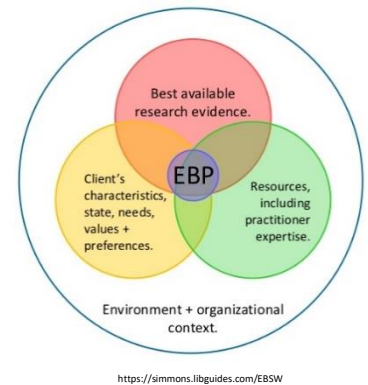


Learning Objective 1: Understand the concept of evidence-based practice (EBP)

What is evidence-based practice (EBP)?

- “A problem-based approach where research evidence is used to inform clinical decision-making”
- EBP involves the integration of:
 - The best research evidences
 - Clinical expertise and
 - The patients’ unique values and circumstances
- Using the **best available evidence** to make the **best decisions** for their patients
- Purpose is to aid clinical decision making



EBP alternatives

Health-care professionals rely on:

1. **Experience** → subject to bias. What happens when the person has limited experience?
2. **Local practice** → influenced by factors not related to patient care such as budget. Local practice is not transferable
3. **Preferences of senior or influential colleagues** → underpinning knowledge may be out of date

Evidence is used in nursing for:

- Clinical practice guidelines
- Policies and procedures
- Clinical practice recommendations

Learning Objective 2: Understand why research is important to clinical practice

Importance of EBP

- Ensures we provide the most effective care that is available with the aim of improving patient outcomes
- Nursing research uses the research process as a tool to search for, develop, refine and expand a body of knowledge that shapes and benefits nursing practice
- Evidence is referred to when decisions are made about funding health services
- EBP **promotes attitudes of inquiry** and gets clinicians thinking about:
 - Why am I doing this in this way?
 - Is there a better way?
 - Surely someone else has experienced this problem, if so what did they do?
- Promotes best practice
- Improves patient outcomes
- Improves satisfaction with care (happier about job when you're doing a good job)

Benefits for clients/patient's

- Involve the patient in decision making
- Care is informed by latest research
- Improve care and health outcomes for the patients as high standards of care are being delivered
- Improved patient health literacy
- Patient knows that their clinicians are using best practice

Facilitates professional accountability:

National Competency Standards for the Registered Nurse (NMBA)

- 3.1 → identifies the relevance of research to improving individual/group health outcomes
- 3.2 → uses best available evidence, nursing expertise and respect for the values and beliefs of individuals/groups in the provision of nursing care
- 3.3 → Demonstrates analytical skills in accessing and evaluating health information and research evidence
- 3.4 → Supports and contributes to nursing and health care research
- 3.5 → participates in quality improvement activities

Learning Objective 3: Define and briefly describe the major characteristics of positivist and constructivist paradigms

Paradigm

- **World view; a set of beliefs about the way things are**
- Foundational theoretical and philosophical knowledge
- A position or understanding of a view point of the world in which we live (world view)
- Evidence is broadly divided into two paradigms → positivist and constructivist

| POSITIVIST <i>Orderly reality that can be objectively studies. Positive: See the wold in black and white; one universal truth; right/wrong, true/untrue</i> | CONSTRUCTIVIST <i>Construct the world from multiple complex experiences and realities</i> |
|--|--|
| Reality can be measured or quantified | Reality is based on human responses, behaviours and experiences within society |
| Objective and measurable (empirical) | Subjective (feelings, thoughts, opinions and interpretations) |
| Predominantly Quantitative | Predominantly Qualitative |
| Collect order and analyse data in numerical form using descriptive and inferential stats | Collect, order and analyse data in descriptive terms |
| Research to understand cause and effect | Research to understand experiences |
| Example: studying subjects response to painful stimuli by measuring BP, HR and serum cortisol | Example: interviewing patients about their experiences of pain and their strategies to manage the pain |
| Similarities | |
| <ul style="list-style-type: none"> • Goal is to answer and questions and solve problems • Evidence is gathered and analysed empirically | <ul style="list-style-type: none"> • Rely on human cooperation • Ethical considerations • No perfect method → both have limitations |

Learning Objective 4: Discuss the different forms of knowledge acquisition in health care practice

What else influences practice?

“Sacred Cows”

PAT IHP

→ an idea, custom, or institution held to be above criticism

- **P**ersonal **A**gendas
- **T**rial and error

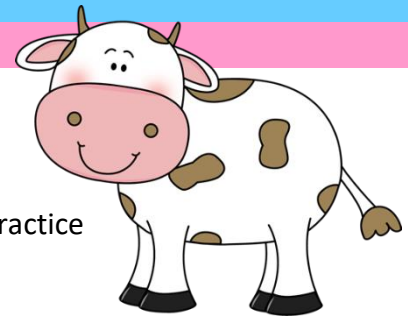
- **H**istorical **P**ractice
- **I**ntuition

→ “this is how we have always done it here”

- Conceptual/theoretical knowledge
- Professional experience
- Thoughtfulness and compassion
- Patients’ needs and values
 - Culture
 - Religion
 - Family dynamics

Evidence has to be evaluated considering these factors

- Diagnosis
- Patient Competence

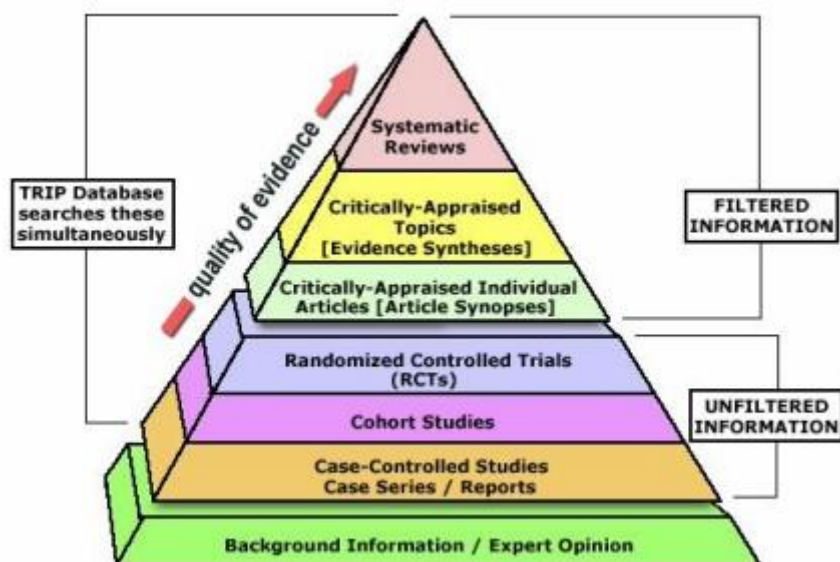


Research is the systemic inquiry or examination of data reports and observations in search of facts or principles. It offers a systematic way to understand the world, to confirm existing knowledge and to develop new knowledge.

Nursing research is a systematic inquiry undertaken to develop evidence on problems of importance to nurses.

Learning Objective 5: Introduce the concept of hierarchy of evidence

- There are guidelines to help in the development, implementation and evaluation of clinical practice
- The National Health and Medical Research Council (NHMRC) and Joanna Briggs Institute (JBI) are Australian



| NHMRC hierarchy | |
|-------------------|---|
| Level of evidence | Study design |
| I | Systematic review of all level II studies (randomised controlled trials) |
| II | Randomised controlled trials (RCT) |
| III-1 | Pseudo-randomised controlled trials (alternative allocation or some other method) |
| III-2 | A comparative study with concurrent controls (including systematic reviews of such studies) <ul style="list-style-type: none"> • Non-randomised experimental trials • Cohort studies • Case-controlled studies • Interrupted time series with a control group |
| III-3 | A comparative study <i>without</i> concurrent controls <ul style="list-style-type: none"> • Historical control • Two or more single arm studies • Interrupted time series without a parallel control group |
| IV | Case studies with either post-test or pre-test/post-tests outcomes |

| Joanna Briggs Institute Hierarchy | |
|-----------------------------------|--|
| Level of evidence | Study design |
| 1 | Experimental designs <ul style="list-style-type: none"> a. Systematic review (SR) of RCT's b. SR of RCTs and other study designs c. RCT d. Pseudo RCT's |
| 2 | Quasi-experimental designs <ul style="list-style-type: none"> a. SR of quasi-experimental studies b. SR of quasi-experimental studies and other lower study designs c. Quasi-experimental prospectively controlled study d. Pre-test – post-test or historic/retrospective group study |
| 3 | Observational – analytic designs <ul style="list-style-type: none"> a. SR of comparable cohort studies b. SR of comparable cohort studies and other lower study designs c. Cohort study with control group d. Case-controlled study e. Observational study without control group |
| 4 | Observational – descriptive studies <ul style="list-style-type: none"> a. SR of descriptive studies b. Cross sectional study c. Case series d. Case study |
| 5 | Expert opinion and bench research <ul style="list-style-type: none"> a. SR of expert pinion b. Expert consensus c. Bench research/single expert opinion |

Process of ECP

1. Convert your information needs into an answerable clinical question
2. Find the best available evidence to answer your clinical question
3. Critically appraise the evidence for its validity, impact and applicability
4. Integrate the evidence with clinical expertise, the patient's values and circumstances and information from the practice context
5. Evaluate the effectiveness and efficiency with which steps 1-4 were carried out and think about ways to improve your performance of them next time

The five A's

- ASK a question
- ACCESS the info
- APPRAISE the info
- APPLY the info
- AUDIT

