CONCEPT-BASED CURRICULUM: STRUCTURE AND PROCESS

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WHAT DO YOU WANT TO LEARN??

Need to Transform Nursing Curriculum Why?
- Increased complexity of care
- Increased accountability for ensuring safe, high quality care
- Same amount of time to teach students to achieve different outcomes
National Trends in Pre-licensure Nursing Curricula

- Simple (basic, foundational) to complex (multi-system, higher CT) leveling on nursing curricular content
- Integrating IOM/QSEN competencies and associated KSAs where appropriate
- Using a concept-based curriculum/conceptual approach to teaching/learning

Why IOM/QSEN?

- Based on IOM research (2003)
- Evidence-based findings specific for nursing practice (2006)
- Competencies mirror those of clinical health care settings

QSEN Core Competencies/Curricular Constructs or Themes

- Patient-centered care
- Teamwork and collaboration
- Evidence-based practice
- Informatics
- Quality improvement
- Safety
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National Trends in Pre-licensure Nursing Curricula

- National League for Nursing (NLN) Differentiated Competencies of New Graduates (www.nln.org)
- AACN Essentials of Baccalaureate Nursing Education

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Traditional Nursing Curriculum Design in Pre-licensure Programs

- Start with “Gen Ed” liberal arts and science courses as pre-requisites or co-requisites (Body Systems in A & P)
- First major clinical nursing course focuses on nursing concepts (e.g., Fundamentals, Foundations).

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Examples of Nursing Concepts in Fundamentals Course (Human Needs)

- Comfort (pain)
- Mobility
- Nutrition
- Elimination
- Oxygenation
- Sexuality
Traditional Nursing Curriculum Design in Pre-licensure Programs

- Then begin “disease-y” courses, starting with adult health or chronic diseases possibly across the lifespan
- End program with capstone/clinical immersion experience and leadership/management concepts

Students have problems transitioning from framework to framework and nursing concepts often not emphasized in later courses!

The Concept-Based Curriculum (CBC): Process for Structural Development

Purposes of the CBC
- To emphasize nursing care rather than medical care and make connections in care for students
- To prevent student from shifting from various frameworks
- To decrease content saturation!!!

History Regarding CBC

- 1960s and 70s: Nursing theorist concepts/constructs used as basis for curriculum
- 1980s: Beginning of true conceptual curricula in some BSN programs (textbook in med-surg to support) (Outcome: NCLEX pass rates dropped)
The Concept-Based Curriculum (CBC): Conceptual Learning

- Concepts form the organizational framework and structure of the curriculum (Erickson, 2002).
- Students develop high level critical thinking skills as they form conceptual linkages.
- Learning is student-centered and active! 


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The Concept-Based Curriculum (CBC): Conceptual Learning

- 2004: New model for CBC started at University of New Mexico (Dr. Jean Giddens as champion) (Outcome in first few years: NCLEX pass rates dropped)
- 2006-2014: Statewide Curriculum Improvement Project (CIP) started in NC for all AD in Nursing programs in 2006; more states following similar model (e.g., HI, MD, TX, WY, NM)
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**Developing a Concept-Based Curriculum**

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**Program Learning Outcomes (Lourdes University)**

<table>
<thead>
<tr>
<th>Various Categories</th>
<th>Specific Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Centered Care</td>
<td>Provide nursing care that recognizes the patient as a full partner and source of control.</td>
</tr>
<tr>
<td>Safety</td>
<td>Through individual performance and organizational processes, provide care to patients that minimizes risk of harm to patient, others and self.</td>
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<tr>
<td>Collaboration</td>
<td>Participate fully in the health care team in such a way that fosters mutual respect and shared decision making.</td>
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<tr>
<td>Evidence Based Care</td>
<td>Provide nursing care that is based on current evidence, clinical expertise and patient preference, needs and values.</td>
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<tr>
<td>Quality Improvement</td>
<td>Participate fully in processes to monitor outcomes and improve patient care.</td>
</tr>
<tr>
<td>Informatics</td>
<td>Use current technology to manage patient information and other data to maximize safety and optimize health outcomes.</td>
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<tr>
<td>Values Based Care</td>
<td>Provide nursing care grounded in the Christian ethic and portraying the core nursing values of accountability, caring, communication, clinical reasoning, critical thinking, and lifelong learning.</td>
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<tr>
<td>Leadership</td>
<td>Provides nursing care while modeling the professional roles of coordinator of care, educator, advocate, and leader.</td>
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<tr>
<td>Populations</td>
<td>Provides nursing care recognizing the populations and groups are patients with unique needs and requiring the services of educated nurses.</td>
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<tr>
<td>Culture</td>
<td>Provides nursing care with an understanding of and appreciation for the diverse backgrounds, values and beliefs of each individual and group.</td>
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</tbody>
</table>

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**Typical “Pure” CBC Characteristics**

- Between 40-60+ pre-determined concepts organize the curriculum; grouped by themes (e.g., health and illness concepts, professional nursing and health care, and patient profile concepts).

Typical "Pure" CBC Characteristics

- Courses use lifespan approach
- Courses divided by themes (Health and Illness I, II, etc.; Professional Nursing I, II, etc.) (See KU plan)
- Only selected exemplars are taught!

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Concept Definitions to Guide Course Content (LU)

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Care Needs</td>
<td>Or Health and Illness concepts (alterations)</td>
<td>Physical Metabolism (Gidden's Concepts: Nutrition, Glucose Regulation, &amp; Reproduction)</td>
<td>The body's mechanism of regulating energy for growth, functioning and well being. Includes nutrition and endocrine and reproduction.</td>
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<tr>
<td></td>
<td></td>
<td>Perfusion (Gidden's Concept: Perfusion)</td>
<td>Circulation of blood through tissues and organs issues ranging from clotting to hemorrhaging.</td>
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<tr>
<td></td>
<td></td>
<td>Oxygenation (Gidden's Concept: Gas Exchange)</td>
<td>Intake and utilization of oxygen in tissues and organs ranging from asphyxia to hyperventilation.</td>
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<tr>
<td></td>
<td></td>
<td>Comfort (Gidden's Concept: Pain)</td>
<td>The state of ease; minimization of barriers to functioning and well being, such as pain, nausea, fear, etc.</td>
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<tr>
<td></td>
<td></td>
<td>Elimination (Gidden's Concept: Elimination)</td>
<td>Regulation and removal of waste from the body.</td>
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<tr>
<td></td>
<td></td>
<td>Mobility (Gidden's Concept: Mobility, Functional Ability)</td>
<td>The ability of the body to move to promote normal functioning.</td>
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<td></td>
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<td>Rest</td>
<td>Natural suspension of movement to allow restoration of the body.</td>
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<td></td>
<td>Fluid electrolyte balance (Gidden's Concepts: Fluid &amp; Electrolyte Balance, Acid-Base Balance)</td>
<td>Homeostasis of body fluids and electrolytes throughout multiple body systems including the regulation of PH balance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protection/Regulation (Gidden's Concept)</td>
<td>Thermoregulation, Cellular Regulation, Intracranial Regulation, Tissue Integrity, Clotting</td>
<td>Process by which an individual maintains physical integrity.</td>
</tr>
</tbody>
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Clinical Scaffolding

<table>
<thead>
<tr>
<th>Category</th>
<th>Level</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>Functionality, pat, body image, value, self-evaluation</td>
</tr>
<tr>
<td>2</td>
<td>45</td>
<td>Manifestation, acute care, health, illness, community, education</td>
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<tr>
<td>3</td>
<td>60</td>
<td>Health, history, research, policy, advocacy, education, community, practice</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
<td>Physical, emotional, psychological, cultural, spiritual, social, economic, educational, community, practice</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>Diagnosis, regulation, knowledge, structure, reasoning, critical thinking, practice</td>
</tr>
<tr>
<td>6</td>
<td>125</td>
<td>Translation, implementation, evaluation, theory, practice</td>
</tr>
</tbody>
</table>
Objectives:
1. QSEN concepts emphasized: Safety, Patient Centered Care, Informatics, Evidenced Based Practice, Informatics and Collaboration.
2. Students will increase confidence and speed at which obtaining vital signs.
3. Students will develop medication sheets and information related to exemplar diagnoses to assist in evidenced based understanding of patient centered care for patients impacted by gas exchange and perfusion concerns.
4. Students will perform a 60 second situational assessment.
2. Students will bring to clinical preparation on the exemplar medical conditions and medications related to gas exchange and perfusion.

You will need to review pre-clinical paperwork and discuss the conditions and medications that the students reviewed. Especially discuss patient monitoring related to the medications (i.e., checking BP or HR before giving certain medications, or certain lab work). You could do this prior to having them look for charting/patient information related to these conditions. Ideally, this discussion is early in the clinical day to tie in concepts as they see them on the clinical unit.

Daily Clinical Evaluation

Clinical Evaluation

\[\text{Teaching Plans for Clinical Instructor cont..}\]

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CBC Variations

- NO standardization among programs related to curricular structure and process for CBC; no large scale studies.
- May keep block, or specialty, courses.
- Consider your students, faculty, and resources when deciding on approach to use.

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Another approach for CBC (Modified Approach)

Select Major Concepts:
- Start low (10-15).
- Use those concepts that cross courses, such as mobility, oxygenation.
- Introduce them in the clinical course (fundamentals).

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Selection of Concepts

- Compare with other programs and their experiences.**
- Consider the most common concepts that can be used across clinical specialty areas.
- Review literature; e.g.

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**The Concept-Based Curriculum (CBC): Process for Development**

- Select exemplars (examples of health problem prototypes to demonstrate nursing concept and associated care).
- Organize concepts and exemplars throughout curriculum by course.

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**The Concept-Based Curriculum (CBC): Process for Development**

- Examples of major concepts and exemplars
  - Mobility (MS and Nervous System problems)
  - Arthritis (OA, RA, gout)
  - Fracture
  - Stroke
  - Parkinson’s disease
  - Multiple sclerosis
  - Spinal cord injury

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**The Concept-Based Curriculum (CBC): Process for Development**

- Decide on associated/related concepts for each exemplar
  - Examples:
    - RA/OA = related concept is pain
    - Fracture = related concept is perfusion
    - Spinal cord injury = related concepts are sensation and elimination
**The Concept-Based Curriculum (CBC): Process for Development**

<table>
<thead>
<tr>
<th>Mobility</th>
<th>Oxygenation</th>
<th>Sensory</th>
<th>Perception</th>
<th>Immunity</th>
<th>Metabolism</th>
<th>Elimination</th>
<th>Nutrition</th>
<th>Perfusion</th>
<th>Reproduction</th>
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</thead>
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<tr>
<td>NUR 101</td>
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**Avoiding Pitfalls Associated with a CBC**

- Using too many concepts (cumbersome and hard to organize; no standardization) (*solution?*)
- Using too many or not enough exemplars (no standardization) (*solution?*)

**Avoiding Pitfalls Associated with a CBC**

- Teaching the same way as before implementing a CBC! (very common) (*solution?*)
- Evaluating the same way as before CBC (*solution?*)
How a CBC Differs from a Traditional Nursing Curriculum

- Focus on “need to know” exemplars and related concepts; “need to know” means what the student has to know to keep the patient, family, and staff safe!

How a CBC Differs from a Traditional Nursing Curriculum

- Connect concepts in classroom, clinical, and lab/simulation experiences
- Evaluate nursing concepts consistent with NCLEX competencies for safe nursing practice (curricular map)

How a CBC Differs from a Traditional Nursing Curriculum: Focus is on NURSING!!!
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Summary

• Using a CBIC or conceptual approach to teaching/learning allows students to focus on nursing care and safe nursing practice.
• Faculty professional development is needed to learn how to teach and evaluate students in a CBIC.
• Use a variety of teaching/learning strategies to meet the varied needs of students.
• Connect classroom/online, lab/simulation, and clinical experiences by concepts.

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WHAT DID YOU LEARN?

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