Nursing Research

By: Omar AL-Rawajfah, RN, PhD
What Is Nursing Research?

- **Research**: diligent, systematic inquiry that used disciplined method to answer question or solve problem
- **Nursing Research**: issues related to the profession of nursing, nursing education, administration, practice & informatics
Examples of nursing research

- **Practice**
  - A comparison of patients' and nurses' assessments of pain intensity in patients with coronary artery disease

- **Education**
  - Nursing students attitudes toward nursing research course

- **Administration**
  - Nurse Staffing and Patient Mortality in Intensive Care Units

- **Professional**
  - Creating a Healthy Workplace for New-Generation Nurses

- **Informatics**
  - Use of computerized nursing documentation system
Importance of Nursing Research

- Evidence-based practice
- Document the social relevance
- Understand the different dimensions of the profession of nursing
Level of Nurses in the Research Process

- Evaluator of nursing research
- Producer of nursing research
- Utilization of nursing research
- Consumer of nursing research
The word “nurse” originates from the Latin word “Nutricius” which means something that nourishes, fosters and protects.

NURSING AS AN ART means that the nurse must develop skilled techniques in the performance of the various procedures required for giving adequate care to the patient.

NURSING AS A SCIENCE means that the underlying principles of nursing care depend on knowledge of biological sciences such as anatomy, physiology, microbiology and chemistry.

NURSING AS A SPIRITUAL QUALITY means that the primary aim is to serve humanity, not only by giving curative care to the bodies of the sick and injured, but by serving the needs of the mind and the spirit as well”. (Alice L. Price)
Historical Background

- In 1859, Miss Nightingale published her first classical book titled “Notes On Nursing: What It Is, And What It Is Not”

- Nightingale to 1950s
  - 1900 American Journal of Nursing
  - Research on nursing education
  - The Journal of Nursing Research 1952

- Research in 1960s
  - More concern about lack of research in practice
  - The International Journal of Nursing Studies
Historical Background

- Research in 1970s
  - More Journal in Nursing
  - More concern about practice research
  - Research on psychological and sociological backgrounds
- Research in 1980s
  - Evidence-Based Medicine
  - Increased of research utilization
  - Set priorities for nursing research
  - Specialized institutions in nursing research started e.g., NCNR at the NIH
Historical Background

- **Research in 1990s - Present**
  - National Institute of Nursing Research
  - 2010 budget $144 million
  - More research on intervention
  - More collaboration with other health care disciplines
  - More randomized clinical trials
  - More publication on other health care-related journals
Future Direction of Nursing Research

- Outcome research: effectiveness of healthcare services
- Increased focus on biophysiologic research
- Promotion of evidence-based practice
- Use confirmatory research
- Multidisciplinary collaborations
- Expand dissemination of research findings
- Increase the visibility of nursing research
Sources of Nursing Knowledge

- Tradition
- Authorities
- Personal Experience
- Trial and Error
- Logical Reasoning:
  - Inductive reasoning
  - Deductive reasoning
- Disciplined Research
Logical Reasoning

• **Inductive reasoning**
  
  • *Part-to-whole*: where the whole is assumed to be like individual parts (only bigger).
  
  • *Extrapolations*: where areas beyond the area of study are assumed to be like the studied area.
  
  • *Predictions*: where the future is assumed to be like the past.
    - Mohammed is Jordanian. (premise)
    - Most Jordanians eat Mansaf. (premise)
    - Mohammed ate Mansaf. (conclusion)

• **Deductive reasoning**
  
  • All infections are associated with fever. Pneumonia is infection. Therefore pneumonia is associated with infection.
  
  • All chemists are smart, since chemists are scientists and all scientists are **smart**.
Qualitative vs. Quantitative Research
<table>
<thead>
<tr>
<th></th>
<th>Quantitative Mode</th>
<th>Qualitative Mode</th>
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</thead>
<tbody>
<tr>
<td><strong>Assumptions</strong></td>
<td>• Objectivity of reality</td>
<td>• Reality is subjective</td>
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<tr>
<td></td>
<td>• Variables can be identified and relationships measured</td>
<td>• Variables are complex, interwoven, and difficult to measure</td>
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<tr>
<td></td>
<td>• Etic (outside's point of view)</td>
<td>• Emic (insider's point of view)</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>• Generalizability</td>
<td>• Contextualization</td>
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<td></td>
<td>• Prediction</td>
<td>• Interpretation</td>
</tr>
<tr>
<td></td>
<td>• Causal explanations</td>
<td>• Understanding actors' perspectives</td>
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<tr>
<td><strong>Approach</strong></td>
<td>• Begins with hypotheses and theories</td>
<td>• Ends with hypotheses and grounded theory</td>
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<td></td>
<td>• Manipulation and control</td>
<td>• Emergence and portrayal</td>
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<td></td>
<td>• Uses formal instruments</td>
<td>• Researcher as instrument</td>
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<tr>
<td></td>
<td>• Experimentation</td>
<td>• Naturalistic</td>
</tr>
<tr>
<td></td>
<td>• Deductive</td>
<td>• Inductive</td>
</tr>
<tr>
<td></td>
<td>• Component analysis</td>
<td>• Searches for patterns</td>
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<tr>
<td></td>
<td>• Reduces data to numerical indices</td>
<td>• Makes minor use of numerical indices</td>
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<tr>
<td><strong>Researcher Role</strong></td>
<td>• Detachment</td>
<td>• Personal involvement</td>
</tr>
<tr>
<td></td>
<td>• Objective</td>
<td>• Empathic understanding</td>
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- E$_{\text{m}}$c$_{\text{ins}}$(i$^{\text{erp}}$'s $^{\text{pot}}$f$^{\text{ew}}$)
Basic vs. Applied Nursing Research

- **Basic Research** (fundamental or pure research)
  - Primary objective the advancement of knowledge
  - It is conducted without any practical end in mind
  - Theoretical understanding of the relations among variables

- **Applied Nursing Research**:  
  - Primary goal is finding solution of immediate problems
  - Findings can be used to generate basic research questions
<table>
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<tr>
<th>PURPOSE</th>
<th>TYPES OF QUESTIONS: QUANTITATIVE RESEARCH</th>
<th>TYPES OF QUESTIONS: QUALITATIVE RESEARCH</th>
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<tbody>
<tr>
<td>Identification</td>
<td>How prevalent is the phenomenon? How often does the phenomenon occur? What are the characteristics of the phenomenon?</td>
<td>What is this phenomenon? What is its name?</td>
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<tr>
<td>Description</td>
<td>What are the dimensions of the phenomenon? What variations exist? What is important about the phenomenon?</td>
<td>What is the full nature of the phenomenon? What is really going on here? What is the process by which the phenomenon evolves or is experienced?</td>
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<tr>
<td>Exploration</td>
<td>What factors are related to the phenomenon? What are the antecedents of the phenomenon?</td>
<td>How does the phenomenon work? Why does the phenomenon exist? What is the meaning of the phenomenon? How did the phenomenon occur?</td>
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<tr>
<td>Explanation</td>
<td>What are the measurable associations between phenomena? What factors cause the phenomenon? Does the theory explain the phenomenon?</td>
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<td>Prediction</td>
<td>What will happen if we alter a phenomenon or introduce an intervention? If phenomenon X occurs, will phenomenon Y follow?</td>
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<td>Control</td>
<td>How can we make the phenomenon happen or alter its nature or prevalence? Can the occurrence of the phenomenon be prevented or controlled?</td>
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Questions and Answers