Diversifying the Pipeline Into Doctoral Nursing Programs: Developing the Doctoral Advancement Readiness Self-Assessment

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This article presents the development and psychometric analysis of the Doctoral Readiness Self-Assessment for Doctoral Study. This survey was developed as the first step of a Web-based, online mentoring platform for nurses who are considering a doctoral degree program. By identifying and anticipating the predictors and barriers of success in doctoral nursing education, including practical (finances, time, geographical restriction) and personal factors (motivation, attitudes, perceived ability to navigate the application process), students are guided through a self-reflective process to determine readiness. Factor analysis revealed that interest, readiness, and support represent 3 distinct factors that may be used for additional analysis to predict future enrollment in doctoral nursing degree programs. The internal reliability analysis revealed that removing 3 items from the 15-item scale increased Cronbach's alpha from 0.75 to 0.80, and these factors explained 51.25% of variance. The self-assessment results can inform faculty's work as they mentor and guide students through the application, admission, and financial support processes for doctoral study. (Index words: Readiness self-assessment; Doctoral education; Preparedness for graduate school; Self-assessment validity; Graduate school readiness) J Prof Nurs 0:1–8, 2016. © *2016 Elsevier Inc. All rights reserved.*

THE PURPOSE OF the article is to describe the development and examination of the psychometric properties of the Doctoral Readiness Self-Assessment survey, a newly designed instrument to assist prospective doctoral nursing students, contemplate advanced studies, and self-determine readiness. The first phase of doctoral study has been described as the phase leading up to admission into the program until the period when coursework begins (Gardner, 2009). Through this self-reflective survey, including practical (finances, time, geographical restriction) and personal factors (motivation, attitudes, perceived ability to navigate the application process), potential students identify and anticipate readiness for doctoral nursing education. The theories of

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readiness informed the development of the Doctoral Readiness Self-Assessment survey.

Background and Significance

A key recommendation from the 2011 Institute of Medicine Report, *The Future of Nursing: Leading Change, Advancing Health*, was that nurses achieve higher levels of education to respond to demands of the health care system (Institute of Medicine, 2011). Specifically, this report recommended doubling the number of nurses with a doctoral degree by 2020. Despite the slow growth in doctoral nursing programs in the 1980s and 1990s, the number of programs and program graduates increased substantially since the American Association of Colleges of Nursing *Position Statement on the Practice Doctorate in Nursing* was endorsed in 2004. Approximately 55% of the 2.8 million registered nurse (RN) workforce holds a bachelor's or higher degree with 0.4% holding doctorate degrees (Health Resources and Services Administration, 2010). Faculty shortages in nursing schools continue to exist and present a significant barrier to efforts to expand the nursing workforce, while at the same time nurse scientists with research-focused doctoral degrees are needed to advance the discipline and keep pace with expanding knowledge of basic and applied sciences of health care. Compounding this issue is the aging of the RN workforce. It is anticipated that more than one third of the current workforce will retire in the next 10 to 15 years (Health Resources and Services Administration, Bureau of Health Professions, & National Center for Health Workforce Analysis, 2013). Retirement of large numbers of RNs over the next two decades means a loss of experiential knowledge and leadership. A population of doctorally prepared nurses, early in their careers, will potentially fulfill team leadership roles at clinical sites and educate the future nursing workforce.

Scholarship recipients of the Robert Wood Johnson New Careers in Nursing (NCIN) program indicated upon admission to nursing programs that they planned to pursue higher degrees beyond their baccalaureate degrees. This population of newly licensed nurses indicated their intent to earn doctor of nursing practice (DNP) (43%) and doctor of philosophy (PhD) (10.3%) degrees. Because of this expressed interest by NCIN scholars and recognition of the need to increase early career doctoral enrollment, a process was developed to inform, encourage, and facilitate enrollment in doctoral programs in nursing. The Doctoral Advancement in Nursing (DAN) program was initiated as a pilot project in 2013 to address this need for more doctorally prepared early career nurses.

Grasso, Barry, and Valentine (2009) identified that for optimal doctoral program completion, the applicants must be realistic about the demands and expectations of doctoral study; many graduate students enter with false expectations concerning the realities of graduate school, and most students never fully assessed their readiness for a doctoral program because they did not think to do so. Lovitts (2001) argued that the discrepancy between students' expectations and the reality of graduate school contributed to doctoral noncompletion.

These findings informed the work of the advisory group assembled to guide the DAN program. A white paper, *Doctoral Advancement in Nursing: A roadmap for facilitating entry into doctoral education* (NCIN, 2013), and toolkits were developed. One toolkit to guide faculty, *Doctoral Advancement in nursing Faculty Toolkit* (Huerta, Murray, Millett, Choi, & DeWitty, 2013), and one to guide students, *Doctoral Advancement in Nursing Student Toolkit* (Tabloski, Millett, Choi, & DeWitty, 2013), were developed as resources to guide mentoring relationships focused on supporting doctorally interested students from the application process through admission.

Literature Review

A search of the literature did not reveal a conceptual framework that focused on student readiness for graduate-level studies. However, readiness theory provides context for a discussion of student readiness for undergraduate studies but may also apply to graduate-level studies.

Readiness Theory

Conley (2007) described college readiness as "the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program" (p. 5). While Conley focused on college readiness, the key components of the theory may readily apply to graduate studies as well. The four elements of readiness include the following:

- key cognitive strategies (i.e., intellectual openness, inquisitiveness, analysis, reasoning, interpretation, precision, problem solving)
- academic knowledge and skills (i.e., research, writing, knowledge of core educational areas)
- academic behaviors (i.e., self-awareness, self-monitoring, self-control), and
- contextual skills and awareness (i.e., an understanding of the college educational system, human relations skills, coping skills).

These elements are not static or mutually exclusive; rather, they influence each other and are honed over time.

The Self-Directed Learning Readiness Scale for Nursing Education was designed specifically for nursing educators in Australia to help them measure the readiness of students for self-learning (Fisher, King, & Tague, 2001). This 40-item instrument with three scales, self-management, desire for learning, and self-control, was validated as a reliable tool to assist nurse educators in the diagnosis of student learning needs. Researchers suggest that having realistic knowledge about graduate study prior to beginning a doctoral study is one characteristic that differentiates completers and noncompleters (Lovitts, 2001). Byrd and MacDonald (2005) interviewed eight