Institute for Nursing

Nursing Diagnosis Based Education: Curriculum Development and Clinical Reasoning

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Presentation

• Purpose
• Methods / Project
• Results: Nursing Diagnosis based Curriculum, content, linkages, fostering clinical reasoning / critical thinking: Method GCR
• Evaluation
• Discussion
Purpose

Bachelor of Science in Nursing: New regulation

Key competencies:
• accountability nursing process
• critical thinking
• assessing patients’ care needs

• performing high quality interventions
• evaluating the care in multidisciplinary teams


Aim and Methods

Aim: State of the art curriculum
• State led, conceptual project
• One year – external consultant
• Project group – nursing scientist, curriculum developer
• Evidence-based: Studies - diagnoses, interventions & nurs.-sens. patient outcomes
• Visibility of nurses’ contribution to patients’ health
Methods
Constructivist learning theories
Students: Active, knowledge-seeking, - constructing

Multi-step project approach
• including nurse scientists, educators/faculty staff
• health and education regulators
• clinical nurses and administrators
• linking nursing science and health politics

Results: Curriculum
Constructivist learning theories: Student as active, knowledge-seeking & constructing learners
Nursing process as critical thinking process(es)
Nurses' as competent decision makers, clinical judgment
Teaching methods:
• Problem-based learning: Real patient cases, students as problem-solvers
• Seminar work (problem-solving, group assignments)
Teaching methods

- Case studies (courses, practice assignments, written nursing processes, care plans, evaluations)
- Transfer projects
- Individual and group reflection sessions
- Journal writing, creative methods (role-plays, drawings, painting, collages)

All modules are connected, internally linked, logically followed by next course
Curriculum Domain

Nursing & Nursing Science
- Nursing Process
- NANDA-I, NIC & NOC
- Nursing process, critical thinking; clinical decision making
- Physiology/Pathophysiology
- Research transfer into practice

Communication/Counselling
- Aggression prevention and management
- Family and systems counseling
- Risk management

General topics
- e.g. Mathematics, English, Statistics, Biology

Health Care System
- Disease / Case Management
- Project management
- Health competencies/ Patient education
- Health and migration

Leadership
- Nursing interventions
- Clinical Assessment
- Clinical Assessment

Practice/Skills lab
- Proposal
- Bachelor Thesis

Nursing Diagnoses, interventions & outcomes

1. Semester
- Risk for impaired Skin Integrity
- Impaired Skin Integrity
- Impaired Mobility
- Risk for Falls

2. Semester
- Disturbed Sleep Pattern
- Impaired Peripherale Tissue Perfusion
- Impaired Cardiac Tissue Perfusion
- Ineffective Coping

3. Semester
- Ineffective Breathing Pattern
- Acute Pain
- Chronic Pain
- Disturbed Thinking Processes
- Anxiety
Nursing Diagnoses, interventions & outcomes

4. Semester
• Hopelessness
• Powerlessness

Focus on evidence-based interventions and research

5. Semester
• Risk for Relocation Stress Syndrome
• Impaired Swallowing
• Chronic Confusion
• Imbalanced Nutrition
• Deficient Fluid Volume
• Incontinence

6. Semester
• Impaired Environmental Interpretation Syndrome
• Impaired Verbal Communication

Focus on research transfer into practice
Why foster Critical Thinking (CT) ?

• Clinical practice requires complex thinking processes

• Critical thinking is an intellectual, disciplined process of
  - active conceptualisation
  - application and
  - synthesis of information

• CT is gained through observation, experience, reflection and communication and leads thinking and action
  (Paul, 1993; Lunney, 2011)

Why foster CT?

Critical thinking influences all aspects of clinical decision making:

a) diagnostic judgement
b) therapeutic reasoning
c) ethical decision making
  (Gordon, 2004, 2008)

Human reactions are complex processes

Human behavior is interpreted in the focus of health
Problems

- Clinical decision making/critical thinking underestimated in school settings
- Nurses’ educational needs
  - in clinical decision making/critical thinking
  - in use/application of nursing classifications

(Delaney, Herr, Maas, & Specht, 2000; Ehrenberg & Ehnfors, 1999; Müller Staub, 2007; Rivera & Parris, 2002; Paans 2011)

Nursing process - interrelated, forming a continuous circle of thought and action that is dynamic and cyclic.
Method: Guided Clinical Reasoning

Aim
Fostering nurses clinical decision making and critical thinking skills

To accurately
- assess patients’ needs
- choose nursing diagnoses,
- interventions,
- and outcomes based on NNN
Guided Clinical Reasoning (GCR)

**Method**
Interactive, iterative hypothesis testing using actual patients’ situations

**Guided Clinical Reasoning Sessions**

- Pre-phase
- Case selection phase
- Case delineation
- Case work
- Case evaluation
(Müller-Staub, 2008, 2010)
Case work: Several group loops of reflection/hypothesis seeking (iterative), NO discussion, solely *Questioning and REFLECTION*

Case evaluation
- validating nursing diagnoses (PES)
- choosing nursing interventions
- stating and evaluating nursing outcomes

Definition of diagnostic process —

A process of analyzing patient information using diagnostic reasoning in which judgments, decisions, and conclusions are made about the meaning of the information collected to determine patients care needs, and whether nursing interventions are indicated.

The assessment process is generally a circular activity to:

• collect data
• analyze the data
• detect gaps and inconsistencies in the data
• re-collect more (or new) data
• close gaps
• explain inconsistencies
Cluster information—

- Information gathering:
  interview, physical examination, other sources and recorded in a systematic way and grouped into similar categories

- An evidence-based nursing assessment linking to nursing diagnoses is a helpful tool e.g. Functional Health Patterns, or the domains of the NANDA-I, or NNN

Identifying cues—

- A cue is a unit of data, e.g. respiratory rate 36/minute that influences decisions to choose a nursing diagnosis

- Cues point to changes, strengths, risk states, and readiness for health promotion

- Cues may indicate developmental delays or deviations from health norms
Analyzing assessment information—

• Organize data
• Identify cues
• Validate data interpretations
  → verify findings
  → compare interviews with physical exam
  → clarify ambiguous statements
  → double check abnormal findings
  → check contradicting findings  (Lunney, 2009)

Suggest explanations or hypotheses based on analysis of findings—

• Make inferences focusing on strengths and possible problems, risk states, and readiness for health promotion

Ask—

• Does an experience/human response exist for which nursing interventions are needed?
• What is the patient’s readiness for health promotion?
• Does the patient agree with findings and diagnoses?
Validate diagnostic hypotheses—

Ask—

• How relates information to standards?
• How do you identify gaps and inconsistencies?
• What alternative explanations for findings do you consider?
• What additional information collection is indicated?

Actual or Problem Nursing Diagnoses (PES-Format) are composed of

• Nursing Diagnosis Label and Problem Definition $\Rightarrow$ defining the problem
• Related Factors $\Rightarrow$ etiologies or causes of the problem
• Defining Characteristics $\Rightarrow$ signs and symptoms of the problem

Ask— does definition match patients situation? Accuracy? PES correct? Priorities?
(Müller-Staub, 2007, 2012; Paans, 2011)
Insufficient critical thinking – clinical decision making errors:

- Insufficient data collection
- Misinterpretation of collected data
- Misinterpretation of cues based on lack of knowledge about diagnostic concepts
- Not stating several hypotheses, not testing or validating the hypotheses
- Diagnosis not validated by re-assessment and/or by reviewing with the patient

Evaluation: Nursing process & nursing diagnoses – “Curriculum skeleton”

- Positive effects on students’ competencies, highly significant results (Müller-Staub, 2008,2010; Paans, 2010)
- Effectiveness: Clinical decision making & accuracy of diagnoses
- Continuing reflection and linkages of learning / teaching content
- Patient-centered care
• Collaboration with nursing practice: Patient cases and problems solved
• Permanent reflection
• Nurses contribution to health
• Visibility of nursing
• NNN = Knowledge base

Guided Clinical Reasoning: Valid method, using PES !!!