

# Johns Hopkins Nursing Evidence-Based Practice

## Appendix D: Evidence Level and Quality Guide

Evidence Levels	Quality Ratings
<p><b>Level I</b></p> <p>Experimental study, randomized controlled trial (RCT)</p> <p>Explanatory mixed method design that includes only a level I quantitative study</p> <p>Systematic review of RCTs, with or without meta-analysis</p>	<p><b>Quantitative Studies</b></p> <p>A <b>High quality</b>: 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.</p> <p>B <b>Good quality</b>: Reasonably consistent results; sufficient sample size for the study design; some control, fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence.</p> <p>C <b>Low quality or major flaws</b>: Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.</p>
<p><b>Level II</b></p> <p>Quasi-experimental study</p> <p>Explanatory mixed method design that includes only a level II quantitative study</p> <p>Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis</p>	<p><b>Qualitative Studies</b></p> <p>No commonly agreed-on principles exist for judging the quality of qualitative studies. It is a subjective process based on the extent to which study data contributes to synthesis and how much information is known about the researchers' efforts to meet the appraisal criteria.</p> <p><i>For meta-synthesis, there is preliminary agreement that quality assessments of individual studies should be made before synthesis to screen out poor-quality studies<sup>1</sup>.</i></p> <p>A/B <b>High/Good quality</b> is used for single studies and meta-syntheses<sup>2</sup>.</p> <p>The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:</p> <ul style="list-style-type: none"> <li>■ <b>Transparency</b>: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.</li> <li>■ <b>Diligence</b>: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.</li> <li>■ <b>Verification</b>: The process of checking, confirming, and ensuring methodologic coherence.</li> <li>■ <b>Self-reflection and -scrutiny</b>: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.</li> <li>■ <b>Participant-driven inquiry</b>: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.</li> <li>■ <b>Insightful interpretation</b>: Data and knowledge are linked in meaningful ways to relevant literature.</li> </ul> <p>C <b>Lower-quality</b> studies contribute little to the overall review of findings and have few, if any, of the features listed for High/Good quality.</p>
<p><b>Level III</b></p> <p>Nonexperimental study</p> <p>Systematic review of a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis</p> <p>Exploratory, convergent, or multiphase mixed methods studies</p> <p>Explanatory mixed method design that includes only a level III quantitative study</p> <p>Qualitative study Meta-synthesis</p>	

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<p><b>Level IV</b></p> <p>Opinion of respected authorities and/or nationally recognized expert committees or consensus panels based on scientific evidence</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>■ Clinical practice guidelines</li> <li>■ Consensus panels/position statements</li> </ul>	<p>A <b>High quality:</b> 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 <b>Good quality:</b> 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 <b>Low quality or major flaws:</b> 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>
<p><b>Level V</b></p> <p>Based on experiential and nonresearch evidence</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>■ Integrative reviews</li> <li>■ Literature reviews</li> <li>■ Quality improvement, program, or financial evaluation</li> <li>■ Case reports</li> <li>■ Opinion of nationally recognized expert(s) based on experiential evidence</li> </ul>	<p>Organizational Experience (quality improvement, program or financial evaluation)</p> <p>A <b>High quality:</b> Clear aims and objectives; consistent results across multiple settings; formal quality improvement, financial, or program evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence</p> <p>B <b>Good quality:</b> Clear aims and objectives; consistent results in a single setting; formal quality improvement, financial, or program evaluation methods used; reasonably consistent recommendations with some reference to scientific evidence</p> <p>C <b>Low quality or major flaws:</b> Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement, financial, or program evaluation methods; recommendations cannot be made</p> <p>Integrative Review, Literature Review, Expert Opinion, Case Report, Community Standard, Clinician Experience, Consumer Preference</p> <p>A <b>High quality:</b> Expertise is clearly evident; draws definitive conclusions; provides scientific rationale; thought leader(s) in the field</p> <p>B <b>Good quality:</b> Expertise appears to be credible; draws fairly definitive conclusions; provides logical argument for opinions</p> <p>C <b>Low quality or major flaws:</b> Expertise is not discernable or is dubious; conclusions cannot be drawn</p>