### Appendix E: Research Evidence Appraisal Tool

**Article Title:**

**Number:**

**Author(s):**

**Publication Date:**

**Journal:**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Sample (Composition &amp; size):</th>
</tr>
</thead>
</table>

**Does this evidence address my EBP question?** □Yes □No

Do not proceed with appraisal of this evidence

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**Level of Evidence (Study Design)**

A. Is this a report of a single research study? *If No, go to B.*

1. Was there an intervention? □Yes □No

2. Was there a control group? □Yes □No

3. Were study participants randomly assigned to the intervention and control groups? □Yes □No

If Yes to all three, this is a Randomized Controlled Trial (RCT) or Experimental Study

→ □ LEVEL I

If Yes to #1 and #2 and No to #3, OR Yes to #1 and No to #2 and #3, this is Quasi Experimental (some degree of investigator control, some manipulation of an independent variable, lacks random assignment to groups, may have a control group)

→ □ LEVEL II

If Yes to #1 only, OR No to #1, #2, and #3, this is Non-Experimental (no manipulation of independent variable, can be descriptive, comparative, or correlational, often uses secondary data) or Qualitative (exploratory in nature such as interviews or focus groups, a starting point for studies for which little research currently exists, has small sample sizes, may use results to design empirical studies)

→ □ LEVEL III

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NEXT, COMPLETE THE BOTTOM SECTION ON THE FOLLOWING PAGE, “STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION”
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B. Is this a summary of multiple research studies? **If No, go to Non-Research Evidence Appraisal Form.**

1. Does it employ a comprehensive search strategy and rigorous appraisal method *(Systematic Review)*? **If No, use Non-Research Evidence Appraisal Tool; if Yes:**
   a. Does it combine and analyze results from the studies to generate a new statistic (effect size)? *(Systematic review with meta-analysis)*
   b. Does it analyze and synthesize concepts from qualitative studies? *(Systematic review with meta-synthesis)*

   **If Yes to either a or b, go to #2B below.**

2. For Systematic Reviews and Systematic Reviews with meta-analysis or meta-synthesis:
   a. Are all studies included RCTs?  
   → □ LEVEL I
   b. Are the studies a combination of RCTs and quasi-experimental or quasi-experimental only?  
   → □ LEVEL II
   c. Are the studies a combination of RCTs, quasi-experimental and non-experimental or non-experimental only?  
   → □ LEVEL III
   d. Are any or all of the included studies qualitative?  
   → □ LEVEL III

COMPLETE THE NEXT SECTION, “STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION”

STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION:

NOW COMPLETE THE FOLLOWING PAGE, “QUALITY APPRAISAL OF RESEARCH STUDIES”, AND ASSIGN A QUALITY SCORE TO YOUR ARTICLE
# Quality Appraisal of Research Studies

- Does the researcher identify what is known and not known about the problem and how the study will address any gaps in knowledge?  
  - Yes ☐  No ☐  NA ☐
- Was the purpose of the study clearly presented?  
  - Yes ☐  No ☐  NA ☐
- Was the literature review current (most sources within last 5 years or classic)?  
  - Yes ☐  No ☐  NA ☐
- Was sample size sufficient based on study design and rationale?  
  - Yes ☐  No ☐  NA ☐
- If there is a control group:
  - Were the characteristics and/or demographics similar in both the control and intervention groups?  
    - Yes ☐  No ☐  NA ☐
  - If multiple settings were used, were the settings similar?  
    - Yes ☐  No ☐  NA ☐
  - Were all groups equally treated except for the intervention group(s)?  
    - Yes ☐  No ☐  NA ☐
- Are data collection methods described clearly?  
  - Yes ☐  No ☐  NA ☐
- Were the instruments reliable (Cronbach’s α > 0.70)?  
  - Yes ☐  No ☐  NA ☐
- Was instrument validity discussed?  
  - Yes ☐  No ☐  NA ☐
- If surveys/questionnaires were used, was the response rate ≥ 25%?  
  - Yes ☐  No ☐  NA ☐
- Were the results presented clearly?  
  - Yes ☐  No ☐  NA ☐
- If tables were presented, was the narrative consistent with the table content?  
  - Yes ☐  No ☐  NA ☐
- Were study limitations identified and addressed?  
  - Yes ☐  No ☐  NA ☐
- Were conclusions based on results?  
  - Yes ☐  No ☐  NA ☐

# Quality Appraisal of Systematic Review with or without Meta-Analysis or Meta-Synthesis

- Was the purpose of the systematic review clearly stated?  
  - Yes ☐  No ☐
- Were reports comprehensive, with reproducible search strategy?  
  - Yes ☐  No ☐
  - Key search terms stated  
    - Yes ☐  No ☐  NA ☐
  - Multiple databases searched and identified  
    - Yes ☐  No ☐  NA ☐
  - Inclusion and exclusion criteria stated  
    - Yes ☐  No ☐  NA ☐
- Was there a flow diagram showing the number of studies eliminated at each level of review?  
  - Yes ☐  No ☐
- Were details of included studies presented (design, sample, methods, results, outcomes, strengths and limitations)?  
  - Yes ☐  No ☐
- Were methods for appraising the strength of evidence (level and quality) described?  
  - Yes ☐  No ☐
- Were conclusions based on results?  
  - Yes ☐  No ☐
  - Results were interpreted  
    - Yes ☐  No ☐  NA ☐
  - Conclusions flowed logically from the interpretation and systematic review question  
    - Yes ☐  No ☐  NA ☐
- Did the systematic review include both a section addressing limitations and how they were addressed?  
  - Yes ☐  No ☐

## Quality Rating Based on Quality Appraisal

**A High quality:** consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on 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, and fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence

**C Low quality or major flaws:** little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn