

Concept-based Curriculum in Nursing Education: Hype or Hope?

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Background & Statement of the Problem

- ▶ **CBC in nursing education-increasing across the US**
- ▶ **No clear pattern in student & program outcomes**
- ▶ **Faculty instruction - inconsistent with CBC principles**
(Duncan & Schulz, 2014; Fromer, 2017; Getha-Eby et al., 2015; Giddens & Morton, 2010; Kumm & Laverentz, 2017; Lewis, 2014; Murray et al., 2015)
- ▶ **Further research is needed to clarify how nurse educators are defining and practicing in CBC**

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Purpose of the research

- ▶ Study purpose:
 - ▶ Investigate classroom teaching practices of nursing faculty in NYS
 - ▶ Validate 2 instruments with nursing faculty

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Literature Review: Highlights of Quality in Nursing Education

- ▶ Pedagogies of inquiry
- ▶ Faculty expertise in education
- ▶ Teaching for salience
- ▶ Active learning
- ▶ Integrative teaching

AACN, 2008; Benner et al., 2010; IOM, 2014; NLN, 2008, 2005; NSNA, 2014; Robert Wood Johnson Foundation, 2012

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Literature Review: Education Practice Gap Berkow et al., 2009

- ▶ Quantitative: Survey
- ▶ Results
- ▶ Recommendations
 - ▶ Assess GN's to identify gaps
 - ▶ Use in new GN residency programs
 - ▶ Collaborate with SON

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Concept-based Instruction (CBI) in Higher Education

Gonzalez et al. (2008) & Veronese et al. (2013)

- ▶ Concept mapping with medical & dental students
- ▶ Results
 - ▶ Qualitative
 - ▶ Students noted that CM helped to look at **causality and connections; Helped integrate knowledge.**
 - ▶ Tutors most commonly described CMs as enhancing critical thinking.
 - ▶ Quantitative: higher scores on final exam ($p = .001$ & $.07$)

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Literature Review: Concept-based Instruction Nursing Education

Program Evaluations	Mixed Methods	Quantitative
Murray et al., 2015 (AD)	Murray et al., 2015 (AD)	
Giddens & Morton, 2010 (BS)	Giddens & Morton, 2010 (BS)	Duncan & Schulz, 2014 (BS)
Kumm & Laverentz, 2017 (AD)	Kumm & Laverentz, 2017 (AD)	Lewis, 2014 (AD)
Fromer, 2017 (AD)		Fromer, 2017 (AD)
	Getha-Eby et al., 2015 (AD)	

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Literature Review: CBC in Nursing

Quantitative Data

- Program outcomes
 - Retention
 - NCLEX
 - ATI scores
 - Graduation
 - Exam scores
 - Satisfaction
- PALS: teacher-centered

(Fromer, 2017; Duncan & Schulz, 2015; Getha-eby et al., 2015; Giddens & Morton, 2015; Kumm & Laventz, 2017; Murray et al., 2015)

Qualitative data

- Satisfaction
- Active learning
- Interactive small-group learning activities
- Engagement & meaningful learning

(Fromer, 2017; Getha-eby et al., 2015; Giddens & Morton, 2015; Kumm & Laventz, 2017; Murray et al., 2015)

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Literature Review: CBC & Nursing Recommendations

- ▶ **Conceptual linkages**
- ▶ **Spiraling curriculum & complex exemplars**
- ▶ **Evaluation**
- ▶ **Teaching strategies**
- ▶ **Faculty education**
(Getha-Eby et al., 2015; Giddens & Morton, 2010; Kumm & Laverentz, 2017; Murray et al., 2015)
- ▶ **Suggested research: instruction & evaluation**
(Fromer, 2017; Getha-Eby et al., 2015; Kumm & Laverentz, 2017)

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Survey Instruments

PALS

- ▶ Measures teachers' classroom behaviors and their expressed belief in student-centered, adult learning philosophies
- ▶ Reliability .92; Validity-field tested - adult basic ed teachers
(Conti, 1983)

C-BEETS[©]

- ▶ 16 questions created by researcher
- ▶ Designed to measure CBC essential elements
(Giddens et al, 2015; Ignatavicius, 2019)
- ▶ Pilot test - reliability & validity

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Results of the Study

PALS

- ▶ t-test - no significant difference in mean PALS scores (CBC vs. traditional)
- ▶ Construct validity of PALS was NOT confirmed in the study population of NYS nursing faculty.

C-BEETS[©]

- ▶ t-test - C-BEETS scores for faculty teaching in CBC > faculty in a traditional nursing program ($p < .001$)
- ▶ Construct validity - confirmed
 - ▶ Exploratory & confirmatory
 - ▶ two-factor pattern matrix

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Implications for Nursing Education

- ▶ New instrument for quantitative evaluation of CBC
- ▶ Nursing faculty - potential to improve practice
- ▶ Students - potential improvements in comprehension & application, critical thinking, clinical performance, grades
- ▶ Program evaluation - **potential for improvement of program parameters**
- ▶ New Grads - easier transition to practice
 - ▶ “Thinking Like a Nurse” (Tanner, 2006)

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Strengths & Limitations

- ▶ Single vs. multi-site CBC research
- ▶ Inclusive database of NYS nursing faculty
- ▶ Complete responses to all PALS and C-BEETS questions
- ▶ Factor analysis - use of EFM (PALS) and CFA (C-BEETS & PALS)
- ▶ Survey biases
- ▶ Limited Generalizability - NYS
- ▶ New instrument - C-BEETS

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Summary

- ▶ Lack of quantitative measurement of teaching behaviors in CBC classrooms
- ▶ C-BEETS is the first of its kind instrument to measure classroom behaviors of faculty teaching in a CBC classroom
- ▶ Expanded use of C-BEETS is a reasonable expectation to address this gap in CBC research
- ▶ Concept-based curriculum in nursing education - hype or hope?

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