Reform & Innovation:
The Conceptual Approach to Teaching Pain Management

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Shift Happens!

How will the future be different?
The future belongs to a very different kind of person with a very different kind of mind – creators and empathizers, pattern recognizers and meaning makers. These people – artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers – will now reap society’s richest rewards and share its greatest joys.

(Pink, 2006)
What is the additive curriculum?

- “Many nursing schools have dealt with the rapid growth of health research and knowledge by compressing available information into the curriculum and adding layers of content that require more instruction.” (IOM, 2010)
  - The Essentials of Baccalaureate Education for Professional Nursing Practice. (American Association of Colleges of Nursing, 2008) – The 21 year Curriculum???
- New approaches and educational models must be developed to respond to burgeoning information in the field. For example, fundamental concepts that can be applied across all settings and in different situations need to be taught, rather than requiring rote memorization. (IOM, 2010)

How much information is there?

- The National Library of Medicine’s Medline archives 64,000 new citations per month (U.S. National Library of Medicine, 2011)
- A nurse would need to read 17 articles a day every day of the year simply to remain current in their field of practice. (Hall & Walton, 2004)

Why is more not better?

- When the focus of education is on content, the amount of information “covered” is high, but the retention of that information is low........
  
  Why?
  Because of a failure to employ critical reflection, critical understanding, and critical reasoning.
How are nurses taught?

- Most nurse educators teach in the same manner in which they learned: in a content-focused, highly structured curricula.
  - Backwards Design Models
  - Outcomes-based education
  - Competency-based education

- What should be taught preempts how it should be taught
  - Results in boring courses
  - Alienates students
  - Reinforces rote learning
  - Prevents higher-order thinking

- Underlying assumption is that if important content is “covered,” thinking necessarily follows.

(Innsbruck, 2004)
What are learners’ perspectives?

I think a lot of the teachers here are caught in a time warp. They never change how they teach, and we keep getting more to know and getting more anxious. The patients we have to take care of are really sick and it is hard to learn what you need to know to be safe (in clinical experiences), while you are trying to memorize mountains of stuff for class. We are so tired trying to keep up! It will be a miracle if any of us last a year in practice after we graduate. No wonder there is a nursing shortage!

What does today’s classroom look like?

Today’s classroom looks a lot like the ones from 1890

But it is 2011!

What do we do in conventional pedagogy?

• Teachers like to be in control. Lecturing is safe. Our egos become inflated.
• Teacher ensures all content is delivered (passive learning experience).
• Focus is on content.
• It is assumed that if content is taught, students have learned it.
What is the problem and how does it relate to pain management?
- Knowledge pertaining to pain and its management is growing exponentially.
- Nursing education is experiencing content saturation; there is more content than can possibly be taught.
- Pain Management education is a small segment of this content.
- Inadequate pain relief still exists and is due, in part, to inadequate pain management practices by health care providers, including nurses.
- Most nurses have been taught basic Enduring Understandings related to pain management practices—yet, these understandings have not endured.
  - Pain management practices need to be taught differently.

What are the challenges for pain management education?
- Design content that reflects evidence-based pain management practices.
- Provide essential pain management knowledge without overburdening the learners.
- Offer multicontextual learning approaches related to pain management by promoting learner-centered education.
- Transform learning experiences that are inviting and encourage learners to change behavior and relearn the Enduring Understandings related to pain management.
Solution:
Conceptual Teaching and Learning

What is a Concept?
- Something conceived in the mind: thought, notion (Merriam-Webster, 2010)
- An abstract or generic idea generalized from particular instances (Merriam-Webster, 2010)
- A concept is an organizing principle or a unifying classification of information (Giddens, 2010)
- Human beings cognitively organize and store knowledge from general to specific (Ausubel, 1968)
- Concept formation begins in young children (Ausubel, 1968)

What is conceptual teaching?
- Definition: helping learners develop competence in a content domain through the use of Enduring Understandings
- Purpose:
  - Help learners relate what they know to what they learn
  - Help learners organize and retain information
  - Help learners see the link between diverse sections of factual information
  (Cranshaw, 2009)
How is conceptual teaching different?

- Content Centered
  - Facts and activities center around specific topic
  - Objectives drive instruction
  - Focus learning and thinking about specific fact
  - Based on memorization of factual information
  - Assumes this will lead to deeper understanding

- Concept Centered
  - Focus on linking information through the use of Enduring Understandings
  - Facts are used to support and explain Enduring Understandings

(Granshaw, 2009)

What is the shift that is happening?

Old Paradigm
- How much learners know

New Paradigm
- Locating, analyzing, interpreting, and applying information

Would you rather your learners...

- Be able to list all of the possible signs and symptoms of pain
- Be able to list all of the analgesics and their classification

OR
- Be able to discuss the impact individual experience and culture have upon the expression of pain?
- Be able to explain and apply multimodal pain management strategies in diverse scenarios?
What are some research findings about meaningful learning?

Recent Research Related to Learning with Understanding... (Bransford et al, 2000)

3 Major Findings...
1. Prior Knowledge is a major determinant of future learning
2. Understanding involves organizing/re-organizing knowledge around core concepts
3. Learning involves knowing when to use prior knowledge and skills for future learning (metacognition)

What is conceptual learning?

– Using schema to organize new knowledge.
– Developing units around concepts to help learners.
– Relating to and providing for schema based on students prior knowledge or experiences.
– Teaching knowledge/skill in context related to concepts.

Principle of Learning #1

• New understandings are constructed on a foundation of existing understandings and experiences
  • learners bring knowledge with them to the classroom and work environment
  • They bring perceptions resulting from previous knowledge from the everyday world
  • Their perceptions can be either powerful supports or barriers for further learning

(Cranshaw, 2009)
Principle of Learning #2

• Essential role of factual knowledge and conceptual frameworks in understanding
  • Factual knowledge must be placed in a conceptual framework to be understood
  • Concepts are given meaning by multiple representations that are rich in factual detail
  • Storing facts by using concepts to organize information allows for better retrieval and application

(Cranshaw, 2009)

Principle of Learning #3

• The importance of self-monitoring
  • Learners must take control of their own learning
  • Self-monitoring helps learners become independent learners
  • Must learn how to ask how new knowledge relates to or challenges previous knowledge
  • Support for self-assessment is an important component of effective teaching.

(Cranshaw, 2009)
What is an Enduring Understanding?

• Larger concepts or themes focused on principles, or processes within a domain, rather than discrete facts or skills
  • Universal and timeless
  • Applies to more than one time or place or culture
  • Applicable to new situations within or beyond the content
  • Basis of conceptual teaching
  • Provide scaffolding
  • Standards provide specificity to concepts

(Granshaw, 2009)

What is the purpose of Enduring Understandings?

• In order to teach conceptually, you must use Enduring Understandings because...
  – Creates scaffolding to organize facts
  – Uses broad statements that apply to many situations
  – Relates facts to what learners already know
• How do we teach conceptually using Enduring Understandings?
  – Introduce the Enduring Understandings at the beginning of class/meetings/educational units using real world experiences.

• EU’s are the vehicle by which we do conceptual teaching

(Granshaw, 2009)

What are the Enduring Understandings of pain management?

• Analgesia should be integrated into a comprehensive patient evaluation and management plan.
• The emotional and cognitive aspects of pain must be recognized and treated.
• There is no reliable way to objectively measure pain.
• Pain is most often undertreated, not over-treated.
• Pain control must be individualized.
  • Anticipate rather than react to pain.
  • Whenever possible, let the patient control his or her own pain.
• Pain control is often best achieved by rational polypharmacy.
• Pain control often requires a multidisciplinary, team approach.

(Ducharme , 2000)
What is the bottom line To learn

- Engage the learner’s initial understanding
  - Hook them into information by helping them see what they already understand about pain management
  - Not engage,
    - may fail to learn information
    - Learn for tests and revert to preconceptions outside of classroom
- Develop competence in content area
  - Expand foundational knowledge of pain management
  - Understand facts related to pain management in context of concept/Enduring Understandings
  - Organize pain management knowledge in ways that facilitate retrieval and application to practice

What are the challenges of concept-based learning?

- Causes teachers and learners to reexamine beliefs and values
- Faculty resistant to change
- Learners resistant to change
- Requires different level of coordination between teachers and learners
- Requires different preparation for educational encounters
- Lack of literature detailing steps

What are some teaching strategies?
What are concept maps?
Examples

What are lived experiences?
Examples

What is story telling?
Examples
What is a case study?
Examples

What is concept analysis?
Examples

What are some other teaching methods?
Examples
Teaching Beyond the Facts

*Trying to teach in the 21st century without conceptual schema for knowledge is like trying to build a house without a blueprint.*

-H. Lynn Erickson

Concept-Based Curriculum and Instruction

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