

**Project/Topic of your Clinical Question:** \_\_\_\_\_

**Reviewer:** \_\_\_\_\_ **Today's Date:** \_\_\_\_\_ **Final Evidence Level:** \_\_\_\_\_

**Article Title:** \_\_\_\_\_ **Mixed Methods** \_\_\_\_\_

\_\_\_\_\_ *Qualitative* \_\_\_\_\_

\_\_\_\_\_ *Quantitative* \_\_\_\_\_

**First Author:** \_\_\_\_\_

**Year:** \_\_\_\_\_ **Journal:** \_\_\_\_\_

**Do the study aim/purpose/objectives and inclusion/exclusion criteria assist in answering your clinical question?**  Yes  No  Unknown

- Study Aim/Purpose/Objectives:
  
- Inclusion Criteria:
  
- Exclusion Criteria:

**Is a mixed methods study congruent with the author's study purpose above?**  Yes  No  Unknown

*Comments:* \_\_\_\_\_

When reading the bolded questions, consider the bulleted questions to help answer the main question.  
 If you are uncertain of your skills in evidence evaluation, please consult a local evidence expert for assistance:  
 CCHMC Evidence Experts: <http://groups/ce/NewEBC/EBDMHelp.htm>  
 Unfamiliar terms can be found in the LEGEND Glossary: <http://groups/ce/NewEBC/EBCFiles/GLOSSARY-EBDM.pdf>

**VALIDITY: ARE THE RESULTS OF THE QUALITATIVE AND QUANTITATIVE STUDIES VALID OR CREDIBLE?**

**1. Were two different methods or approaches used in the study?**  Yes  No  Unknown

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| <b>Core Component:</b>                | <b>Supplemental Component:</b>        |
| <input type="checkbox"/> Qualitative  | <input type="checkbox"/> Qualitative  |
| <input type="checkbox"/> Quantitative | <input type="checkbox"/> Quantitative |

*Comments:* \_\_\_\_\_

**2. Complete the appropriate evidence appraisal forms for each component** (e.g., RCT, Descriptive, Qualitative Study).

**3. If applicable, was (were) the qualitative component(s) of the study well-developed** (i.e., [a] not [b]), based on appraisal using the Meaning/KAB – Qualitative Study evidence appraisal form?  Yes  No  Unknown

*Evidence Level(s):* \_\_\_\_\_  
*Comments:* \_\_\_\_\_

**4. If applicable, was (were) the quantitative component(s) of the study well-developed** (i.e., [a] not [b]), based on appraisal using the appropriate evidence appraisal form for that study design (e.g., RCT, Descriptive)?  Yes  No  Unknown

*Evidence Level(s):* \_\_\_\_\_  
*Comments:* \_\_\_\_\_

**RELIABILITY: ARE THESE VALID STUDY RESULTS IMPORTANT?**

5. Were the two components used to inform each other for joined, comprehensive results or discussion?

Yes  No  Unknown

*Note:* A mixed methods study includes combined data analysis or separate analysis with merged discussion. Separate analysis and separate discussion would not qualify as a "mixed methods" study.

*Comments:*

6. What are the main mixed results of the study? (e.g., Helpful data: Page #, Table #, Figures, Graphs)

7. Were the mixed results significant?

Yes  No  Unknown

*Comments:*

**APPLICABILITY: CAN I APPLY THESE VALID, IMPORTANT STUDY RESULTS TO TREATING MY PATIENTS?**

8. Can the results be applied to my population of interest?

Yes  No  Unknown

- Is the setting of the study applicable to my population of interest?
- Do the patient exposures, experiences, and outcomes apply to my population or question of interest?
- Were the patients in this study similar to my population of interest?

*Comments:*

9. Are my patient's and family's values and preferences satisfied by the knowledge gained from this study?

Yes  No  Unknown

*Comments:*

10. Would you include this study/article in development of a care recommendation?

Yes  No  Unknown

*Comments:*

**ADDITIONAL COMMENTS OR CONCLUSIONS ("TAKE-HOME POINTS"):**

**QUALITY LEVEL / EVIDENCE LEVEL**

- Consider each “No” answer and the degree to which this limitation is a threat to the rigor of the results.
- Consider an “Unknown” answer to one or more questions as a similar limitation to answering “No,” if the information is not available in the article.

1. The Core Component determines the number of the Evidence Level [2, 3, 4].
2. In order to assign an evidence level with an [a] for the mixed methods appraisal, at least 1 of the components must be assigned an evidence level with an [a].
3. Consider overall how well the mixed methods study was done, when assigning the final level.

**THE EVIDENCE LEVEL IS:**

**Good Quality Mixed Methods Study:**  [2a]  [3a]  [4a]

**Lesser Quality Mixed Methods Study:**  [2b]  [3b]  [4b]

**Not Valid, Reliable, Credible, or Applicable**

Table of Evidence Levels																				
DOMAIN OF CLINICAL QUESTION	TYPE OF STUDY / STUDY DESIGN																			
	Systematic Review Meta-Analysis	Meta-Synthesis	RCT <sup>+</sup>	CCT <sup>+</sup>	Psychometric Study	Qualitative Study	Cohort – Prospective	Cohort – Retrospective	Case – Control	Longitudinal (Before/After, Time Series)	Cross – Sectional	Descriptive Study Epidemiology Case Series	Quality Improvement (PDSA)	Mixed Methods Study	Decision Analysis Economic Analysis Computer Simulation	Guidelines	Case Reports N-of-1 Study	Bench Study	Published Expert Opinion	Local Consensus Published Abstracts
All Domains	1a 1b											4a 4b		2/3/4 a/b	5a 5b	5a 5b	5a 5b	5a 5b	5a 5b	5

<sup>+</sup> RCT = Randomized Controlled Trial; CCT = Controlled Clinical Trial

Development for this appraisal form is based on:

1. Cresswell, J. W. & Plano Clark, V. L. (2007). Designing and Conducting Mixed Methods Research. Thousand Oaks, CA: SAGE.
2. Creswell, J., and Tashakkori, A.: Developing Publishable Mixed Methods Manuscripts. Journal of Mixed Methods Research, 1(2): 107-111, 2007.
3. Denzen, N. & Lincoln. Y. (2005). The Sage Handbook of Qualitative Research, Sage Publications: Thousand Oaks, California.
4. Fineout-Overholt and Johnston: Teaching EBP: asking searchable, answerable clinical questions. Worldviews Evid Based Nurs, 2(3): 157-60, 2005.
5. Freshwater, D. (2004). Deconstructing Evidence Based Practice, Routledge: New York: New York.
6. Guba, Y. & Lincoln, E. (1989). Fourth Generation Evaluation, Sage Publications: Newbury Park, California.
7. Guyatt, G.; Rennie, D.; Evidence-Based Medicine Working Group.; and American Medical Association.: Users' guides to the medical literature : a manual for evidence-based clinical practice. Users' guides to the medical literature : a manual for evidence-based clinical practice: "JAMA & archives journals." Chicago, IL, 2002
8. Leininger, M (1991). Culture care diversity and universality: A theory of Nursing, National League for Nursing Press: New York
9. Leininger, M. & McFarland, M. (2006). 2nd Ed. Culture care diversity and universality: A worldwide nursing theory. Jones & Bartlett Publishers: Sudbury, Mass.
10. Lincoln, Y. & Guba, E. (1985). Naturalistic Inquiry, Sage Publications: Newbury Park, California.
11. Lowe, J.: Clear as mud: results and the use of mixed methods. Australian & New Zealand Journal of Public Health, 34(4): 344-5, 2010.
12. Morse, J., Swanson, J., & Kuzal, A. (2001). The Nature of Qualitative Evidence, Sage Publications: Thousand Oaks, California.
13. Morse, J. M. & Niehaus, L. (2009). Mixed Method Design: Principles and Procedures. Walnut Creek, CA: Left Coast Press Inc.
14. Palinkas, L. A.; Aarons, G. A.; Horwitz, S.; Chamberlain, P.; Hurlburt, M.; and Landsverk, J.: Mixed method designs in implementation research. Administration & Policy in Mental Health, 38(1): 44-53, 2011.
15. Phillips, et al: Oxford Centre for Evidence-based Medicine Levels of Evidence, 2001. Last accessed Nov 14, 2007 from <http://www.cebm.net/index.aspx?o=1025>.