact** the project may have on the stakeholder and the amount of **influence** the stakeholder can have on

Stakeholder Analysis and Communication Tool Appendix C

the project's success. Identifying the ways the stakeholder can both **contribute** to and **impede** the project's success as well as how best to **engage** the stakeholder allows teams to develop plans to optimize the best outcomes.

Align key message(s) and methods with the audience:

Audience: Think about the project recommendations. Identify the end users—who is your audience? Revisit the Stakeholder Analysis Tool above to confirm stakeholders and the key messages they need to receive. What do you want the target audience(s) to hear, know, and understand?

Key Messages: Messages should be clear, succinct, personalized to the audience, benefit-focused, actionable, and repeated 3-6 different times and ways.

Method: Communication can occur on many levels using varying strategies.

- Internal dissemination methods can include newsletters, internal websites, private social media groups, journal clubs, grand rounds, staff meetings, tool kits, podcasts, and lunch-and-learns.
- External dissemination can be in the form of conference posters and podium presentations, peer-reviewed articles, opinion pieces, letters to the editor, book chapters, interviews, or social media (blogs, Twitter, YouTube).

Timing: When will your message have the most impact? Consider the audience and time communication when the content may be most relevant to them and their priorities. Also, keep in mind events such as holidays and the academic calendar which can distract audiences' attention.

Hierarchy of Evidence Guide
Appendix D

Note: Refer to the appropriate Evidence Appraisal Tool (Research [Appendix E] or Nonresearch [Appendix F]) to determine quality ratings.

	Evidence Level	Types of Evidence
Research Evidence (Appendix E)	Level I	<ul style="list-style-type: none"> • Experimental study, randomized controlled trial (RCT) • Explanatory mixed methods design that includes only a Level I quantitative study • Systematic review of RCTs, with or without meta-analysis
	Level II	<ul style="list-style-type: none"> • Quasi-experimental study • Explanatory mixed methods design that includes only a Level II quantitative study • Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis
	Level III	<ul style="list-style-type: none"> • Nonexperimental study • Systematic review of a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis. • Exploratory, convergent, or multiphasic mixed methods studies • Explanatory mixed methods design that includes only a Level III quantitative study • Qualitative study • Systematic review of qualitative studies with or without meta-synthesis
Nonresearch Evidence (Appendix F)	Level IV	<p>Opinion of respected authorities and/or nationally recognized expert committees or consensus panels based on scientific evidence. Includes:</p> <ul style="list-style-type: none"> • Clinical practice guidelines • Consensus panels/position statements
	Level V	<p>Based on experiential and non-research evidence. Includes:</p> <ul style="list-style-type: none"> • Scoping reviews • Integrative reviews • Literature reviews • Quality improvement, program or financial evaluation • Case reports • Opinion of nationally recognized expert(s) based on experiential evidence

Research Evidence Appraisal Tool
Appendix E

Does this evidence answer the EBP question?	<input type="checkbox"/> Yes → Continue appraisal <input type="checkbox"/> No → STOP, do not continue evidence appraisal
Article Summary Information	
Article Title:	
Author(s):	Number:
Population, size, and setting:	Publication date:
Complete after appraisal	
Evidence level and quality rating:	
Study findings that help answer the EBP question:	
Article Appraisal Workflow	
Is this study:	
<input type="checkbox"/> QuaNtitative (collection, analysis, and reporting of numerical data) Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provide observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests. <ul style="list-style-type: none"> ➔ For QuaNtitative leveling of a single research study go to Section IA ➔ For QuaNtitative leveling of multiple research studies go to Section IB 	
<input type="checkbox"/> QuaLitative (collection, analysis, and reporting of narrative data) Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations. <ul style="list-style-type: none"> ➔ For QuaLitative leveling of a single research study go to Section II A ➔ For QuaLitative leveling of multiple research studies go to Section II B 	
<input type="checkbox"/> Mixed methods (results reported both numerically and narratively) A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. <i>Note:</i> QuaNtitative studies with open-ended questions, or quaLitative studies with multiple-choice questions, may not necessarily meet criteria for mixed methods research. In order to qualify as mixed methods they must truly employ the methodologies of both types of research and generate a better understanding of the research question than using either approach alone. <ul style="list-style-type: none"> ➔ For Mixed Methods leveling of single and mixed studies review go to Section III 	

Research Evidence Appraisal Tool
Appendix E

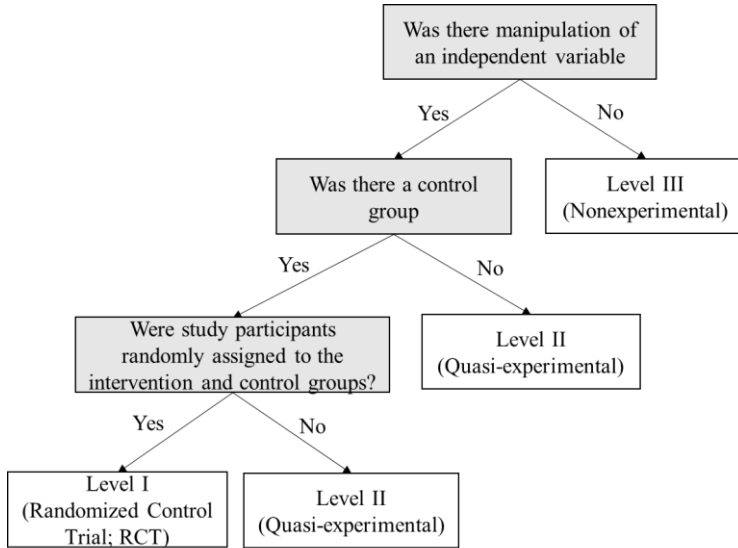
Section I: QuaNtitative Appraisal

A

Is this a report of a single research study?

- Yes → Continue to decision tree
 No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Level III studies lack manipulation of an independent variable; can be descriptive, comparative, or correlational; and often use secondary data

After determining the level of evidence, determine the quality of evidence using the considerations below:

Quality

Does the researcher identify what is known and not known about the problem?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Does the researcher identify how the study will address any gaps in knowledge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Was the purpose of the study clearly presented?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Was the literature review current (most sources within the past five years or a seminal study)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Was the sample size sufficient based on the study design and rationale?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If there is a control group:			
• Were the characteristics and/or demographics similar in both the control and intervention groups?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
• If multiple settings were used, were the settings similar?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
• Were all groups equally treated except for the intervention group(s)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Are data collection methods described clearly?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was instrument validity discussed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
If surveys or questionnaires were used, was the response rate $\geq 25\%$?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Were the results presented clearly?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If tables were presented, was the narrative consistent with the table content?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Were study limitations identified and addressed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Were conclusions based on results?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Research Evidence Appraisal Tool
Appendix E

Section I: QuaNtitative Appraisal (continued)

Circle the appropriate quality rating below:

Quality

A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on a comprehensive literature review that includes thorough reference to scientific evidence.

B Good quality: Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on a fairly comprehensive literature review that includes some reference to scientific evidence.

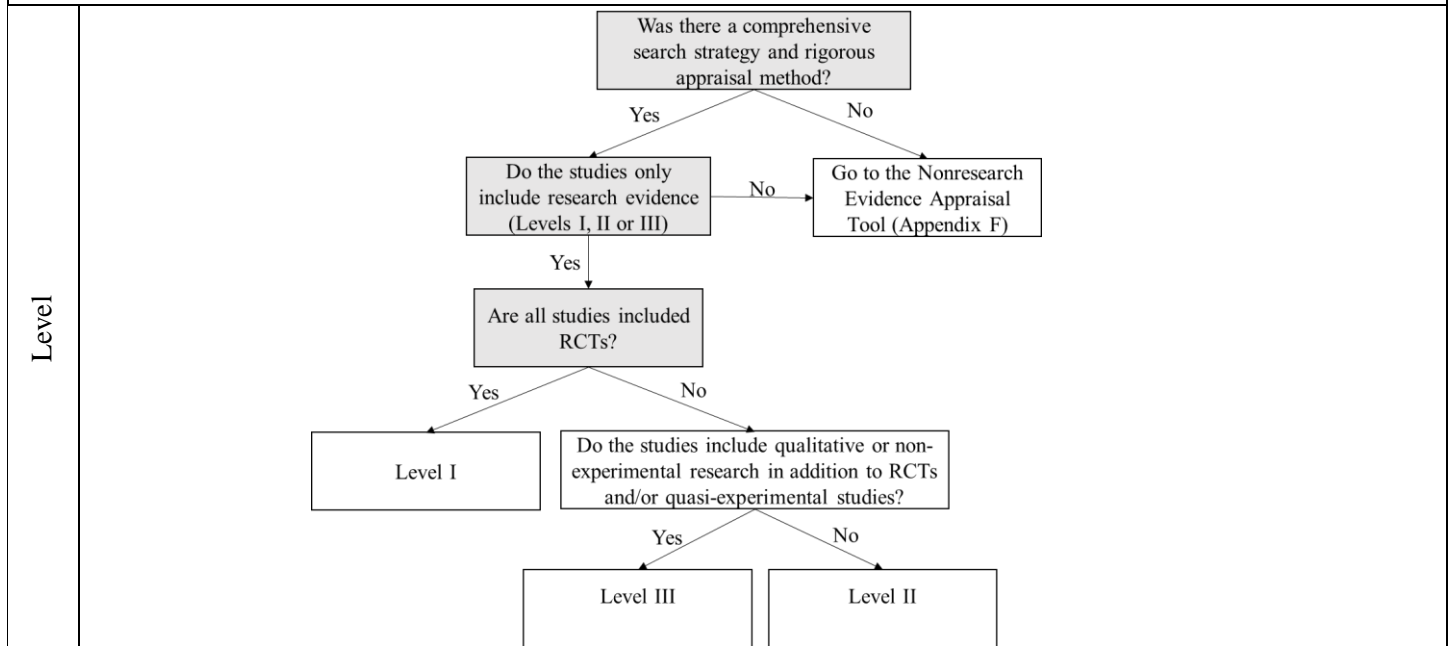
C Low quality: Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Research Evidence Appraisal Tool
Appendix E

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence? Yes → Continue to decision tree No → Use the Nonresearch Evidence Appraisal tool (Appendix F)



After determining level of evidence, determine the quality of evidence using the considerations below:

Quality	Were the variables of interest clearly identified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Was the search comprehensive and reproducible?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	<ul style="list-style-type: none"> • Key terms stated • Multiple databases were searched and identified • Inclusion and exclusion criteria stated 	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were there a flow diagram that included the number of studies eliminated at each level of review?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were methods for appraising the strength of evidence (level and quality) described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were conclusions based on results?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	<ul style="list-style-type: none"> • Results were interpreted • Conclusions flowed logically from the research question, results, and interpretation 	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did the systematic review include a section addressing limitations and how they were addressed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Research Evidence Appraisal Tool
Appendix E

Section I: Quantitative Appraisal (continued)

Circle the appropriate quality rating below:

Quality

A High quality: Topic clearly defined, literature search methods are clear and appropriate, literature thoroughly appraised and synthesized, recommendations consistent with findings, definitive conclusions can be drawn.

B Good quality: Topic defined, literature search methods are clear and appropriate, literature appraised and reasonably synthesized, recommendations consistent with findings, fairly definitive conclusions can be drawn

C Low quality: Topic not well defined, search methods lack clarity, may or may not be appropriate, literature appraisal and synthesis insufficient, recommendations inconsistent with findings, conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Research Evidence Appraisal Tool
Appendix E

Section II: QuaLitative Appraisal

A

Is this a report of a single research study?

Yes → This is Level III evidence

No → Go to Section II: B

After determining the level of evidence, determine the quality of evidence using the considerations below:

Quality	Was there a clearly identifiable and articulated:		
	<ul style="list-style-type: none"> • Purpose? • Research question? • Justification for design and/or theoretical framework used? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No
	Do participants have knowledge of the subject the researchers are trying to explore?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were characteristics of study participants described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Does the researcher acknowledge and/or address their role and potential influence during data collection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Was sampling adequate, as evidenced by achieving data saturation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Does the researcher provide illustrations from the data?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	<ul style="list-style-type: none"> • If yes, do the provided illustrations support conclusions? 	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Is there congruency between the findings and the data?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Is there congruency between the research methodology and the:		
	<ul style="list-style-type: none"> • Research question(s) • Methods to collect data • Interpretation of results 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No
Are the discussion and conclusions congruent with the purpose and objectives, and supported by literature?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Research Evidence Appraisal Tool
Appendix E

Section II: QuaLitative Appraisal (continued)

Circle the appropriate quality rating below:

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry.

Evidence of at least half or all of the following is found in the report:

- *Transparency:* Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence:* Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification:* The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection and self-scrutiny:* Being continuously aware of how a researcher’s experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry:* Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation:* Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.

Quality

Record findings that help answer the EBP question on page 1

Research Evidence Appraisal Tool
Appendix E

Section II: QuaLitative Appraisal

B Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)? Yes → This is Level III evidence
 No → Use the Nonresearch Evidence Appraisal tool (Appendix F)

After determining the level of evidence, determine the quality of evidence using the considerations below:

Quality	Was the aim of the review clearly stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Were the search strategy and criteria for selecting primary studies clearly defined?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Was there a description of a systematic and thorough process for how data were analyzed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Were methods described for comparing findings from each study?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Were methods described for interpreting data?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Was sufficient data presented to support the interpretations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Did synthesis reflect:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• New insights?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Discovery of essential features of the phenomena?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• A fuller understanding of the phenomena?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are findings clearly linked to and match the data?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are findings connected to the purpose, data collection, and analysis?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Did the authors describe clearly how they arrived at the interpretation of the findings?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Circle the appropriate quality rating below:

High quality: The topic and aim of the review are clearly stated. Literature search methods are clear and appropriate. Data analysis well-described. Literature is thoroughly synthesized to generate a deeper understanding. Findings are thoroughly linked to data analysis. Definitive conclusions can be drawn.

Good Quality: Topic and aim of the review clearly stated. Literature search methods are adequate. Data analysis described. Literature reasonably synthesized to generate deeper understanding. Findings linked to data analysis. Fairly definitive conclusions can be drawn.

Low Quality: Topic and aim of review not well defined. Literature search methods lack clarity and may or may not be appropriate. Literature synthesis insufficient. Findings not sufficiently linked to data analysis. Definitive conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Research Evidence Appraisal Tool

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quantitative part of the study using Section IA (single research study) or Section IIB (multiple research studies). Evaluate the qualitative part of the study using Section IIA (single research study) or Section IIB (multiple research studies), then return here to complete the appraisal.

		Level	Quality
Level	Quantitative Portion		
	Qualitative Portion		
	<p>The level of mixed methods evidence is based on the sequence of data collection for a single research study. Quantitative data collection followed by qualitative (explanatory design) is based on the level of the quantitative portion. All other designs (exploratory, convergent, or multiphase) are Level III evidence.</p> <p>Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphase designs collect qualitative and quantitative data over more than one phase.</p> <p>A summary of multiple quantitative and qualitative studies is a mixed studies review and is Level III evidence.</p>		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods design appropriate to address the research question?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Circle the appropriate quality rating below:		
	<p>A High quality: Contains high to good quality quantitative and qualitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.</p> <p>B Good quality: Contains good-quality quantitative and qualitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.</p> <p>C Low quality: Contains good to low quality quantitative and qualitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.</p>		

Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool

Appendix F

Does this evidence answer the EBP question?		<input type="checkbox"/> Yes → Continue appraisal <input type="checkbox"/> No → STOP, do not continue evidence appraisal
Article Summary Information		
Article Title:		
Author(s):	Number:	
Population, size, and setting:	Publication date:	
Complete after appraisal:		
Evidence level and quality rating:		
Study findings that help answer the EBP question:		
Article Appraisal Workflow		
Level	Is this evidence:	This is...
	<input type="checkbox"/> A clinical practice guideline or a consensus/position statement ?	Level IV evidence, go to Section I: Level IV Appraisal to determine quality
	<input type="checkbox"/> A literature review or integrative review ?	Level V evidence, go to Section II, A: Level V Appraisal to determine quality
	<input type="checkbox"/> An expert opinion ?	Level V evidence, go to Section II, B: Level V Appraisal to determine quality
	<input type="checkbox"/> Case report ?	Level V evidence, go to Section II, C: Level V Appraisal to determine quality
	<input type="checkbox"/> An organizational experience (including quality improvement, financial or program evaluations)?	Level V evidence, go to Section II, D: Level V Appraisal to determine quality
	<input type="checkbox"/> Community standard, clinician experience, or consumer preference ?	Level V evidence, go to Section II, E: Level V Appraisal to determine quality

Nonresearch Evidence Appraisal Tool
Appendix F

Section I: Level IV Appraisal

Select the type of Level IV evidence

- Clinical practice guidelines** (systematically developed recommendations from nationally recognized experts based on research evidence or expert consensus panel)
- Consensus or position statement** (systematically developed recommendations, based on research and nationally recognized expert opinion, that guide members of a professional organization in decision-making for an issue of concern)

After selecting the type of Level IV evidence, determine the quality of evidence using the considerations below:

Are the types of evidence included identified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Were appropriate stakeholders involved in the development of recommendations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are groups to which recommendations apply and do not apply clearly defined?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Does each recommendation have an identified level of evidence stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are recommendations clear?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Circle the appropriate quality rating below:

Quality	<p>A High quality: Material officially sponsored by a professional, public, or private organization or a government agency; documentation of a systematic literature search strategy; consistent results with sufficient numbers of well-designed studies; criteria-based evaluation of overall scientific strength and quality of included studies and definitive conclusions; national expertise clearly evident; developed or revised within the past five years.</p> <p>B Good quality: Material officially sponsored by a professional, public, or private organization or a government agency; reasonably thorough and appropriate systematic literature search strategy; reasonably consistent results, sufficient numbers of well-designed studies; evaluation of strengths and limitations of included studies with fairly definitive conclusions; national expertise clearly evident; developed or revised within the past five years.</p> <p>C Low quality: Material not sponsored by an official organization or agency; undefined, poorly defined, or limited literature search strategy; no evaluation of strengths and limitations of included studies; insufficient evidence with inconsistent results; conclusions cannot be drawn; not revised within the past five years.</p>
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Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool

Appendix F

Section II: Level V Appraisal

A Select the type of article:

- Integrative review** (summary of research evidence and theoretical literature; analyzes, compares themes, notes gaps in the selected literature)
- Literature review** (summary of selected published literature including scientific and nonscientific, such as reports of organizational experience and opinions of experts)

After selecting the type of Level V evidence, determine the quality of evidence using the considerations below:

Is the purpose of the review clearly stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is literature relevant and up-to-date (most sources are within the past five years or classic)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are gaps in the literature identified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are recommendations made for future practice or study?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Additionally, for Integrative Reviews only:		
Was the literature search strategy clearly described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Was the literature appraised for strength and quality	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Of the literature reviewed, is there a meaningful analysis of the conclusions across the articles included in the review?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Circle the appropriate quality rating below:

Quality

Integrative Reviews:

A High quality: Subject matter is clearly defined, literature search strategies are clear and thorough, the authors undertook a meaningful analysis of included evidence, conclusions are clear, gaps and limitations thoroughly addressed

B Good quality: Subject matter is defined, literature search strategy reasonably clear with possible gaps, the author undertook a somewhat meaningful analysis of included evidence, fairly clear conclusions, gaps and limitations reasonably addressed

C Low quality: Subject matter not clearly defined, literature search strategy lacking transparency or thoroughness, lack of meaningful analysis of included evidence, conclusions cannot be drawn, limitations not addressed

Literature Reviews:

A High quality: Subject matter is clearly defined, literature is up-to-date, gaps and limitations thoroughly addressed, recommendations for future practice or study are clearly identified

B Good quality: Subject matter is defined, literature is mostly up-to-date, gaps and limitations reasonably addressed, recommendations for future practice or study are identified

C Low quality: Subject matter not clearly defined, literature is out-of-date, gaps and limitations not addressed, recommendations are not provided

Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool
Appendix F

Section II: Level V Appraisal (continued)

B

Select the type of article:

Expert opinion (opinion of one or more individuals based on clinical expertise)

After selecting the type of Level V evidence, determine the quality of evidence using the considerations below:

Quality	Does the author have relevant education and training?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Do they have relevant professional and academic affiliations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Have they previously been published in the area of interest?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Is there thorough citing of recent literature (within the past 5 years)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Have they been recognized by state, regional, national, or international groups for their expertise?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Are their publications well-cited by others?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

A web search can provide information about expertise

Circle the appropriate quality rating below:

A High quality: Expertise is clearly evident, draws definitive conclusions, and provides scientific rationale; thought leader in the field.

B Good quality: Expertise appears to be credible, draws fairly definitive conclusions, and provides a logical argument for opinions.

C Low quality: Expertise is not discernable or is dubious; conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool
Appendix F

Section II: Level V Appraisal (continued)

C Select the type of article:

Case report (an in-depth look at a person or group or another social unit)

After selecting the type of Level V evidence, determine the quality of evidence using the considerations below:

Is the purpose of the case report clearly stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the case report clearly presented?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the findings of the case report supported by relevant theory or research?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the recommendations clearly stated and linked to the findings?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Quality

Circle the appropriate quality rating below:

A High quality: Expertise is clearly evident, draws definitive conclusions, and provides scientific rationale; thought leader in the field.

B Good quality: Expertise appears to be credible, draws fairly definitive conclusions, and provides a logical argument for opinions.

C Low quality: Expertise is not discernable or is dubious; conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool
Appendix F

Section II: Level V Appraisal (continued)

D Select the type of article:

- Quality improvement** (cyclical method to examine workflows, processes, or systems within a specific organization)
- Financial evaluation** (economic evaluation that applies analytic techniques to identify, measure, and compare the cost and outcomes of two or more alternative programs or interventions)
- Program evaluation** (systematic assessment of the processes and/or outcomes of a program; can involve both quantitative and qualitative methods)

After selecting the type of Level V evidence, determine the quality of evidence using the considerations below:

Quality	Was the aim of the project clearly stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Was a formal QI method used for conducting or reporting the project (e.g., PDSA, SQUIRE 2.0)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Was the method fully described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Were process or outcome measures identified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Were results fully described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Was the interpretation clear and appropriate?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	Are components of cost/benefit or cost-effectiveness data described?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Circle the appropriate quality rating below:

A High quality: Clear aims and objectives; consistent results across multiple settings; formal quality improvement or financial evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence.

B Good quality: Clear aims and objectives; formal quality improvement or financial evaluation methods used; consistent results in a single setting; reasonably consistent recommendations with some reference to scientific evidence.

C Low quality: Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement/financial analysis method; recommendations cannot be made.

Record findings that help answer the EBP question on page 1

Nonresearch Evidence Appraisal Tool
Appendix F

Section II: Level V Appraisal (continued)

E Select the type of article:

- Community standard** (current practice for comparable settings in the community)
- Clinician experience** (knowledge gained through practice experience from the clinician perspective)
- Consumer preference** (knowledge gained through life experience from the patient's perspective)

Record the sources of information and the number of sources:

After selecting the type of Level V evidence, determine the quality of evidence using the considerations below:

Source of information has credible experience	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Opinions are clearly stated	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Evidence obtained is consistent	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Quality

Circle the appropriate quality rating below:

A High quality: Expertise is clearly evident, draws definitive conclusions, and provides scientific rationale; thought leader in the field.

B Good quality: Expertise appears to be credible, draws fairly definitive conclusions, and provides a logical argument for opinions.

C Low quality: Expertise is not discernable or is dubious; conclusions cannot be drawn.

Record findings that help answer the EBP question on page 1

Individual Evidence Summary Tool
Appendix G



EBP Question:										
Reviewer name(s)	Article number	Author, date, and title	Type of evidence	Population, size, and setting	Intervention	Findings that help answer the EBP question	Measures used	Limitations	Evidence level and quality	Notes to team

Johns Hopkins Nursing Evidence-Based Practice
Individual Evidence Summary Tool (Appendix G)

Directions for use of the Individual Evidence Summary Tool

Purpose: Use this form to document and collate the results of the review and appraisal of each piece of evidence in preparation for evidence synthesis. The table headers indicate important elements of each article that will contribute to the synthesis process. The data in each cell should be complete enough that the other team members can gather all relevant information related to the evidence without having to go to each source article.

See Chapter 11, Lessons from Practice, for examples of completed tools.

Reviewer name(s):

Record the member(s) of the team who are providing the information for each article. This will provide tracking if there are follow-up items or additional questions on an individual piece of evidence.

Article number:

Assign a number to each piece of evidence included in the table. This organizes the individual evidence summary and provides an easy way to reference articles.

Author, date, and title:

Record the last name of the first author of the article, the publication/communication date, and the title. This will help track articles throughout the literature search, screening, and review process. It is also helpful when someone has authored more than one publication included in the review.

Type of evidence:

Indicate the type of evidence for each source. This should be descriptive of the study or project design (e.g., randomized control trial, meta-analysis, mixed methods, qualitative, systematic review, case study, literature review) and not simply the level on the evidence hierarchy.

Population, size, and setting:

For research evidence, provide a quick view of the population, number of participants, and study location. For non-research evidence, population refers to the target audience, patient population, or profession. Non-research evidence may or may not have a sample size and/or location as found with research evidence.

Intervention:

Record the intervention(s) implemented or discussed in the article. This should relate to the intervention or comparison elements of your PICO question.

Findings that help answer the EBP question:

List findings from the article that directly answer the EBP question. These should be succinct statements that provide enough information that the reader does not need to return to the original article. Avoid directly copying and pasting from the article.

Johns Hopkins Nursing Evidence-Based Practice
Individual Evidence Summary Tool (Appendix G)

Measures used:

These are the measures and/or instruments (e.g., counts, rates, satisfaction surveys, validated tools, subscales) the authors used to determine the answer to the research question or the effectiveness of their intervention. Consider these measures as identified in the evidence for collection during the implementation of the EBP team's project.

Limitations:

Provide the limitations of the evidence—both as listed by the authors as well as your assessment of any flaws or drawbacks. Consider the methodology, quality of reporting, and generalizability to the population of interest. Limitations should be apparent from the team's appraisals using the Research and Non-Research Evidence Appraisal Tools (Appendices E and F). It can be helpful to consider the reasons an article did not receive a "high" quality rating because these reasons are limitations identified by the team.

Evidence level and quality:

Using the Research and Non-Research Evidence Appraisal tools (Appendices E and F), record the level (I-V) and quality (A, B or C) of the evidence. When possible, at least two reviewers should determine the level and quality.

Notes to team:

The team uses this section to keep track of items important to the EBP process not captured elsewhere on this tool. Consider items that will be helpful to have easy reference to when conducting the evidence synthesis.

Synthesis and Recommendations Tool
Appendix H



EBP Question:			
Strength		Number of Sources (Quantity)	Synthesized Findings With Article Number(s) (This is <i>not</i> a simple restating of information from each individual evidence summary—see directions)
Level	Overall Quality Rating (Strong, good, or low)		
Level I ▪ Experimental studies			
Level II ▪ Quasi-experimental studies			
Level III ▪ Nonexperimental, including qualitative studies			
Level IV ▪ Clinical practice guidelines or consensus panels			
Level V ▪ Literature reviews, QI, case reports, expert opinion			

Synthesis and Recommendations Tool
Appendix H

Where does the evidence show consistency?
Where does the evidence show inconsistency?
Best evidence recommendations (taking into consideration the quantity, consistency, and strength of the evidence):
Based on your synthesis, select the statement that best describes the overall characteristics of the body of evidence.
<input type="checkbox"/> Strong & compelling evidence, consistent results → Recommendations are reliable; evaluate for organizational translation.
<input type="checkbox"/> Good evidence & consistent results → Recommendations may be reliable; evaluate for risk and organizational translation.
<input type="checkbox"/> Good evidence but conflicting results → Unable to establish best practice based on current evidence; evaluate risk, consider further investigation for new evidence, develop a research study, or discontinue the project.
<input type="checkbox"/> Little or no evidence → Unable to establish best practice based on current evidence; consider further investigation for new evidence, develop a research study, or discontinue the project.

Synthesis and Recommendations Tool

Appendix H

Directions for use of the Synthesis and Recommendations Tool

See Chapter 11, Lessons from Practice, for examples of completed tools.

Purpose:

This tool guides the EBP team through the process of synthesizing the pertinent findings from the Individual Evidence Summary (Appendix G), sorted by evidence level, to create an overall picture of the body of the evidence related to the PICO question. The synthesis process uses quantity, strength (level and quality), and consistency to generate the best evidence recommendations for potential translation.

Overall quality rating and the total number of sources:

Record the overall quality rating and the number of sources for each level (strong, good, or low), ensuring agreement among the team members.

Synthesized findings:

This section captures key findings that answer the EBP question. Using the questions below, generate a comprehensive synthesis by combining the different pieces of evidence in the form of succinct statements that enhance the team's knowledge and generate new insights, perspectives, and understandings into a greater whole. The following questions can help guide the team's discussion of the evidence:

- How can the evidence in each of the levels be organized to produce a more comprehensive understanding of the big picture?
- What themes do you notice?
- What elements of the intervention/setting/sample seem to influence the outcome?
- What are the important takeaways?

Avoid repeating content and/or copying and pasting directly from the Individual Evidence Summary Tool. Record the article number(s) used to generate each synthesis statement to make the source of findings easy to identify.

Using this synthesis tool requires not only the critical thinking of the whole team but also group discussion and consensus building. The team reviews the individual evidence summary of high- and good-quality articles, uses subjective and objective reasoning to look for salient themes, and evaluates information to create higher-level insights. They include and consider the strength and consistency of findings in their evaluation.

Where does the evidence show consistency/inconsistency?

EBP teams must consider how consistent the results are across studies. Do the studies tend to show the same conclusions, or are there differences? The synthesized evidence is much more compelling when most studies have the same general results or point in the same general direction. The synthesized evidence is less compelling when the results from half the studies have one indication, while the findings from the other half point in a different direction. The team should identify the points of consistency among the evidence as well as areas where the inconsistency is apparent. Both factors are important to consider when developing recommendations or determining the next steps.

Synthesis and Recommendations Tool

Appendix H

Best evidence recommendations:

In this section, the EBP team takes into consideration all the above information related to the strength, quantity, and consistency of the synthesized findings at each level to generate best practice recommendations from the evidence. Consider:

- What is the strength and quantity of studies related to a specific evidence recommendation?
- Is there a sufficient number of high-strength studies to support one recommendation over another?
- Are there any recommendations that can be ruled out based on the strength and quantity of the evidence?
- Does the team feel the evidence is of sufficient strength and quantity to be considered a best evidence recommendation?

Recommendations should be succinct statements that distill the synthesized evidence into an answer to the EBP question. The team bases these recommendations on the evidence and does not yet consider their specific setting. Translating the recommendations into action steps within the team's organization occurs in the next step (Translation and Action Planning Tool, Appendix I).

Based on the synthesis, which statement represents the overall body of the evidence?

Choose the statement that best reflects the strength and congruence of the findings. This determination will help the team to decide the next steps in the translation process.

When evidence is *strong* (includes multiple high-quality studies of Level I and Level II evidence), compelling, and consistent, EBP teams can have greater confidence in best practice recommendations and should begin organizational translation

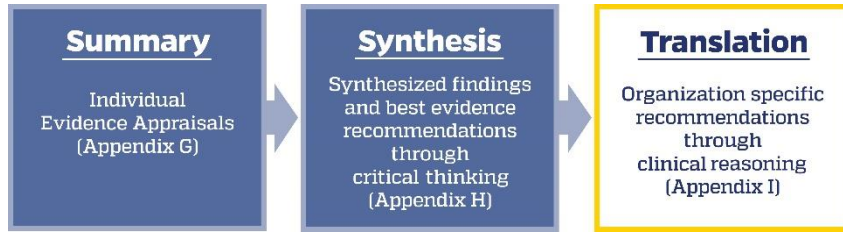
When most of the evidence is *good* (high-quality Level II and Level III) *and consistent* or *good but conflicting*, the team should proceed cautiously in making practice changes. In this instance, translation typically includes evaluating risk and careful consideration for organizational translation.

The team makes practice changes primarily when evidence exists that is of high to good strength. Never make practice changes on *little to no evidence* (low-quality evidence at any level or Level IV or Level V evidence alone). Nonetheless, teams have a variety of options for actions that include but are not limited to, creating awareness campaigns, conducting informational and educational updates, monitoring evidence sources for new information, and designing research studies.

The exact quantity of sources needed to determine the strength of the evidence is subjective and depends on many factors, including the topic and the amount of available literature. The EBP team should discuss what they consider sufficient given their knowledge of the problem, literature, and setting

Translation and Action Planning Tool

Appendix I



Translation

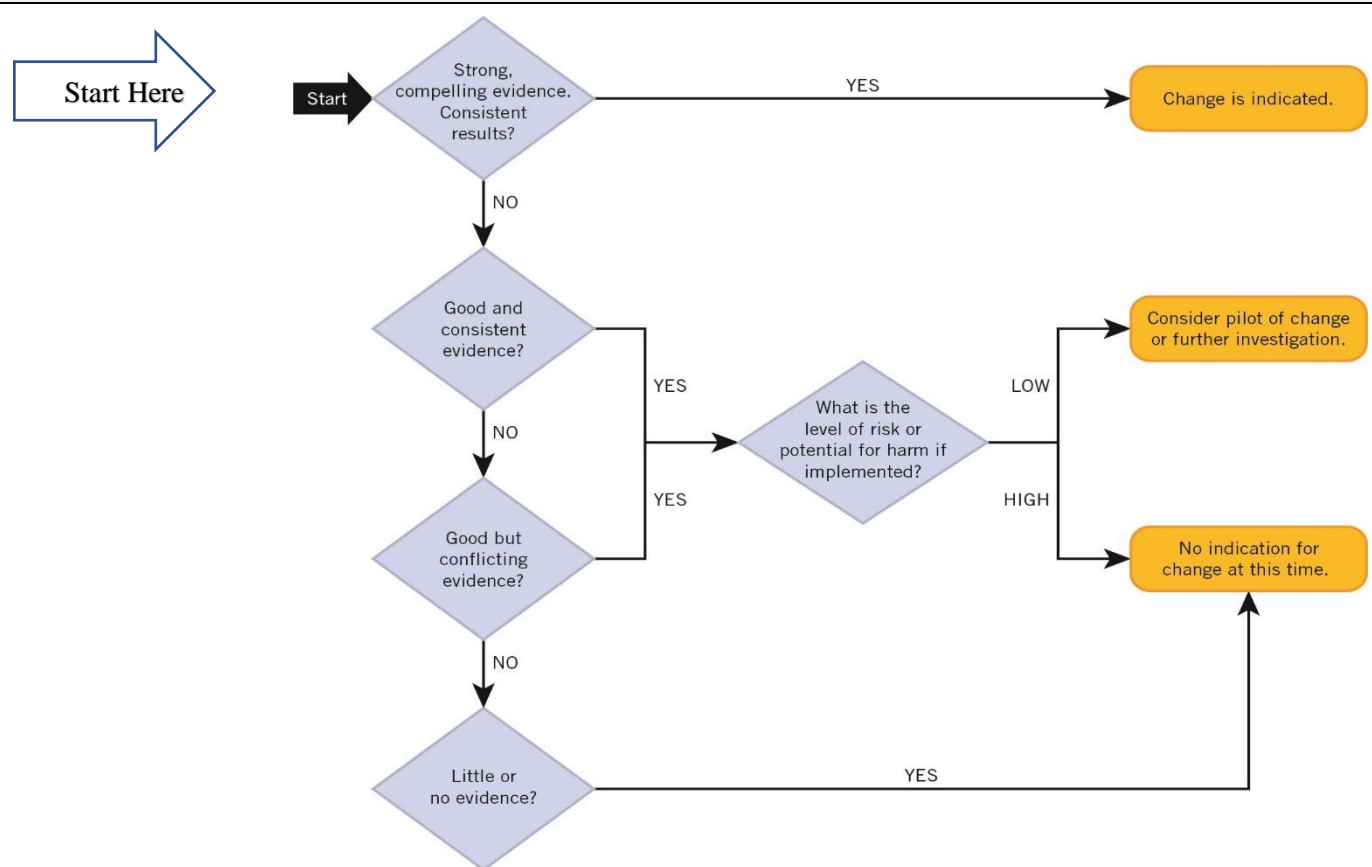
Select the statement that best describes the overall characteristics of the body of evidence from the team’s synthesis and recommendations (Appendix H):

- Strong & compelling evidence, consistent results
- Good but conflicting evidence
- Good & consistent evidence
- Little or no evidence

What is the level of safety risk associated with the intervention?

- High
- Low

Translation Assessment Flowchart:



Based on the Translation Assessment, select the course of action:

- Change is indicated (system or process improvement, or practice), go to Section I
- Consider a pilot of the change or further investigation for new evidence, go to Section I.
- No indication for change or consider further investigation for new evidence, develop a research study or discontinue project, go to Section II.

Translation and Action Planning Tool

Appendix I

Section I: If change is indicated, generate organization-specific recommendations by assessing the best-evidence recommendations for feasibility, fit, and acceptability:

<p>Feasibility Extent to which the team evaluates and believes that the change is low risk, doable, and can be successfully implemented within a given organization or setting.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> The change is low risk. <input type="checkbox"/> Few, if any, barriers identified, and the time, effort, and resources to overcome them is reasonable. <input type="checkbox"/> Sponsors or leaders share their point of view, endorse and support the change
<p>Fit Compatibility of a change with end-user workflow and consumer expectations; and/or the perceived relevance of the change in addressing the problem and in answering the PICO question within a given practice setting.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> The change aligns with unit and/or departmental priorities. <input type="checkbox"/> The change is suitable and seems like a good match with end-user workflow. <input type="checkbox"/> The change is applicable to the problem and answers the PICO question.
<p>Acceptability Extent to which stakeholders and organizational leadership perceive the change to be agreeable, palatable, satisfactory, and reasonable.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> The change aligns with organizational priorities. <input type="checkbox"/> The change meets the approval of stakeholders and organizational leadership. <input type="checkbox"/> Stakeholders and leaders like and welcome the change and find it appealing.

Organization-specific recommendations:

Section II: When a change or pilot is not indicated, what, if any, next steps does the EBP team recommend?

Translation and Action Planning Tool
Appendix I

Action Planning				
Complete the following activities to ensure successful implementation:				
<ul style="list-style-type: none"> <input type="checkbox"/> Secure a project leader <input type="checkbox"/> Identify change champions <input type="checkbox"/> Consider whether translation activities require different or additional members <input type="checkbox"/> Identify objectives and related tasks <input type="checkbox"/> Determine dates to complete tasks <input type="checkbox"/> Identify observable pre and post measures 				
Identify strengths that can be leveraged to overcome barriers to ensure the success of the change:				
Resources or Strengths	Barriers	Plan to Overcome Barriers by Leveraging Strengths as Appropriate		
Which of the following will be affected by this change? (<i>Select all that apply</i>)				
<input type="checkbox"/> Electronic health record <input type="checkbox"/> Workflow <input type="checkbox"/> Policies and/or procedures <input type="checkbox"/> Other _____				
Identify and secure the resources and/or funding required for translation and implementation: (<i>Check all that apply</i>)				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Personnel costs <input type="checkbox"/> Supplies/equipment <input type="checkbox"/> Technology <input type="checkbox"/> Education or further training </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Content or external experts <input type="checkbox"/> Dissemination costs (conference costs, travel) <input type="checkbox"/> Other: _____ </td> </tr> </table>			<input type="checkbox"/> Personnel costs <input type="checkbox"/> Supplies/equipment <input type="checkbox"/> Technology <input type="checkbox"/> Education or further training	<input type="checkbox"/> Content or external experts <input type="checkbox"/> Dissemination costs (conference costs, travel) <input type="checkbox"/> Other: _____
<input type="checkbox"/> Personnel costs <input type="checkbox"/> Supplies/equipment <input type="checkbox"/> Technology <input type="checkbox"/> Education or further training	<input type="checkbox"/> Content or external experts <input type="checkbox"/> Dissemination costs (conference costs, travel) <input type="checkbox"/> Other: _____			

Translation and Action Planning Tool

Appendix I

Outcomes Measurement Plan				
What is/are the goal(s) of the project?			Desired completion date:	
How will you know if you are successful?	Types of Outcomes	Selected Metrics	Source	Frequency
	<input type="checkbox"/> Clinical (e.g., vital signs, infection rates, fall rates, adverse events)			
	<input type="checkbox"/> Functional (e.g., activities of daily living, quality of life, self-medication administration)			
	<input type="checkbox"/> Perceptual (e.g., satisfaction, care experience, timeliness of response)			
	<input type="checkbox"/> Process/Intervention (e.g., care coordination, immunization, bereavement support)			
<input type="checkbox"/> Organization/Unit-Based (e.g., staffing levels, length of stay, readmissions)				
Work Breakdown Structure				
High-Level Deliverable	Associated Tasks and Sub-Tasks	Start Date	End Date	Responsible Party

Translation and Action Planning Tool

Appendix I

Translation and Action Planning Tool

Appendix I

See Chapter 11, Lessons from Practice, for examples of completed tools.

Directions for use of the Translation and Action Planning Tool

Purpose:

This tool guides the EBP team through the process of analyzing the best-evidence recommendations for translation into the team's specific setting. The translation process considers the strength, consistency, risk, fit, and acceptability of the best-evidence recommendations. The team uses both critical thinking and clinical reasoning to generate site-specific recommendations.

Translation Section

What is the overall state of the evidence from the team's synthesis and recommendations (Appendix H)?

Consult the Synthesis and Recommendations Tool (Appendix H) and record the group's determination regarding the overall description of the state of the evidence.

What is the level of safety risk associated with the intervention?

Different interventions carry different levels and types of risks. As a group, the EBP team should discuss the potential for harm to patients, staff, or the community associated with the best-evidence recommendations. While other factors, such as monetary risks, may be important, this question refers specifically to dangers related to safety. Select "high" or "low" from the list of options.

Based on the Translation Assessment Flowchart, select the course of action:

Use the Translation Assessment Flowchart to determine the next steps for potential translation. Select the course of action indicated from the flowchart.

If change is indicated, generate organization-specific recommendations by assessing the best-evidence recommendations for feasibility, fit, and acceptability:

The EBP team uses the prompts to assess the feasibility, fit, and acceptability of the best-evidence recommendations to determine the likelihood of successful implementation and to generate recommendations specific to their setting. Feasibility, fit, and acceptability take into account the practice setting's characteristics such as culture, norms, beliefs, structures, priorities, workflow, and resources. Depending on the setting, organization-specific recommendations may mirror the best-evidence recommendations, differ significantly, or be deemed inappropriate for implementation by the organization. List recommendations for the organization in the space provided in a series of actionable and concise statements. If they differ from the best-evidence recommendations, include information for feasibility, fit, and acceptability-related changes.

Feasibility: The extent to which the team evaluates and believes that the change is low risk, doable, and can be successfully implemented within a given organization or setting.

Fit: The compatibility of a change with end-user workflow and consumer expectations; and/or the perceived relevance of the change in addressing the problem and in answering the PICO question within a given practice setting.

Acceptability: The extent to which stakeholders and organizational leadership perceive the change to be agreeable, palatable, satisfactory, and reasonable.

Translation and Action Planning Tool

Appendix I

When a change or pilot is not undertaken, what, if any, next steps does the EBP team recommend?

If the team cannot recommend a change or pilot, record future directions for the project. This might include proposing a research study, waiting until more evidence becomes available, or discontinuing the project altogether.

Action Planning Section

Complete the following activities to ensure successful translation:

This list provides steps to assist the team with completing the practice change(s) associated with their EBP project.

Identify strengths that can be leveraged to overcome barriers to ensure the success of the change:

This analysis allows teams to identify barriers to implementation and potentially mitigate them using inherent strengths and resources. You may find specific challenges that will likely impact the ability to deliver on the action plan. Though these obstacles can get in the way, knowing about them up front is helpful so that you can engage support and create a plan to move forward.

Consider whether or how this change will impact workflows and processes:

This section assists the team in considering the downstream effects of a change. For example, will adjustments need to be made to the electronic medical record to accommodate the change, or will this change impact the workflow of any other staff who have not been considered?

Identify and secure the resources and/or funding required for translation and implementation:

Use this as a guide to consider and plan for financial obligations that may be part of the rollout.

Outcomes Measurement Plan

What is/are the goal(s) of the project?

Record what the team hopes to accomplish by implementing the change(s). These can be high-level statements used to inform the measurement plan and implementation.

Desired completion date:

Record when the team plans to complete the first stage of the project. The team determines the anticipated implementation date and the outcomes data that will be needed to evaluate success. This can be updated throughout implementation to reflect adjustments to the timeline.

How will you know if you are successful?

Use this table to agree upon outcomes the team will collect and analyze to monitor the success of the project. There are different aspects to practice change, and frequently different measures are used to monitor uptake, attitudes, and outcomes. Select as many as the team feels are necessary to gain an accurate picture of ongoing impact. Record the specific metric(s) the team will measure within the outcome categories, how the metrics will be obtained, and how often. Outcomes can be added or changed as the review of the literature is completed and the translation planning begins.

Translation and Action Planning Tool

Appendix I

Metrics let you know whether the change was successful. They have a numerator and a denominator and are typically expressed as rates or percentages. For example, a metric for the measure falls-with-injury would be the number of falls with injury (numerator) divided by 1,000 patient days (denominator). Other examples of metrics include the number of direct care RNs (numerator) on a unit divided by the total number of direct care staff (denominator); or the number of medication errors divided by 1,000 orders.

Work Breakdown Structure:

A Work Breakdown Structure (WBS) is a deliverable-oriented prioritized list of the steps needed to accomplish the project objectives and create the required deliverables.

Consider all the categories of work (high-level deliverables) necessary to implement this change. What tasks must be accomplished first for each deliverable to move forward? When must they be completed to stay on track? For example, if a high-level deliverable is needed to implement a protocol, list all tasks to accomplish it. Record when the team must begin and complete the task, and which member(s) are responsible. If possible, list a specific person or role to create ownership of work.

Publication Guide

Appendix J

Template for Publishing an Evidence-Based Practice Project

Title and Abstract	
	<p>Title: Identifies the report/project as an evidence-based project</p>
	<p>Abstract: Provide a summary that includes, as applicable: the rationale for the EBP project, with EBP question, literature search and appraisal methods, results, best-evidence synthesis, and organizational translation recommendations.</p>

Introduction	
Appendix B	<p>Rationale for the EBP Project: Describe the problem, internal data to validate the problem, the problem's importance, risks of not addressing the problem, and the current practice.</p>
Appendix B	<p>Available Knowledge: Include what is currently known about the problem from the literature to create a broad view (e.g., organizationally, nationally, and globally).</p>
Appendix B	<p>EBP Question: Provide the EBP question being addressed using the PICO format.</p>

Methods	
	<p>Information Sources: Describe the sources (e.g., databases, standards, clinical practice guidelines, organizational data, evidence-based professional organization position statements, consensus studies) used in the evidence search.</p>
Appendix B	<p>Search Methods: Describe the inclusion and exclusion criteria, date ranges, and rationale for search strategy limits.</p>
Appendix B	<p>Keywords: List the keywords, phrases, or search concepts used for the literature search.</p>
	<p>Article Screening: Describe the process for title, abstract, and full-text screening of literature search results.</p>

Publication Guide

Appendix J

	<p>Data Collection and Article Appraisal Process: Explain the process for completing the article appraisal process, including the model used (Johns Hopkins Evidence-Based Model and Guidelines), the number of reviewers, elements collected in the individual evidence summary tool, and how the team resolved discrepancies/reached consensus.</p>
	<p>Synthesis, Recommendations, and Translation Process: Describe the process used to synthesize the evidence, generate best-evidence recommendations, and translate this to the team’s setting.</p>

Results	
	<p>Study Selection: Provide the number of articles screened by the EBP team, including the final number of articles included in the synthesis and recommendations. Consider using a flow diagram.</p>
Appendix G	<p>Study Characteristics: Provide the relevant information from the individual evidence summary for all included articles (e.g., author, type of evidence, population size and setting, intervention, findings that answer the EBP question, measures used, limitations, and level and quality rating) in table format.</p>
	<p>Findings of Individual Studies: Consider the value of including additional elements of interest in each study by the visual display (table, figure, or chart) to provide more in-depth description and clarity.</p>

Discussion	
Appendix H	<p>Synthesis of Evidence: Synthesize the findings of the overall evidence review including the strength (level, quality), quantity, and best evidence recommendations.</p>
	<p>Limitations: Discuss the limitations of the project. This can include limitations of the articles within the review (e.g., low quality, small sample sizes) and limitations of the review process itself (e.g., difficulty retrieving all relevant articles).</p>
	<p>Conclusions: Include a brief restatement of the problem and why it is important and a broad interpretation of relevant findings—avoid summarizing key points. Show whether, or to what extent, the project succeeded in answering the PICO question and addressing the problem.</p>

Publication Guide

Appendix J

Implications	
Appendix C & I	<p>Translation Strategies: Describe the organization-specific recommendations and action plan, including considerations of risk, fit, feasibility, acceptability, and stakeholder engagement.</p>
Appendix I	<p>Outcomes: Identify the measure used to determine the success of any changes associated with the project. If the project has been implemented, report on relevant outcomes.</p>

Directions for Use of the Dissemination Tool

Purpose: This template is a structured guide for writing a manuscript for publishing an evidence-based practice project. Each section above includes the aspects of the project required for developing a robust manuscript. It can also help divide the writing among team members and provides guidance on which elements of the EBP project fall under each heading (introduction, methods, results, and conclusion) without redundancy. When used, the JHEBP Model tools provide much of the information needed for a manuscript. Use the appendix references to locate the team’s previous work. This template was created with reference to the SQUIRE 2.0 guidelines (Ogrinc et al., 2016), PRISMA Statement (Moher et al., 2009), and the Evidence-Based Practice Process Quality Assessment Guidelines (Lee et al., 2013).

References

Lee, M. C., Johnson, K. L., Newhouse, R. P., & Warren, J. I. (2013). Evidence-based practice process quality assessment: EPQA guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140–149. <https://doi.org/10.1111/j.1741-6787.2012.00264.x>

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & the PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ*, 339, b2535. <https://doi.org/10.1136/bmj.b2535>

Ogrinc, G., Davies, L., Goodman, D., Batalden, P. B., Davidoff, F., & Stevens, D. (2016). SQUIRE 2.0 (Standards for Quality Improvement Reporting Excellence): Revised publication guidelines from a detailed consensus process. *BMJ Quality and Safety*, 25(12), 986–992. <https://doi.org/10.1136/bmjqs-2015-004411>