Wk	Lecture: Using scientific research and evidence
12 **Mar 26** **To** **Mar 31**	**Scientific research** provides a systematic and rigorous way of gathering and analyzing information about the world around us. Researchers use scientific methods to test hypotheses and theories, generate new knowledge, and provide evidence to support or refute claims. **Evidence-based practice** (EBP) is the idea of using scientific evidence to inform occupational practices, re-engineering, quality improvement, and similar. It's controversial, as scientific evidence can require scientific training and other forms of specialization. Outcomes, albeit similar, may need to represent the current environment in question adequately. 1. Scientific research can inform decision-making by assessing the use of interventions, treatments, and policies shown to be effective through rigorous testing. Evidence-based practice involves the best available evidence to guide decision-making rather than relying solely on personal experience, intuition, or tradition. 2. The higher-level principle is to countermand a culture of "Beaver knows best," a.k.a. we can fix it or figure it out ourselves. 3. The movement towards EBP is to encourage or even require professionals and other decision-makers to pay more attention to evidence to inform their decision-making. The goal is to eliminate unsound and outdated practices in favor of more-effective ones by shifting the basis for decision-making from tradition, intuition, and unsystematic experience to firmly grounded scientific research.[2] 4. To use scientific research for evidence-based practice, selecting relevant, valid, and reliable studies is essential to critically evaluating the methods and results of studies to determine their quality and relevance to the question at hand. Researchers may also conduct meta-analyses or systematic reviews, which involve pooling data from multiple studies to provide a more comprehensive view of the evidence. 5. Using evidence-based research can help improve the quality of arguments and persuasive communication by providing new facts and information grounded in rigorous scientific methods. Its goal is to ensure decision-making is based on the best available evidence. **References:** 1. EBP, retreived from https://en.wikipedia.org/wiki/Evidence-based_practice 2. Leach, M. J. (2006). "Evidence-based practice: A framework for clinical practice and research design". International Journal of Nursing Practice. 12 (5): 248–251. doi:10.1111/j.1440-172X.2006.00587.x. ISSN 1440-172X. PMID 16942511. S2CID 37311515.