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Patient Centered Care Coordination: the Impact of a Non-Acute Care Clinical Curricular Module on Nursing Student Learning Outcomes

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Patient Centered Care Coordination: the Impact of a Non-Acute Care Clinical Curricular Module on Nursing Student Learning Outcomes

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Background

According to the Institute of Medicine Future of Nursing Report (2010), baccalaureate nursing education must increase its emphasis on the professional nursing role of care coordination in order to meet changing health care needs.

Care coordination is focused on the patient's needs and preferences and involves:

> "the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services" in various settings (Camicia et al., 2013, p. 490).

According to the American Academy of Nursing on Policy:

> "Registered nurses' education should be enhanced throughout their didactic and clinical learning experiences by incorporating care coordination, including an emphasis on interprofessional, team-based care" (Camicia et al., 2013, p. 491).

We found only two research studies examining the outcomes of teaching care coordination and transitions of care in the literature: one study in nursing education and one in medical education.

Chronic Illness Care

- As of 2012, about half of all adults—117 million people—had one or more chronic health conditions. One of four adults had two or more chronic health conditions (CDC, 2016).
- Seven of the top 10 causes of death in 2010 were chronic diseases. Two of these chronic diseases—heart disease and cancer—together accounted for nearly 48% of all deaths. (CDC, 2016).
- Eighty-six percent of all health care spending in 2010 was for people with one or more chronic medical conditions (CDC, 2016).
- The clinical course in which this study was conducted includes an emphasis on chronic illness care. The Chronic Care Model informs course content.
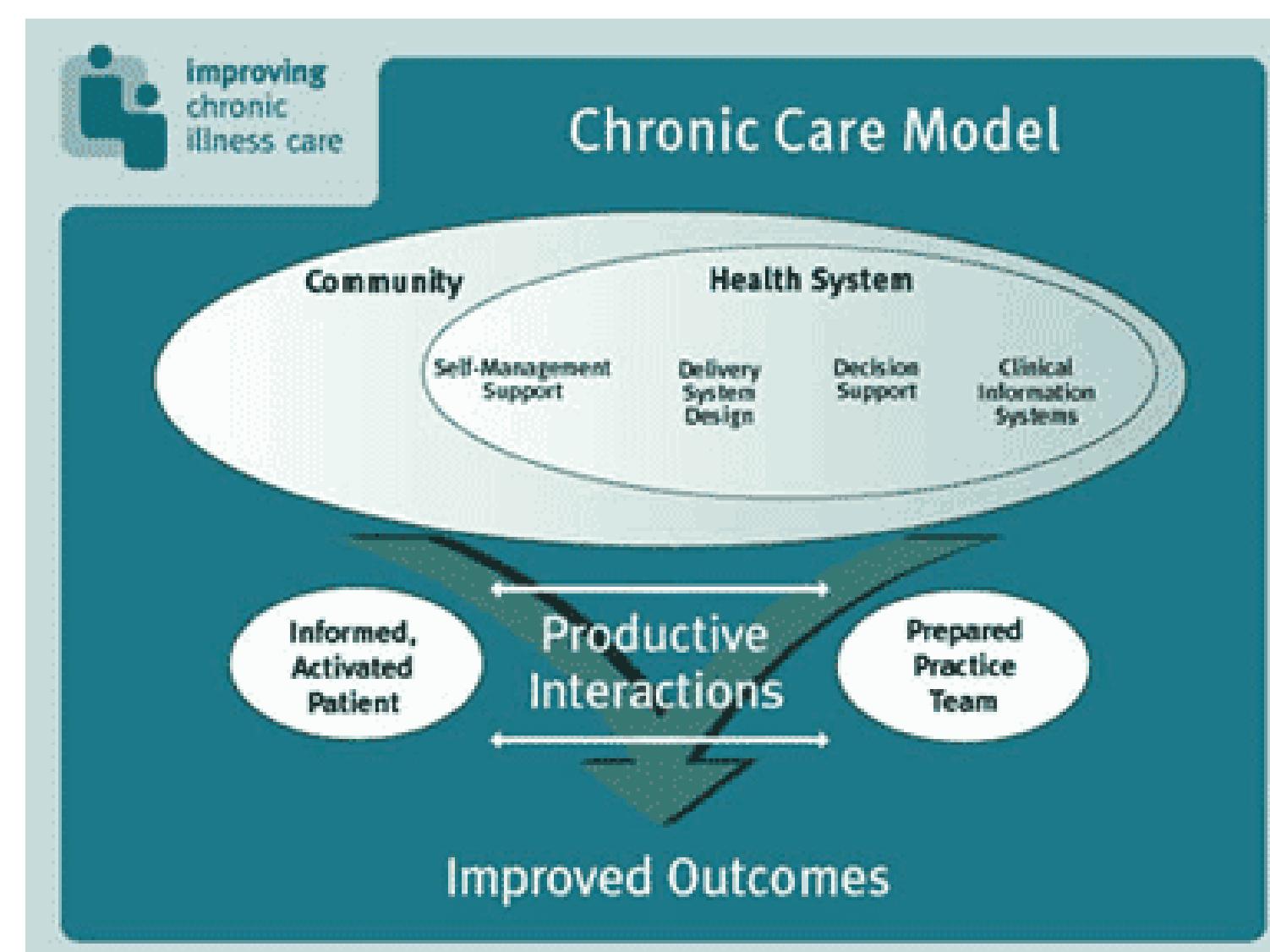
www.ihi.org

Curricular Module

Previously isolated experiences were consolidated into a cohesive module with a conceptual framework, learning outcomes, didactic content, and five non-acute clinical experiences with related assignments scheduled in two half-semester clusters.

- Ambulatory care virtual simulation
- Transitions of care low-fidelity case study
- Home care and hospice observations (two experiences)
- Community support group observation

Research Design

Single-site, quasi-experimental, mixed methods design

- 73 of 84 second semester junior students consented and all completed the study instruments
  - Predominately female (94.5%)
  - Younger than 23 (89%)
  - White (95.9%)1
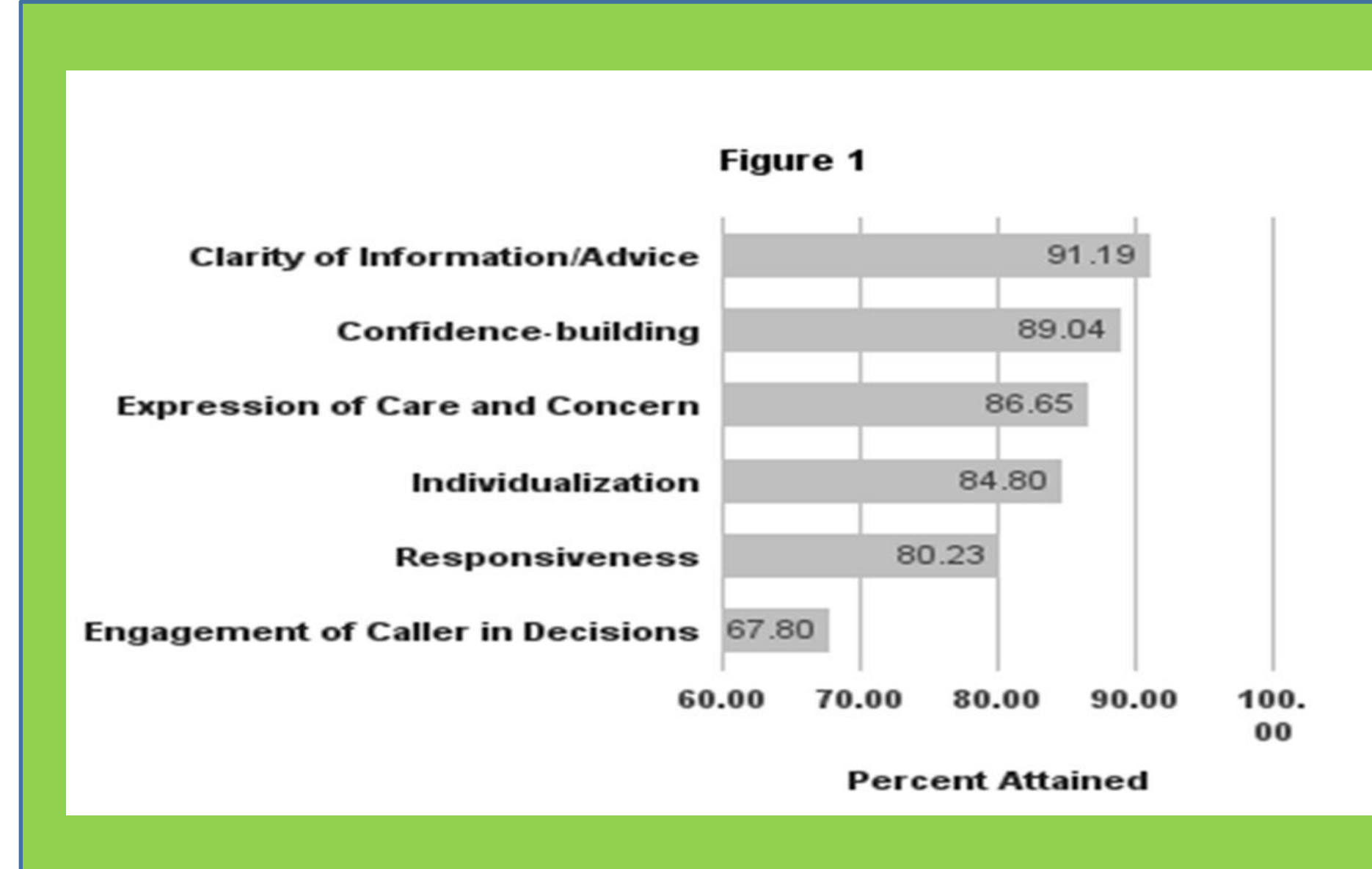 - Most with little or no prior healthcare experience

Data collection tools selected to evaluate Level 3 on Kirkpatrick and Kirkpatrick's (2006) four-level evaluation framework stressing reaction, learning, behavior, and results .

3 Data collection tools were used:

- Confidence in self-management support survey (CSMSS)
  - Researcher-developed 7-item Likert scale instrument
  - Pre-test/Post-test assessment of confidence level of study participants in providing chronic illness self-management support to patients
- Interpersonal communication style inventory (ICSI) (Shapiro, Izumi, Tanner, & Perrin, 2003).
  - 37 items/six domains measure participants' communication performance during a simulated patient telephone conversation
- Focus groups
  - 8-item semi-structured discussion guide

Results

Interpersonal communication style inventory (ICSI)

Figure 1

	Percent Attained
Clarity of Information/Advice	91.19
Confidence-building	89.04
Expression of Care and Concern	86.65
Individualization	84.80
Responsiveness	80.23
Engagement of Caller in Decisions	67.80

- Students demonstrated strength in clarity of information and advice given to the patient, in confidence building, and in expression of care and concern.

Confidence in self-management support survey (CSMSS)

Survey Items	Pre-Test		Post-Test	
	Mean	SD	Mean	SD
Providing self-care goal setting advice	2.9863	1.07359	4.0137	.61222
Explaining the best time to take medications	3.0274	.92755	3.8904	.71805
Talking to a patient about chronic illness self-management	2.6575	.83698	4.1233	.62239
Discussing lifestyle changes with a patient	3.0137	.92034	4.1644	.64579
Explaining dietary changes for chronic conditions	2.8493	.87672	3.8904	.71805
Encouraging patients in making changes to improve self-management	3.1233	.84894	4.3425	.62847
Determining patient need for self-management resources	2.6575	.83698	3.9726	.83288

- Participants demonstrated improvement in all items
- Demographic differences in the participant sample did not produce statistically significant differences in individual item statistics, nor in pre/post-test mean scores.
- The change in the pre/post-test mean scores computed using the simple paired t-test resulted in a p-value of <.001 and was significant at the .01 level.
- There was no statistically significant difference between the means of the post-tests for the first half of the semester and the second half of the semester

Four Focus Group Themes

Roles of the Professional Nurse	Valuing the patient/ family experience
Knowledge and skills that nurses need for PCCC	Challenges of the learning experience

Conclusions

The PCCC curricular module positively impacted student learning outcomes as evidenced by the CSMSS and focus group results. Student learning outcomes included:

- Valuing communication as fundamental to nursing care responsibilities in PCCC, mirroring the emphasis in the healthcare literature.
- Becoming more confident in communicating essential self-care concepts to patients and families.
- Understanding the educator role as more than merely providing information about a topic.
- View the nurse as a key resource and advocate for patients with chronic illness and their families.
- Changing behaviors in acute care settings as a result of their PCCC clinical experiences.

Recommendations

- Clinical learning activities such as those developed for this study should be used to build a conceptual foundation, provide clinical experiences in non-acute care settings, and create assignments that elicit demonstration of key attitudes and behaviors for PCCC.
- Nurse educators should consider how they can design effective independent student learning experiences with the necessary resources and support for learners.
- If case study learning experiences are used, enhancement of fidelity, such as incorporating video and/or audio recordings to create a "patient encounter", may elicit more meaningful learning.
- Future research determining the relationship between PCCC curricula and actual clinical competence and improved patient outcomes is warranted.

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