




“Demystifying Critical Appraisal”

Presenters: Karen L. Gordes, PhD, PT, DSc and Joshua Anderson, MS, PA-C

	<p>Evidence based practice consists of the intersection of three dimensions, the best available evidence from primary research, the judgement of the clinician and the patient’s values and circumstances. In order to engage in evidence-based practice one must be able to critically appraise research to determine its value in the current context in which the evidence would be applied to practice.</p>
	<p>Critical appraisal is a systematic process: search for and select pertinent evidence, evaluate if the identified evidence is trustworthy, determine if the evidence has clinical relevance, apply applicable evidence and evaluate impact of implementation.</p>
 <p>PICO Elements by Question Domain https://canberra.libguides.com/c.php?g=599346&p=4149722#s-lg-box-12888073</p>	<p>Formulating research questions</p>



PubMed Tutorial

<https://www.youtube.com/watch?v=yWy0ssLC-ME&list=PL06653C15655F624C&index=4>



Boolean Operators Tutorial

<https://www.youtube.com/watch?v=zvpXOQ2HIB0>

CINAHL

- <https://www.ebsco.com/products/research-databases/cinahl-complete>

EMBASE

- <https://www.embase.com/>

Pubmed

- <https://pubmed.ncbi.nlm.nih.gov/>

Searching for evidence

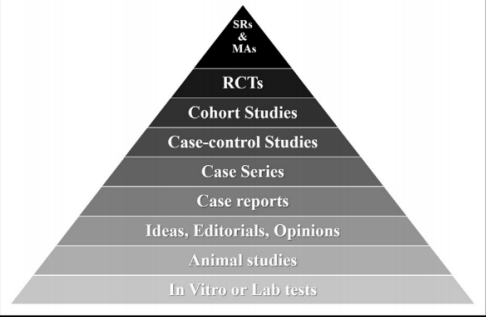
Search Terms - Boolean Operators

Parameters

Retrieval Resources

Selecting evidence



 <p>https://pubmed.ncbi.nlm.nih.gov/28651753/ Mulimani P. S. (2017). Evidence-based practice and the evidence pyramid: A 21st century orthodontic odyssey. <i>American journal of orthodontics and dentofacial orthopedics : official publication of the American Association of Orthodontists, its constituent societies, and the American Board of Orthodontics</i>, 152(1), 1–8. https://doi.org/10.1016/j.ajodo.2017.03.020</p>	<p>Levels of evidence</p>
<p style="text-align: center;">Critical Appraisal Tools</p> <p>AMSTAR https://amstar.ca/Amstar_Checklist.php</p> <p>Critical Appraisal Skills Program: CASP (Critical Appraisal Checklists) https://casp-uk.net/casp-tools-checklists/</p> <p>Center for Evidence-Based Medicine: CEBM Critical Appraisal Worksheets https://ebm-tools.knowledgetranslation.net/worksheet</p> <p>COREQ (Consolidated criteria for Reporting Qualitative Research) http://cdn.elsevier.com/promis_misc/ISSM_COREQ_Checklist.pdf</p> <p>JBI Critical Appraisal Tools https://jbi.global/critical-appraisal-tools</p> <p>University of South Australia Critical Appraisal Tools https://www.unisa.edu.au/research/Health-Research/Research/Allied-Health-Evidence/Resources/CAT/</p> <p>Lincoln and Guba’s Qualitative Assessment http://www.qualres.org/HomeLinc-3684.html</p>	<p>Critical Appraisal Tools No gold standard Based on research design</p>
<p style="text-align: center;">Critical Appraisal 3 components</p> <ul style="list-style-type: none"> • Internal Validity (study design appropriate, methodology addresses bias, statistical analysis appropriate, data justifies conclusions) • Impact (statistical and clinical significance) • External Validity (applicability to patient/population) 	