Use of the Innovation–Decision Process Teaching Strategy to Promote Evidence-Based Practice

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The purpose of this article is to describe the innovation–decision process teaching strategy (I-DPTS) based on the model of diffusion of innovations [Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press]. A goal of baccalaureate nursing education is to develop competencies required for evidence-based practice. Such practice merges clinician expertise, patient preferences, and critical evaluation of the literature to improve patient outcomes and reduce health care costs [Melnyk, B. M. (2005). *A primer on evidence-based practice*. Paper presented at the Purdue School of Nursing Seventh Annual Helen R. Johnson Leadership Conference, West Lafayette, IN]. Several strategies to promote evidence-based practice have appeared in the literature. However, when they are examined in light of the innovation–decision process (Rogers, 2003), they do not address all the essential steps for adoption to occur. The I-DPTS allows students to achieve competencies necessary to overcome barriers associated with implementing best practices. This strategy was successfully implemented in a senior-level introductory nursing research class. Community representatives identified practice issues that could be addressed by student groups. After conducting a search of the literature, students analyzed the evidence, determined best practice based on the evidence, and developed a policy for implementation in clinical settings. At course end, representatives were invited to attend oral and poster presentations. Use of the I-DPTS better prepares students to implement best practice as they embark on their professional careers. (Index words: Evidence based; I-DPTS; Baccalaureate; Best practice; Research utilization) J Prof Nurs 23:150–6, 2007. © 2007 Elsevier Inc. All rights reserved.

IT IS GENERALLY accepted that evidence-based practice contributes to improved patient outcomes and reduced health care costs (Youngblut & Brooten, 2001). Evidence-based practice merges clinician expertise, patient preferences, and critical evaluation of the literature (Melnyk, 2005; Stetler et al., 1998; Youngblut & Brooten, 2001). Baccalaureate-prepared nurses, given the emphasis on leadership, critical thinking, and communication in their curricula, are ideally positioned to advance best practices. Therefore, nursing faculty must create educational strategies for students that develop a lifelong commitment to critically examine nursing practice in light of scientific advances.

Although the nursing education literature provides abundant examples of teaching strategies to foster evidence-based practice, many of these strategies remain academic exercises that fail to translate into practice changes. The purpose of this article is to describe the innovation–decision process teaching strategy (I-DPTS) that is based on the model of diffusion of innovations (Rogers, 2003). Student abilities are developed as they collaborate on an evidence-based practice assignment that holds the potential of effecting actual change in patient care. By progressing through the five steps of the innovation–decision process (Rogers, 2003), students evaluate evidence to determine best practice for contemporary clinical problems in collaboration with representatives from local community agencies. Throughout this teaching strategy, a variety of student competencies necessary for critically examining nursing practice are met (see Table 1).

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Table 1. Student Competencies for the I-DPTS

Articulate how evidence-based practice can effect positive patient outcomes.

Recognize clinical problems that can be addressed through evidence-based practice.

Conduct an advanced search of the literature.

Analyze components of the research articles.

Evaluate the strength of research findings.

Synthesize evidence to determine best practice.

Write an evidence-based practice policy.

Create an implementation plan for changing practice.

Disseminate information through oral and poster presentations.

Appreciate how collaboration serves the community.

Develop group process skills: collaboration, leadership, negotiation, and time management.

Review of Literature and Conceptual Model

Dufault (2001) notes, "advances in research are meaningless unless they reach clinicians at the point of care" (p. 1). Studies demonstrate that nurses do not utilize nursing research in their practice. Barriers, such as the communication gap between researcher and clinician (Brown, 1995), organizational culture, lack of time, as well as the inability of individuals to evaluate nursing research have be identified by registered nurses (Champion & Leach, 1989; Funk, Champagne, Wiese, & Tornquist, 1991; Kajermo, Nordstrom, Krusebrant, & Bjorvell, 2000; Pettengill, Gillies, & Clark, 1994), health care administrators (Funk, Champagne, Tornquist, & Wiese, 1995), midwives (Meah, Luker & Cullum, 1996), and oncology nursing staff (Rutledge, Ropka, Greene, Nail, & Mooney, 1998). Strategies that do not overcome these barriers do little to promote evidence-based practice. Therefore, when designing approaches to advance research utilization, it is necessary to consider a framework that allows these issues to be resolved.

The model of diffusion of innovations has been used in nursing as a conceptual framework for explaining the process of research utilization in nursing (Barta, 1995; Carroll et al., 1997). However, the model (Rogers, 2003) has been refined since these works to include four major concepts: innovation, communication, time, and social system. Rogers (2003) defines diffusion as "the process by which (1) an *innovation* (2) is *communicated* through certain *channels* (3) over *time* (4) among the members of a *social system*" (p. 11). An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. Adoption of an innovation involves reducing uncertainty through information seeking as the relative advantages and disadvantages of the innovation are evaluated. An S-shaped curve of diffusion is typically associated with innovations. Initially, only a minimal number of individuals, known as early adopters, embrace the innovation. With time, early adopters who are opinion leaders, through their interpersonal networks, become instrumental in the diffusion process and the diffusion curve "takes off" when reaching about 10% to 20% adoption in the social system. With a successful innovation, the adoption curve levels out with the diffusion of the innovation throughout the social system.

The challenge facing nursing educators is to socialize students to become early adopters by cultivating their abilities to participate in the innovation–decision process so that they maintain an evidence-based practice. Rogers (2003) defines the innovation–decision process as an information-seeking process that involves five steps: knowledge, persuasion, decision, implementation, and confirmation. When an individual first acquires information about the innovation, knowledge is gained. Through persuasion, the individual forms an opinion about the innovation, followed by a decision to accept or reject the innovation. Implementation, the use of the innovation by the adopter, is later confirmed as the adopter seeks information indicating that the innovation is advantageous or not.

Table 2. Linkages of Student Competencies With Theory of Diffusion of Innovations

Student Competency	Key Concept	Step in Innovation–Decision Process
Articulate how evidence-based practice can effect positive patient outcomes.	Innovation, social system	Knowledge
Recognize clinical problems that can be addressed through evidence-based practice.	Social system, innovation, communication, time	Knowledge
Conduct an advanced search of the literature.	Innovation, communication, time	Knowledge
Analyze components of the research articles.	Innovation, communication, time	Persuasion
Evaluate the strength of research findings.	Innovation, communication, time	Persuasion
Synthesize evidence to determine best practice.	Innovation, time	Decision
Write an evidence-based practice policy.	Innovation, time	Implementation
Create an implementation plan for changing practice.	Communication, social system	Implementation, confirmation
Disseminate information through oral and poster presentations.	Communication, social system, time	Implementation
Appreciate how collaboration serves the community.	Communication, social system	Confirmation
Develop group process skills: collaboration, leadership, negotiation, and time management.	Social system, communication, time	Knowledge, persuasion, decision, implementation, confirmation

Note: "Key Concept" and "Step in Innovation–Decision Process" column headings use data from Rogers, 2003.