DIFFERENCES IN PREFERRED TEACHING STRATEGIES: A QUANTITATIVE STUDY OF NURSING STUDENT PERSPECTIVES

by

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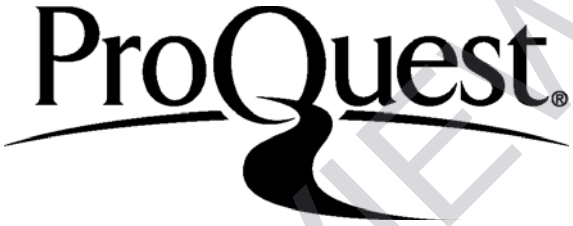

Abstract

The preparation of nursing students to meet the demands of the nursing profession remains the goal of academic institutions worldwide. The most productive methods of preparation, including specific teaching strategies to attain that goal, have long been debated. This quantitative, non-experimental study included an investigation of the most preferred teaching strategies among baccalaureate degree nursing (BSN) students in an effort to support the development of best practice recommendations for meeting the andragogical needs of adult learners and aid in the preparation of effective nurses who practice safely. The results of the study showed that BSN students most prefer hands-on, simulation-based teaching strategies and least prefer concept-mapping as a primary teaching strategy. The results of the study also indicated that the only differences in preferred teaching strategies among BSN students were in relation to academic year, most specifically differences between junior and freshman academic years. With regard to correlations between learning styles and preferred teaching strategies, the results of the study found significant correlations between BSN students' self-identified learning styles and their preferred teaching strategies. The results of the study indicated that nursing educators should implement hands-on, learner-centered teaching strategies in an attempt to meet the learning needs of BSN students. Finally, the implications of the study support the use of students' dominant learning styles to drive the choice of teaching strategies in the academic setting.

Dedication

This dissertation is dedicated to my parents, Mike and Deb, who have stood by me, encouraged me, offered a listening ear, a shoulder to cry on, and their strength to lean on. There were days when I couldn't see the light at the end of the tunnel and wondered why I ever started this process. You both pushed me through and for that I will be forever grateful. To my sister, Tessa, for the emergent technical and statistical support that more than once saved me from a mental breakdown. To my brother Zac, for the motivational speeches, you have a way with words my man. Last but certainly not least, to my best friend and brother Colton, your words of encouragement and promises that it would all be worth it in the end were sometimes exactly what I needed to get through another long night of writing, well that and wine! I love you all and I could not have done this without you!!

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

As the nursing profession becomes more complex, nursing educators are tasked with developing cutting-edge teaching strategies to prepare students to meet the challenges of the workforce. While nursing educators must rely on research and evidence-based practice to support their choices of teaching methodology, andragogical principles dictate that adult learners be given a voice in the development and use of teaching and learning methods (Knowles, Holton, & Swanson, 2011). At present there is minimal research exploring the nursing students' preferred teaching strategies. Therefore in an effort to add to the existing body of knowledge, this quantitative research study provided an investigation of the differences in preferred teaching strategies among baccalaureate degree nursing (BSN) students based on student age, gender, academic year, traditional/non-traditional status and sought to identify any correlations between preferred teaching strategies and self-identified learning styles.

Endeavoring to identify the nursing students' preferred teaching strategies creates a sense of partnership between educators and learners within the learning environment. Martin, McCormack, Fitzsimons, and Spirig (2014) stated that providing nursing students with the ability to partner with educators in a shared governance role, and engage in the creation of the learning environment, ultimately promotes a sense of ownership and investment in the outcome of the educational journey. Research in nursing education has only superficially explored available

teaching strategies, effective teaching strategies, and preferred teaching strategies from both the educator and student perspectives.

Furthermore, existing research in nursing education has not identified validated connections between learning styles and preferred teaching strategies. In fact, when using a learning styles inventory that explores visual, auditory, reading/writing, and kinesthetic learning styles most nursing students identify with more than one learning style, making them multimodal learners (Frantz & Mthembu, 2014; Prithishkumar & Michael, 2014; Whillier et al., 2014). The implementation of teaching strategies based on multimodal learning styles adds significant complexity to the nursing learning environment. In order to comprehensively explore preferred teaching strategies from the largest population of nursing students, this study provided an investigation of the differences in BSN students' preferred teaching strategies based on age, gender, academic year, traditional/non-traditional status and the correlations to self-identified learning styles, in an effort to aid in the development of best practice recommendations for nursing educators.

The remainder of Chapter 1 will review the background and context of the study, a brief overview of the theoretical framework supporting the study, the problem being explored, the purpose of the study, the rationale for the study, the relevance and significance of the study, definitions of all relevant terms used throughout the study, and finally the assumptions, limitations, and delimitations of the study.

Background, Context, and Theoretical Framework

The underlying research philosophy of the study was embedded in the components of a post-positivist world view. Arghode (2011) stated that positivists believe if there is a problem, a

solution can be found through the collection and analysis of numerical data. Quantitative research often fits the positivist or post-positivist philosophy due to the objective nature of the research designs and the use of numerical data. The identified gap in the literature related to nursing students' preferred teaching strategies and the corresponding areas for improvement of the educational environment led to the development of this study. Additionally, the domains of Bloom's taxonomy and the theory of andragogy offered theoretical support for the study.

Background and Context

The field of nursing education is dynamic and must evolve to meet the demands of the healthcare industry. Nursing educators not only teach concepts but must also develop in students the skills and expertise to provide safe, effective, and compassionate care to patients experiencing often the most trying times of their lives. Both recent and seminal literature show that having an understanding of the students' preferred teaching strategies is of significant benefit to educators. Ahmed (2012), Justicia, Arias, Martinez, and Berben (2005), Knowles et al. (2011), Su and Osisek (2011), and Thompson and Sheckley (1997) all confirmed that adult learners prefer cooperative, student-driven teaching, while Dunn and Griggs's (1995) meta-analysis of 36 research studies showed that students do achieve better learning outcomes overall when personal teaching preferences are the primary means of instruction. When choosing instructional activities, nursing educators must thoughtfully consider both effective teaching strategies and the students' preferences.

In terms of effective research supported teaching strategies, a number of researchers have explored the general educational approaches that lead to the best learning outcomes. Members of the Oregon Consortium for Nursing Education ([OCNE], 2015) have documented a plethora of research supporting improved student learning outcomes under a competency, or problem-

based curriculum model. More specifically, case studies, as an identified method of problem-based instruction, have proven especially effective in increasing the critical thinking skills of students in the classroom (Brandon & All, 2010; Kaddoura, 2010). Yet, the entirety of specific teaching strategies encompassed in the problem-based domain can be vast and varying. This study provided some of the additional research needed to narrow the scope of problem-based teaching strategies and to gain feedback from the BSN student population as to the most preferred specific teaching strategies.

Very few research studies have been conducted in the field of nursing education exploring the nursing students' teaching preferences. However, Clark (2010) identified traditional lecture, PowerPoint® presentations, case studies, concept mapping, simulation exercises, and interactive discussions as the most commonly used teaching tools in nursing education. In an effort to add to the existing literature, the most commonly employed teaching methods were included in this study as the pool from which participants were able to rank their teaching strategy preferences. The limited existing research provided an area of opportunity for the results of this study to be used to expand the current body of knowledge that has identified nursing students' preferences for team-based collaborative simulation exercises, group discussions, and technology laden instruction (Arpanantikul, & Luecha, 2010; Kowalczyk, Hackworth, & Case-Smith, 2012; Marchigiano, Eduljee, & Harvey, 2011; Montenery et al., 2013; Popil, 2011). The results of this quantitative study also identified areas of opportunity for further future studies correlating student's preferred teaching strategies with teaching strategies that demonstrate the best performance outcomes. Devlin and Samarawickrema (2010) asserted that creating alignment between effective teaching practices and student preferences is imperative for improving learning outcomes.

Theoretical Framework

The domains of Bloom's taxonomy and the theory of andragogy were the theoretical frameworks from which this quantitative study was founded. The stages of Blooms' taxonomy are knowledge, comprehension, application, analysis, synthesis, and evaluation (Su & Osisek, 2011). The identification of the most preferred teaching strategies among BSN students has been used to support effective teaching strategies that aid students in progressing through the stages of Bloom's taxonomy. Additionally, the understanding of the specific teaching strategies that students prefer based on gender, age, academic year, and traditional/non-traditional status, along with the correlations between preferred teaching strategies and self-identified learning styles, has added to the theoretical knowledge base in terms of supporting the progression of students' learning throughout a four-year baccalaureate degree program.

The theory of andragogy, on the other hand, has long been applied to the higher education setting. Andragogy holds that adult learners need to see the connection between what and how they are learning and the real world application of their knowledge and skills (Knowles et al., 2011; McKee & Billman, 2011). Utilizing teaching strategies that allow students to make the distinct connection between theory and practice supports the use of andragogical principles in nursing education. More specifically, the understanding of the differences in preferred teaching strategies based on age, gender, academic year, and traditional/non-traditional status garnered from this study can be used to further develop the nursing educators' teaching practices.

The identified gap in the literature highlighted the lack of knowledge pertaining to the nursing students' preferred teaching strategies. The methods utilized in this quantitative study gathered data to enhance the limited existing literature by exploring the preferred teaching strategies of BSN students, related to age, gender, academic year, traditional/non-traditional

status and self-identified learning styles. As a theoretical foundation, Bloom's taxonomy described the learning processes that students progress through during the course of their education (Seaman, 2011; Walden & Gordon-Pershey, 2013). As entering freshman, students are focused on knowledge acquisition. As students progress on to the sophomore level, the previously gained knowledge promotes further comprehension of more complex nursing concepts. In the sophomore and junior levels of nursing education students begin bedside clinical practice requiring advancement to the application and analysis stages of Bloom's taxonomy (Grealish & Smale, 2011). Finally, as senior level nursing students near graduation, prepare to sit for the National Council Licensure Examination (NCLEX-RN©), and anticipate entering professional practice, synthesis and evaluation of learning takes place in a more autonomous way. Throughout students' learning stages and processes, applying teaching strategies that students connect with in a practical way will provide a smoother progression from one stage of Bloom's taxonomy to another.

In addition, the principles of andragogy describe the learning needs of adult learners. Draganov, de Carvalho Andrade, Neves, and Sanna (2013) explained that andragogy in nursing education supports a collaborative relationship between student and teacher in the development of the learning environment, in terms of teaching methods and strategies. The results of this study, identifying the nursing students' preferred teaching strategies will allow nursing educators to enhance the use of diverse teaching methods and incorporate preferred teaching strategies to create a learning environment that meets the andragogical learning needs of students.

Statement of the Problem

Emerging research in nursing education has demonstrated an increased focus on cohesion between student learning preferences and evidence-based teaching strategies as a means of producing safe and effective professionals. The Institute of Medicine ([IOM], 2011) and the National League for Nursing ([NLN], 2003) have called for a rapid transformation of nursing education practices, focusing on greater inclusion of student learning styles and preferences and adherence to evidence-based teaching practices. Educational research, investigating efficacious teaching strategies, supports kinesthetic learning (Koch, Salamonson, Rolley, & Davidson, 2011) and Kaddoura (2010) confirmed that students prefer hands-on teaching strategies. Furthermore, Kowalczyk (2011), along with Slavich and Zimbardo (2012) and Yuan et al. (2011), found that problem-based learning, including collaborative discussions, case studies, and group simulation, led to greater knowledge retention and development of critical thinking skills as opposed to traditional lecture based instruction alone. While previous researchers have superficially explored both effective and preferred teaching styles, there is limited supporting literature to identify specific teaching strategies that students most prefer. Additionally, existing research has offered minimal correlation or comparisons between learning styles, preferred teaching strategies, and student variables such as age, gender, academic year, and traditional/non-traditional status. Although, in a study of generational differences in preferred teaching strategies of dental science students, Henry (2011) found that health science students in general are such a unique student population and as a group often prefer similar teaching methods based on the material being taught rather than extraneous factors such as age. In summary, the research literature addressing BSN students' preferred teaching strategies has indicated that students are known to be primarily multimodal learners with preferences for hands-on and problem-based

teaching methods and student collaboration in the creation of the learning environment has been proven to produce the best learning outcomes. What is not known is if there are differences in preferred teaching strategies among BSN students based on student age, gender, academic year, traditional/non-traditional status or if there are correlations between students' preferred teaching strategies and self-identified learning styles.

Purpose of the Study

The purpose of the this quantitative non-experimental study was to investigate the differences in preferred teaching strategies of BSN students based on age, gender, academic year, and traditional/non-traditional status. Additionally, the researcher sought to identify any existing relationships between preferred teaching strategies and self-identified learning styles. The goal of the study was to provide nursing educators with evidence-based teaching guidelines that could be used to improve learning outcomes and create safe and effective nursing professionals.

Research Questions and Hypotheses

The development of the research questions for the study was driven by the identified gaps in the literature and the research questions helped to shape the quantitative methodology of the study. Each research question is accompanied by the alternative and null hypotheses. The primary research question is followed by five sub questions that aid in answering the primary question.

Research question 1. Are there significant differences in preferred teaching strategies among subgroups of baccalaureate degree nursing students?

Alternative hypothesis 1. There are significant differences in preferred teaching strategies among subgroups of baccalaureate degree nursing students.

Null hypothesis 1. There are no significant differences in preferred teaching strategies among subgroups of baccalaureate degree nursing students.

Research question 2. Is there a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on age?

Alternative hypothesis 2. There is a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on age.

Null hypothesis 2. There is no significant difference in preferred teaching strategies of baccalaureate degree nursing students based on age.

Research question 3. Is there a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on gender?

Alternative hypothesis 3. There is a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on gender.

Null hypothesis 3. There is no significant difference in preferred teaching strategies of baccalaureate degree nursing students based on gender.

Research question 4. Is there a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on academic year?

Alternative hypothesis 4. There is a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on academic year.

Null hypothesis 4. There is no significant difference in preferred teaching strategies of baccalaureate degree nursing students based on academic year.

Research question 5. Is there a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on traditional/non-traditional status?

Alternative hypothesis 5. There is a significant difference in preferred teaching strategies of baccalaureate degree nursing students based on traditional/non-traditional status.

Null hypothesis 5. There is no significant difference in preferred teaching strategies of baccalaureate degree nursing students based on traditional/non-traditional status.

Research question 6. Is there a significant relationship between the self-identified learning styles and the preferred teaching strategies of baccalaureate degree nursing students?

Alternative hypothesis 6. There is a significant relationship between the self-identified learning styles and the preferred teaching strategies of baccalaureate degree nursing students.

Null hypothesis 6. There is no significant relationship between the self-identified learning styles and the preferred teaching strategies of baccalaureate degree nursing students.

Rationale, Relevance, and Significance

Scholarly research requires the investigation of problems arising from an identifiable gap in existing knowledge. A study of significance must also produce data that will add to the existing body of knowledge on the chosen topic. The basis of this study was founded on the need to support a more student-driven learning environment. The results of this study may help nursing educators create a learning environment that is more attuned to student's learning needs and preferences. The enhanced inclusion of students' preferred teaching strategies can provide greater opportunities for the development of higher order thinking, clinical skill development, and safe bedside practice.

Rationale

In the field of higher education, adult learners maintain the assumption that they are paying for a quality education. Similarly, systems of higher education strive for excellence in the development and preparation of professionals capable of meeting the demands of the chosen workforce (Hassanian, Ahanchian, Ahmadi, Gholizadeh, & Karimi-Moonaghi, 2015). Neuman et al. (2009) explained that teachers and students often have different standards and expectations for what constitutes innovative, high quality teaching and education. The disparity between what is expected and what is delivered often leads to a disconnect between teaching and learning. Additionally, there is a limited existing body of knowledge offering recommendations regarding the best approach for aligning student teaching preferences with didactic teaching strategies. As the nursing profession becomes more complex, nursing educators are tasked with developing cutting-edge teaching strategies to prepare students to meet the challenges of the workforce and the needs of the healthcare community. According to Risling and Ferguson (2013), updating educational practices and educational research is imperative to successfully preparing nursing students to enter the nursing profession as competent practitioners. The results of this study offered nursing educators recommendations for collaboration with students to create progressive and effective learning environments. Data supporting learner driven teaching strategies that promote knowledge and skill acquisition can bridge the gap between student and educator expectations in higher education and nursing education.

Relevance

The production of nursing professionals who are knowledgeable and skilled in the delivery of high quality safe patient care, in a variety of healthcare settings, is the ultimate goal of nursing education programs. The Joint Commission ([TJC], 2015) has established yearly

Patient Safety Goals that all patient care institutions and patient care practitioners, including student nurses, are held to. Nursing educators are tasked to instill in nursing students the non-negotiable nature of patient safety. Alarmingly, Koohestani, and Baghcheghi (2009) found that nursing students are often making at least two errors that have the potential to result in patient harm during their academic careers. Utilizing more effective teaching strategies in the learning environments may enhance the nursing students' critical thinking capacity, reducing mistakes at the bedside during both clinical education and future professional practice. The results of this quantitative study offered nursing educators information to better understand the learning needs of students, allowing them to enhance their teaching methods and strategies. As the learning environment is transformed to meet the needs of students, the development of clinical skills and higher order cognitive abilities are likely to translate into enhanced safety and best practice for novice nurses and improved outcomes for patients.

From the perspective of the profession as a whole, nursing students comprise the future of healthcare. Dr. Hassmiller stated in a report published by the Robert Wood Johnson Foundation ([RWJF], 2014) that although some nurses are delaying their retirement**,** the impending nursing shortage is inevitable and will ultimately have a negative impact on the quality of healthcare in the United States. In order to recruit and retain nursing students to curb the anticipated nursing shortage, nursing educators must create a learning environment that fosters a passion for nursing and a propensity for lifelong learning. Allowing nursing students to have a voice in the curriculum and development of the learning environment will cultivate a shared vision for the objectives of the educational program. The results of the study identified the BSN students' preferred teaching strategies, allowing educators to better utilize the identified methods in current nursing education. If the learning environments in nursing education better

meet the needs of the nursing students, recruitment, retention, and graduation rates may increase. The production of a greater number of high quality nurses will ultimately aid in supplementing the growing nursing shortage.

Significance

The current study offered the scientific community data that can be used to evaluate the constructs of Bloom's taxonomy and the theory of andragogy. Bloom's taxonomy, as applied to nursing education, supported the idea that conceptual knowledge is progressively built upon as students move through a four-year baccalaureate program. Nursing students must first learn basic anatomy and physiology before developing the ability to apply that knowledge to disease processes. The role of the nursing educator is to aid students in the progression through the stages of Bloom's taxonomy and the transformation from student to practitioner (Sandvik, Eriksson, & Hilli, 2014). The research methods of this quantitative study exploring BSN students' preferred teaching strategies produced data that added to the understanding of the nursing students' learning process and ultimately to the application of Bloom's learning domains. The students' teaching preferences, specifically relating to changes between academic years, allowed educators to see the development of the nursing students' learning processes through the stages of Bloom's taxonomy and supported the progressive nature of learning presented by Bloom's taxonomy.

In turn, andragogy highlighted the plight of the adult learner. Knowles et al. (2011) explained that adult learners prefer to see the applicability of their learning and desire to partner with the educator in developing an effective learning environment. One aim of this study was to identify whether or not students prefer teaching strategies with more dynamic real world applicability. Results that indicate students do in fact prefer simulation based learning or case