Concept-based Curriculum to Transform Nursing Education

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The New Threads - IOM

- Evidence-based practice (EBP)
- Quality Improvement
- Informatics & Interdisciplinary teams
- Patient-centered care
The New Threads - QSEN

- Patient-centered care
- Teamwork and Collaboration
- Evidence-based practice (EBP)
- Quality Improvement
- Safety
- Informatics
Vision of today's student

http://www.youtube.com/watch?v=dGCJ46vyR9o
What is the Issue

- Nursing education is experiencing content saturation

Issues to consider

- Is curriculum meeting needs of student and community?
- Will current curriculum equip students for the future of healthcare?
What is the Issue

Questions to consider

- students prepared as professionals or technicians?
- students prepared to face ethical decisions?
- students learning multicultural and global concepts?
- graduates have necessary knowledge and skills for their jobs?
What is the Issue

- Questions to consider
  - Are faculty working effectively, efficiently, and productively?
  - Are curricula meeting needs of women, minorities, and vulnerable populations?
  - Is content being delivered with outdated methods (lecture, discussion) or with current methods (interactive)?
Emerging Terms

Additive Curriculum

Content Overload

Content Saturation

Curriculum Obesity
How Do We Get Started

- Integration
- Conceptual lens
- Concept
  - Abstract
  - Timeless
  - Universal
- Topics/Facts/Exemplar
Integration

- mental activity that relates new knowledge to prior knowledge & specific facts to deeper, transferable understanding

- do not really integrate curriculum—we integrate thinking
Concept-based Integration

- examines role of concepts, principles, and generalizations in the integration process
Concept-based Models

- create mental bridge between factual knowledge and conceptual understanding so that students integrate their thinking as they relate facts to organizing concepts, link new knowledge to prior knowledge, and achieve deeper levels of understanding

(H. Lynn Erickson, Concept Based Curriculum and Instruction)
Concept-based Curriculum

- traditional curriculum requires students to “cover” topics, memorize facts, and restate them for evaluation purposes.

- concept-based method stresses identifying and thinking through concepts and “big ideas”
**Conceptual Lens**

- focus concept
- forces thinking to the integration level
- Students see patterns and connections at conceptual level as they relate topic to the broader study framed by the lens
Concepts

- Integrate thinking and allow for transfer of knowledge
- Provides relevant focus for content study
- Facilitate transfer of knowledge
- Create brain schema for processing new info
- Abstract, timeless, universal
Exemplar

- topics/facts
- category of study that implies body of related facts to be learned
- study that’s focused on topics
- without conceptual lens, results in memorization and surface understanding rather than integrated thinking and deep understanding
Whole-Part-Whole Learning Model

1. Whole = framework or landscape for learning - ie the concept

2. Part = skills, techniques, processes that result in new learning - ie exemplars (content in class, lab, clinical)

3. 2\textsuperscript{nd} whole = active learning, repetition, moving from simple to complex - use of case studies, ind and group learning activities

Malcom Knowles (2005)
What is Conceptual Learning?

- Process by which students learn how to organize information in logical mental structures
- Focuses on learning organizing principles – cubby holes in which mind organizes facts into ideas
- The difference between concept and content focused learning is... “the difference between facts of the oil spill and an understanding of the importance of environmental sustainability”
Teaching Conceptually

Focus is on CONCEPT

Exemplars provide content knowledge

Application of content to interrelated concepts

Application of other content to the concept
Benefits of Conceptual Approach

- Focus on problems
- Fosters systematic observations
- Fosters understanding of relationships
- Focus on nursing actions and interdisciplinary efforts
- Catalyst for challenging students
Drawbacks

- It is different
- Faculty resistant to changes
- Requires a different level of organization
- Lack of literature detailing steps
- What about NCLEX?
North Carolina Community College System - Associate Degree Nursing Programs

1 - Alamance CC
2 - Asheville-Buncombe TCC
3 - Beaufort County CC
4 - Bladen CC
5 - Blue Ridge CC
6 - Brunswick CC
7 - Caldwell CC & TI
8 - Cape Fear CC
9 - Carteret CC
10 - Catawba Valley CC
11 - Central Carolina CC
12 - Central Piedmont CC
13 - Cleveland CC
14 - Coastal Carolina CC
15 - College of The Albemarie
16 - Craven CC
17 - Davidson County CC
18 - Durham TCC
19 - Edgecombe CC
20 - Fayetteville TCC
21 - Forsyth TCC
22 - Gaston College
23 - Guilford TCC
24 - Halifax CC
25 - Haywood CC
26 - Isothermal CC
27 - James Sprunt CC
28 - Johnston CC
29 - Lenoir CC
30 - Mayland CC
31 - McDowell TCC
32 - Mitchell CC
33 - Nash CC
34 - Piedmont CC
35 - Pitt CC
36 - Randolph CC
37 - Richmond CC
38 - Roanoke - Chowan CC
39 - Robeson CC
40 - Rockingham CC
41 - Rowan - Cabarrus CC
42 - Sampson CC
43 - Sandhills CC
44 - South Piedmont CC
45 - Southeastern CC
46 - Southwestern CC
47 - Stanly CC
48 - Surry CC
49 - Tri-County CC
50 - Vance - Granville CC
51 - Wake TCC
52 - Wayne CC
53 - Western Piedmont CC
54 - Wilkes CC
55 - Wilson TCC

Colleges without ADN Programs
A - Martin CC
B - Montgomery CC
C - Pamlico CC

Associate Degree Nursing Curriculum Improvement Project
http://ADN-CIP.waketech.edu
Needs & Emerging Issues

- Standards last updated in 1996
- Major advances in healthcare sciences & services since 1996 update
- Curriculum revisions needed
  - To educate students to provide safe, competent nursing care practices
  - To update language in course descriptions in common course library
  - To assure easy transferability of students among colleges
Needs & Emerging Issues

- Changing curriculum focus
  - Conceptual learning
- Methods that include
  - Increased technology
  - Distant education
  - Simulations
Imperatives for Nursing Education Programs

- Curriculum that prepares graduates with competencies to:
  - Provide patient-centered care
  - Work in interdisciplinary teams
  - Employ evidenced based practice
  - Apply quality improvement processes
  - Utilize informatics
NLN Competencies

NLN Education Competencies Model

NLN Competencies

Nursing Practice Program Outcomes

Professional Identity

Spirit of Inquiry

Human Flourishing

Nursing Judgment

Doctorate

Practice-Focus

Research-Focus

Master's

Baccalaureate

Associate

Diploma

Practical Vocational

Integrating Concepts

Quality and Safety

Relationship-Centered Care

Teamwork

Context and Environment

Knowledge and Science

Personal/Professional Development

Caring • Diversity • Ethics

Excellence • Holism • Integrity • Patient-Centeredness
Research Based

- Health People 2010
- IOM
- CDC
- National Institute of Mental Health
- Institute for Healthcare Improvement
- National Center for Health Statistics
- NCLEX test plan
- The Joint Commission
- Most common causes of death
- Leading cause of death in your state
- Chronic disease prevention from CDC
- Most common office/ED visits
- ED admissions
- Chronic disease management
Developing a Concept-based Curriculum

- Domains
- Concepts
- Exemplars
Thermoregulation
Sensory/perception
Biophysical
Perfusion
Fluid & Lytes
Immunity
Oxygenation
Inflammation
Metabolism
Cellular regulation
Sexuality
Comfort
Infection
Reproduction
Mobility
Acid Base
Elimination
Tissue integrity
Intracranial regulation
Developmental

Autism

ADHD

National Institute Of Mental Health

Other

• Failure to Thrive
• Cerebral Palsy
Psychosocial

Stress & coping

Cognition

Grief & loss

Mood & affect

Behavior
Social-cultural

family
culture
diversity
Spiritual

- Spiritual health
- Spiritual wellbeing
- Spirituality
- Religion
- Higher consciousness
- Morality
- Spiritual distress
Health-Wellness & Illness

- Consumer education - Health People 2010
- Physical fitness
- Exercise
- Oral health
- Nutrition screening
- Life style choices
- Self management - IOM
- Immunizations - HP, IOM
Concept Components

- Definition of Concept
- Prevalence & Populations at Risk
- Personal Risk Factors
- Mechanisms/Consequences
- Clinical Manifestations
- Clinical Management
- Interrelated Concepts
- Concept Exemplars
Concept Definition /Exemplars

- Metabolism - processes of biochemical reactions occurring in the body’s cells that are necessary to produce energy, repair cells, maintain life

- Exemplars
  - Diabetes
  - Obesity
  - Thyroid Disease
  - Osteoporosis
  - Liver Disease
Concept: Oxygenation and possible exemplars

- Pneumonia
- RDS
- RSV
- COPD
- Pulmonary Edema
- Pneumothorax
- Oxygenation
- Asthma
- PE
Concept Development & Presentation

- Develop concepts according to template for consistency
  - Concept of Oxygenation
  - Assessment of Alterations in Oxygenation
  - Interdisciplinary Care
  - Exemplar - Asthma
    - Pathophysiology/Etiology
    - Risk factors
    - Clinical manifestations
    - Nursing care
Things to Consider

- Ways to engage faculty
- Compare current curriculum to IOM and QSEN
- Classes
- Labs
- Clinicals
- Transition during change
- Evaluation
Things to Consider

- Policies
  - Progression
  - Re-admission
- New student orientation
- Retention specialist
- Mentoring program for nurse faculty
Ex. Progression/Re-admit Policy

- Must complete all NUR and related courses with a grade of “C” or better
- Maximum number of readmissions is two per student
- Of those two, only one readmission can follow academic dismissal which includes earning grades of “D”, “F”, or “WF”
Example

Old - OB Course

Vs

New - Family
Introduction to Health Concepts – 1st semester

- Family
  - Family dynamics
  - Family structure & roles
  - Family response to health promotion & alterations
Family Health Concepts – 2nd/3rd semester

- Sexuality
  - Family planning & preconception counseling
  - Menopause
  - Sexually transmitted diseases
  - Menstrual dysfunction

- Reproduction
  - Antepartum, Intrapartum, Postpartum care
  - Newborn care, Prematurity
Family Health Concepts - 2nd/3rd semester

- Thermoregulation
  - R/T Newborn
- Grief and Loss - perinatal loss
- Safety
  - Responsible sexual behavior
  - Anticipatory guidance
Complex Health Concepts - last semester

- Family
  - Family response to critical alterations in health
- Community support
Example

Old - Peds Course Vs New - Across lifespan
Introduction to Health Concepts - 1st semester

Concepts r/t Nursing - Assessment

- Holistic health assessment across the life span
- Assessing normal
- Assessing abnormal
Family Health Concepts
2nd/3rd semester

- Infection – Conjunctivitis, Otitis Media
- Development – ADHD, Autism, Failure to thrive, Cerebral palsy
- Health, Wellness, & Illness - Immunization
- Oxygenation - Sudden Infant Death Syndrome
Health-Illness Concepts
2nd/3rd semester

- Cellular Regulation - Cancer
- Oxygenation - RSV, asthma
- Inflammation - appendicitis
- Metabolism - DM
Health System Concepts
2nd/3rd semester

- Violence - child abuse
- Clinical rotation
Holistic Health Concepts
4th semester

- Inflammation
- Nephritis
Health Care Concepts
4th semester

- Cellular regulation
- Leukemia
- Sickle Cell Anemia
Complex Health Concepts
last semester

- Family
  - Care of hospitalized child
- Perfusion
  - Ventricular Septal Defect
- Clinical
  - Acute care peds
Example
Old - Psych Course
Vs
New - Integrated
Introduction to Health Concepts – 1\textsuperscript{st} semester

- Stress and Coping
  - Anxiety assessment

- Cognition
  - Confusion

- Self
  - Self-esteem identity, self-perception, body image
Health-Illness Concepts

2nd/3rd semester

- Stress and Coping
  - Phobias
  - Panic disorder
  - Crisis
  - Generalized anxiety disorder
Family Concepts
2nd/3rd semester

- Mood and Affect
  - Post-partum depression

- Behavior

- Prenatal substance exposure
Holistic Care Concepts
4th semester

- Mood and Affect
  - Bipolar disorder
  - Depression

- Stress and Coping
  - Obsessive-Compulsive Disorder

- Cognition
  - Schizophrenia
  - Alzheimer’s disease / Dementia
Health System Concepts
4th semester

- Violence
  - Assault
  - Abuse – elder, child, sexual, intimate partner
  - Rape- trauma syndrome
Holistic Care Concepts
4th semester

- Self
  - Eating disorders
  - Personality disorders
- Violence
  - Suicide
Health Care Concepts
4th semester

- Behavior

- Addiction - nicotine use, alcohol abuse, substance abuse
Vision of Today's Teacher

http://www.youtube.com/watch?v=B4g5M06YyVw
Examples of Educational Strategies
Learning Strategies

- Experiential Learning
- Games
- Jigsaw
- Role Play
- Virtual Experiential Learning (Neighborhood)
Learning Strategies

- Simulation Learning
- Rounds
- Concept Analysis
- Case Writing
- Wikis
- Illuminate
- Blogs
Politics and Your Profession: Making Political Participation a Part of Your ‘Practice
Agenda

- How Politics Affects Healthcare & Your Profession
- Public Policy and Healthcare in State Government
- Hot Topics Impacting Nursing (You) at the N.C. General Assembly
- Nurse Rally on Legislative Lawn
  - Featuring invited elected officials
Let Your Voice Be Heard at the Legislature!

- Visit your legislators
- Attend legislative sessions
Exemplar

- Metabolic Acidosis

Case Study: Angelo Reyes
Case Study: Angelo Reyes

1. What underlying medical condition places Angelo at risk for developing an acid-base disturbance? Why?

2. What measures does Angelo Reyes take on a regular basis that could be considered preventative for acid-base disturbances.
Case Study: Angelo Reyes

3. What event triggered Angelo's acid-base disturbance?

4. List the signs and symptoms of acid-base disturbance Angelo developed. Explain the significance of these findings.
5. Analyze the diagnostic test findings for 1900 (on ED record). Explain the significance of these findings.

6. Document the collaborative interventions used to treat Angelo, the rationale for the intervention, and how the effectiveness of the intervention was evaluated.

7. What interrelated concepts are present in this situation?
Read the story of Patrick Richmond, nurse manager at 'The Neighborhood Hospital' (NBH), up to Season 2, episode 7. Examine the role of Patrick Richmond. Give one specific example of each of the following: how Patrick Richmond RN did or did not demonstrate responsibility as a manager in terms of a) communication to subordinates, and b) appropriate utilization of resources.
Domestic Violence in 'The Neighborhood' (discussion board)

Familiarize yourself with what’s going on with Jessica and Casey by reading their biographical information and their stories. There are subtle initial indicators of domestic violence that escalates over time, especially with Jessica’s pregnancy. Pay particular attention to Jessica’s story in Season 3, Episode 9-11 as Jessica finally seeks protection from Casey by going to a battered women’s shelter with her children. Also read the newspaper Season 1 Episode 12 (domestic violence hotline) and Season 2 Episode 1 (domestic violence toward pregnant women).
Discuss the following:

- Why doesn’t Jessica just leave Casey after the first incidence of abuse?

- What are some signs that an abuser is NOT changing? Which of these signs do you see in Casey?

- What can Jessica do to protect herself while living with Casey?

- What type of services are available at a domestic violence shelter?