

Introduction to Evidence-Based Practice

Introduction to Evidence-Based Practice (EBP)

1. What Is Evidence-Based Practice?

Aspect	Definition
Core Idea	Integration of the best available research evidence with clinical expertise and patient values to make informed decisions.
Origin	Developed in medicine (1970s) ? now used in nursing, allied health, education, social work, business, public policy, etc.
Goal	Improve outcomes, increase efficiency, and ensure accountability in professional practice.

2. The Three Pillars of EBP

Pillar	Description	Example
Best Research Evidence	Systematically gathered, critically appraised data from high-quality studies (RCTs, systematic reviews, meta-analyses).	A Cochrane review showing that hand-hygiene reduces hospital-acquired infections.
Clinical Expertise	Practitioner's accumulated knowledge, skills, and judgment acquired through experience.	A physical therapist recognizing subtle cues that a patient is over-exerting during gait training.
Patient/Client Values & Preferences	Individual's unique circumstances, cultural background, goals, and concerns.	A diabetic patient preferring oral medication over insulin injections after discussing risks/benefits.

3. The EBP Process (5-Step Model)

1. Ask a Focused Clinical Question

- Use the **PICO** format:
 - **Patient/Problem**

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- Intervention
- Comparison (optional)
- Outcome
- *Example:* In adults with chronic low?back pain (P), does yoga (I) compared with standard physiotherapy (C) improve functional mobility (O)?

2. Acquire the Best Evidence

- Search databases: PubMed, CINAHL, Cochrane Library, PsycINFO, Scopus, etc.
- Use keywords, Boolean operators, filters (date, study type).
- Retrieve systematic reviews first; if none, look for high?quality primary studies.

3. Appraise the Evidence

- Assess validity, reliability, and relevance.
- Tools: **CASP**, **GRADE**, **JADAD Scale**, **PEDro** (for physiotherapy).
- Questions to ask:
 - Was the study design appropriate?
 - Were participants comparable?
 - Were outcomes measured objectively?
 - Is the magnitude of effect clinically meaningful?

4. Apply the Evidence

- Combine appraisal results with clinical expertise and patient preferences.
- Consider feasibility, resources, and organizational policies.
- Develop or modify a care plan, document rationale.

5. Evaluate the Outcome & Process

- Monitor patient response (clinical indicators, satisfaction).
- Reflect on the EBP cycle: What worked? What barriers existed?
- Use findings to inform future practice and possibly contribute to the evidence base.

4. Levels of Evidence (Hierarchy)

Level	Study Design	Typical Strength
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I	Systematic review/meta-analysis of RCTs	Highest
II	One or more high-quality RCTs	Very strong
III	Controlled trials without randomization (quasi-experimental)	Moderate
IV	Case-control or cohort studies	Limited
V	Systematic reviews of qualitative studies or expert opinion	Lowest

(Some models add Level VI for single descriptive or qualitative studies.)

5. Common