Organizational and Faculty Determinants Associated with Health Information Technology Adoption in DNP Programs: A Descriptive Study

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Introduction
Incorporation of health information technology (HIT) content into Doctor of Nursing Practice (DNP) curriculum is vital to enable a workforce capable of utilizing health care technologies to provide safer, more efficient, timely, patient-centered care. Yet little is known about the extent to which informatics has been integrated into DNP curricula.

Study Purpose
The purpose of the study was to explore:
- The organizational and faculty factors and determinants that lead to actions characteristic of DNP programs to implement nursing informatics content into their curricula.
- The degree to which the accreditation standard and informatics guidelines have been met across programs.
- The outcome of the Technology Informatics Guiding Educational Reform (TIGER) Initiative Foundation’s Phase II goals and recommendations as they relate to the Education and Faculty Development Collaborative.

American Association of Colleges of Nursing’s Essential IV for Doctorate of Nursing Curricular Content
Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care.

DNP Programs
- 138 DNP programs were identified nationally from the AACN website as accepting DNP students in November, 2011.
- 82.6% Response Rate/114 Respondents.
- 81.1% Valid Response Rate/112 Respondents.

Study Procedures
1. Rogers’ Diffusion Theory was the organizing framework.
2. Developed survey questions with input from TIGER leaders.
3. Consulted three nursing informatics leaders to establish content validity and revised survey based on their responses.
4. Piloted survey using three academic leaders at three leading informatics-oriented educational institutions and revised survey based on their responses.
5. Identified the current DNP programs from the AACN website and followed up weekly with email/telephone reminders.

Primary Study Results
Key findings about faculty
- 55.4% of the participating DNP programs had nursing informatics certified faculty or faculty with master’s degrees or higher in nursing informatics.
Key findings about nursing informatics courses
- 81 respondents (72.3%) replied that their educational institutions offered specific nursing informatics courses.
- 44.5% (N=50) of participants responded that no nursing informatics courses were required.
- 38.6% (N=41) of participants answered that one class was required.
- 92% (N=103) answered that no elective nursing classes were offered in their DNP programs.
- 89% (N=82) of the educational institutions which do not offer dedicated nursing informatics courses integrated nursing informatics content into other DNP courses.
Key findings about technology
- 75.5% of participants (N=83) replied that their educational institutions had access to an EMR/EHR/PHR to help students learn informatics and technology related content.
- For those which did have an EMR/EHR/PHR, just 39.8% of the respondents reported that 50% or more of the faculty would be comfortable using the electronic record as a teaching tool.
Key findings about the degree of adoption of innovation

Study Implications
- To increase the awareness of current informatics/HIT in the DNP curricula, these study results need to be disseminated through presentations and publications.
- To enhance individual competencies for personal and professional goals, DNP students and faculty can access the TIGER Virtual Learning Environment.
- To gain a higher number of informatics-prepared faculty, deans and DNP program directors could encourage interested faculty to obtain further informatics education. Continued educational federal stimulus support is needed for doctoral or post-doctoral students to complete a Masters in Health Informatics degree in 2 years.
- To encourage the development of informatics coursework, accrediting bodies could encourage educational institutions to refer to the TIGER Collaborative Framework and guidelines to strengthen the informatics/HIT component of their programs. Those educational institutions, which have nursing informatics certified or master’s prepared faculty and have met Essential IV, could give advice to educational institutions which need assistance on the development of informatics/health information technology curricula.
- Implications for TIGER include the need for members to spread the word about the Initiative Foundation’s framework and Collaborative Reports. TIGER could initiate regional conferences for deans and DNP program directors to learn more about the TIGER competencies framework. TIGER could continue to sponsor projects for DNP class assignments and Inquiry Projects. TIGER could partner with educational institutions to update the curricula to educate students in the unfolding digital era in healthcare.

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