

Comparing clinical competencies between nursing students with degrees and traditional students

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Nursing students with second degrees have become the focus of great interest in the last two decades in terms of being an answer to the nursing shortage. They are thought to possess greater ability to critically think and engage in self directed learning behaviours, and possess greater motivation to master clinical skills. The purpose of this study is to compare differences in students' perception of clinical competency between BSN students with a baccalaureate degree and BSN students without a previous degree. The sample consisted of 134 undergraduate junior and senior nursing students enrolled in a traditional baccalaureate program in a large metropolitan university. The results yielded statistically significant differences on two of the 36 competency measures. Second degree students indeed are different in maintaining client confidentiality and developing appropriate, prioritised nursing diagnosis. Therefore, this study supports that second degree nursing students have greater clinical competency in professional behaviours of client confidentiality and critical thinking with nursing diagnosis. Interestingly, the study did not support second degree students as superior in mastering 17 basic nursing clinical skills.

Nursing students with first degrees in another discipline have become the focus of great interest in the last two decades as an answer to the nursing shortage. As a result, Accelerated Bachelor of Science in Nursing (BSN) programs gained momentum across the nation and in 2006 the American Association of Colleges of Nursing (AACN) reported a total of 191 accelerated baccalaureate programs with numerous programs in development (AACN, 2006).

The impetus behind this surge in accelerated programs is the belief that students undertaking second degrees are more mature; goal oriented, and have greater capacity for critical thinking and learning. They are considered to have already demonstrated intellectual and academic capacity and have obtained a sound knowledge base of the arts and humanities (AACN, 2006; Shiber, 2003; Seldomridge & DiBartolo, 2005).

The minimal anecdotal literature that exists regarding second-degree students suggests that these students enter nursing education as adult learners with rich background experiences, greater ability to critically think, self directed learning behaviours, and possess greater motivation to master clinical skills. The literature also supports second degree students as adult learners who possess greater maturity, motivation, and engagement for learning (AACN, 2006; Shiber, 2003). Furthermore, second-degree students are thought to more aggressively pursue evidence-based clinical problem solving in the educational process (Vinal & Whitman, 1994; Renaud & Miller, 2003; Shiber, 2003).

In light of the tremendous increase in accelerated nursing programs with graduate students targeted for enrollment, there remains very little empirical evidence that pertains to accelerated program outcomes or second degree student outcomes regarding clinical competency or effective clinical practice. Interestingly, the preponderance of published studies and anecdotal literature that does exist pertains mainly to nursing education. The discipline of nursing certainly has captured the population of students with previous baccalaureate degrees in other fields as viable sources to enhance the profession and alleviate the shortage of professionals worldwide.

In order to empirically validate the unique differences of second degree students, the current study seeks to explore clinical outcomes and competency measures regarding second degree students. The study is conducted within a traditional baccalaureate nursing curriculum and seeks to determine the differences in clinical competency characteristics between students with a previous baccalaureate degree and those without a previous degree. This research is important because of the sheer lack of empirical evidence regarding the propensity of second-degree students being suitable for accelerated second degree programs and for determining if they truly possess enhanced clinical competency skills.

Cangelosa and Whitt (2005) also concluded that limited research has been conducted into second degree students' outcomes. The authors state that the majority of existing research only includes state board examination pass rates, employer satisfaction, job positions, and second degree curriculum development. There is little to no research available on the efficacy of second degree programs, student outcomes, or clinical competencies. Therefore, determining if second degree nursing students differ from their traditional counterparts in terms of clinical competency is important.

The purpose of this exploratory study is to compare differences in students' perception of clinical competency between BSN students with a previous baccalaureate degree and BSN students without a previous degree. This comparison includes differences such as intrinsic motivation, self-efficacy, and confidence that are self-reported, as well as clinical competency measures of basic nursing care.

Literature review

Clinical competency

Extensive nursing literature exists regarding the difficulty of defining or describing clinical competency and has resulted in a plethora of assessment tools with little empirical evidence to support the competency based approach to nursing education (Dolan, 2003; Ramritu & Barnard, 2001; Lofmark, Smide, & Wikbald, 2006). This difficulty provides a major challenge for nursing education to continue to pursue methods of measuring clinical competencies for all nursing students. This is particularly important for accelerated second degree programs that embrace second degree students as more qualified or more adaptable to fast-track curricula. This creates the need to provide empirical evidence of

efficacy and competence in second degree student and program outcomes in order to establish credibility for this. This evidence may provide further insight regarding what other student populations may be suitable for accelerated nursing curricula or accelerated curriculums in other health care disciplines. The following section represents significant research to date regarding second degree students.

Second degree students

Vinal and Whitman (1994) addressed teaching methodologies for second degree baccalaureate students. The authors reported that second degree students possess a significantly greater desire for clinical competence than traditional baccalaureate students. Further, they concluded that second degree students devote extensive preparation time to obtaining clinical competency and focusing on essential elements of practice.

Seldomridge and DiBartolo (2005) conducted a study with 71 accelerated second degree BSN students to determine how they differed from traditional baccalaureate students in demographic and academic characteristics. The results of the study indicated no statistical differences between the two groups. The second degree students had only slightly higher licensure pass rates, grade point average at graduation, and higher standardised course and curricular test sources. The authors did not address clinical competency measures of the subjects. However, the study supports the theory that second degree students generally perform better academically than traditional baccalaureate students (Seldomridge & DiBartolo, 2005).

There has been no research published to date regarding clinical competency measures for second degree students in nursing, either in the academic or work place setting. The same barriers for accurately measuring clinical competence for nursing in general may have a role in why this has occurred. The following study represents some of the difficulty in obtaining competency assessments of new graduates and has implications for the current study.

Lofmark, Smide & Wikblad (2006) studied perceptions of clinical competence of new graduate nurses both from the experienced nurses and nursing graduates' perspectives. The study was conducted in Sweden with 106 nursing students from a variety of academic programs and 136 registered nurses with more than 5 years experience. Each subject completed a questionnaire to determine competence defined as learning outcomes and the ability to perform nursing care of the new graduate nurse. The results of the study indicated that new graduate nurses had statistically significant stronger ratings of their competence and clinical abilities than the experienced nurses had of the new graduate nurse's competence and clinical abilities. This study did not include specific measures of clinical competence in nursing care, only perceptions of competence. However, the findings are important in terms of understanding students' ability to accurately measure or gauge their own clinical competency (Lofmark, Smide & Wikblad, 2006). The following study attempted to explore this concept.

Ramritu and Barnard (2001) conducted a phenomenography study in Australia to describe new nurse graduates' conception and understanding of clinical competence. Six new nurse graduates were interviewed for the study and were asked to describe and draw what they perceived to be competence in eight competency domains. These domains included safe practice, limited independence, utilisation of resources, time management and workload, ethical practice, clinical skills, knowledge, and evolving. The findings of the study yielded a distinction between competences in capability as a different entity from competency in performance. Capability competence is considered a forerunner for performance competency in clinical settings. Therefore, new graduates have greater competence capacity and performance if they have on-going, supportive educational experiences through the transition from student to clinician (Ramritu & Barnard, 2001).

In a similar study in Iran, Memarian, Salsali, Vanaki, Ahmadi, & Hajizadeh (2007), conducted grounded theory research to determine factors of professional ethics in clinical competency for nursing. The researchers conducted semi-structured interviews with 36 nurses from a variety of settings to determine internal and external factors that enable nurses to competently practice. The results of the study indicated that personal factors such as knowledge and skills, ethical conduct, professional commitment, and self respect and respect for others were a dominate theme for clinical competence. Work experiences as internal factors essential for clinical competence included effective work relationships, interest in the profession, responsibility and accountability to clients and to the profession. Professional and environmental external factors also influence clinical competency. These factors included effective management of the emotional and psychological atmosphere and structure and support within the work environment.

Essentially, with no research to date regarding second degree students and clinical competency measures, the current study is one of the first to attempt to compare and contrast perceptions of clinical competence regarding basic nursing care measures between students undertaking a second degree and those without a previous degree. Furthermore, this study seeks to identify unique differences in second degree students that would support the idea that they are more goal-directed, better critical thinkers, and able to expeditiously learn and enter nursing practice. Empirical evidence of second degree students' enhanced clinical competence would lend substantial credibility and support for targeting these students for accelerated programs in nursing as well as other health care fields.

Methods

Sample

The sample consisted of 200 undergraduate junior and senior baccalaureate nursing students enrolled in a traditional program in a large metropolitan university in a southern state of the USA. The majority of the sample was in the 19 to 24 year old age group with 102 subjects (75.56%), and 33 (24.44%) were older than 25 years of age.

There was a total of 53 second degree subjects with 15 types of educational degrees represented. The majority of subjects ($n = 17$) held biology degrees, with eight subjects noting generic baccalaureate degrees and eight noting psychology degrees. The following table depicts the number of second degree students and the type of degree held.

Table 1: Previous baccalaureate degrees of students

Baccalaureate degree major	No of subjects
Animal Science	1
Biology	17
Baccalaureate (not identified)	14
Business Administration	1
Clinical Laboratory Sciences/Medical Technology	3
Diet and Nutrition	3
Exercise Medicine	2
Hospital Administration	1
Kinesiology	1
Marketing	1
Medical Technology	2
Psychology	8
Sociology	1
TOTAL	53

Procedure

After obtaining the Institutional Review Board (IRB) approval, faculty distributed the Student Perception of Clinical Competency Scale (SPCC) to junior and senior students during a class period at the end of the spring semester. This allowed subjects to have completed all clinical activities for the semester. There was no identifying information on the tool and subjects were assured that faculty had no knowledge of individual results. A secretary, unaffiliated with the research or course work, collected the scales.

Instrument

The Student Perception of Clinical Competence Scale (SPCC) was developed from the Self-Efficacy for Clinical Evaluation Scale (SECS, developed by Clark and Tholcken, 2004). The SECS was designed to include pairing of students' self-efficacy with the perceived importance of basic nursing skills. The scale was constructed with two parallel sections: (a) a self-efficacy subscale, relating theoretical and motor-skill competency capability and (b) a perceived importance subscale measuring internal values and motivation regarding importance of knowing and performing basic nursing skills. For the current study, the SPCC tool was modified to include course objectives and clinical evaluation measures for the *Fundamentals of Nursing* course offered in the second semester of the BSN program. Faculty members served as content experts and developed the scale incorporating clinical skills that were a component of key laboratory check off

requirements and expectations of clinical performance. The 36 Likert-type items were developed and Clark and Tholcken (2004) made recommendations for the modified tool and gave permission for use.

Pilot data for the SPCC were collected from 50 graduate students during the final course evaluation for the fall semester. Inter-item correlations were completed including item means, variances, and correlations. No items were eliminated and five items were revised to enhance clarity. All 36 inter-item correlations were less than .50 indicating ease and clarity of the instrument to be read, understood, and completed.

Content validity was obtained from five clinical faculty, three participating in the course, who evaluated each of the SPCC items for relevance and congruence. These items were related to the course and clinical objectives for the *Fundamentals of Nursing* course.

Data analysis

Descriptive statistics were used to analyse the scores obtained on the Likert Scale. Frequency counts, percentages, means and standards deviations were computed. Contingency Tables were utilised to compare the students with a baccalaureate degree and those without a degree in addition to Paired Samples Tests.

Cronbach's Alpha was used to estimate the internal consistency of the self-efficacy and perceived importance scales and was determined to be .98. This demonstrated significant internal consistency for the instrument as compared to the recommended .70 for new tools as defined by Nunnally and Bernstein (1994). Construct validity of the Likert-type scale was established with item-to-item correlations coefficients with each item meeting the criteria of 50% of inter-item correlations falling between .30 and .90.

Inferential statistics were applied to the demographic variables and cross tabs for the demographic data were applied to the two sub-scales independently. Pearson Product Correlation procedures were applied to the 36 paired variables representing the two scales. The Pearson correlation is one of the more widely used correlation coefficients that measure the linear relationships between two sets of measurements (Burns & Grove, 2007).

Results

One hundred and thirty four (134) subjects completed the questionnaire. Eighty one subjects (60%) were traditional BSN students and 53 (40%) were second degree students.

Differences in second degree versus traditional BSN students

Descriptive summary measures and Paired Samples Test analysis indicated statistically significant differences between the two groups on two items of clinical competency. Second degree BSN students indicated significantly higher perceived competency ($p = 0.0001$) in maintaining client confidentiality than traditional BSN students. Pearson

correlations indicate significant positive relationships ($r = 0.39$) between students' confidence in their ability to perform client confidentiality and their perceived importance of client confidentiality. There were statistically significant correlations regarding second degree students' maintenance of client confidentiality as a predictive correlation with importance of maintaining confidentiality. Table 2 depicts the results of the T-Test analysis.

Table 2: Client confidentiality

Maintains client confidentiality	$r = .392$	$p = .0001$
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There was also a statistically significant difference between second degree students and traditional BSN students in developing prioritised nursing diagnosis. Second degree students indicated greater competency ($p = 0.0036$) in developing appropriate, prioritised nursing diagnosis than the traditional BSN students. Pearson correlations also indicated positive relationships ($r = 0.25$) between confidence in performance and perceived importance of establishing priority nursing diagnosis. Table 3 depicts the results of the T-Test analysis.

Table 3: Develops appropriate, prioritised nursing diagnosis

Develops appropriate, prioritised nursing diagnosis	$r = .25$	$p = .0036$
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Interestingly, the difference between second degree students and traditional BSN students for the remaining 34 competency items was not determined to be statistically significant. The remaining competency measurements include seventeen basic nursing skills, as well as 17 professional parameters of basic nursing practice. (See Appendix).

Discussion

All subjects in the study had completed an introductory, fundamentals clinical nursing course that served as the basis for the questionnaire items of clinical competency. Second degree students identified greater competency and confidence in two basic nursing care parameters which included maintaining patient confidentiality and developing prioritised nursing diagnosis. This enhanced perceived competency was evident regardless of the age of the subject or the level of nursing educational obtainment (junior vs. senior level) of the student.

The results of the study indicate that second degree students place greater importance upon and have greater capacity to act in the protection of clients' health care information. The manifestation of this dynamic principle of ethical nursing practice may indeed be the direct result of second degree students' maturity and life experiences. Memarian et al. (2007) supports the findings in this study. The authors stated that personal and

environmental factors enhance clinical competency because these individuals are “responsible and committed to their work” (p.381). The authors further defined personal factors of clinical competency to include “knowledge and skill, and ethical conduct; and self respect and respect for others” (p. 384). Second degree students in this study certainly reflected enhanced competency in client confidentiality as a result of personal factors.

Second degree students also indicated a greater ability to prioritise nursing diagnosis. This enhanced ability to think through numerous diagnostic clusters of assessment data and organise client care by priority certainly reflects a greater capacity to logically, purposefully, and critically think. Second degree students also indicated greater importance for prioritising nursing diagnosis reflecting a greater capacity for clinical reasoning skills utilising intuition and logic.

These findings support the literature regarding second degree students as adult learners who possess greater maturity and who pursue evidence based clinical problem solving in the educational process (AACN 2006; Renaud & Miller, 2003; Shiber, 2003). These findings support the evidence that second degree students perceive greater clinical competence than traditional BSN students regarding evidenced based clinical problem solving in their ability to develop and prioritise nursing diagnoses (Vinal & Whitman, 1994).

While the study supported second degree students having a greater capacity in clinical competency with two basic care measures, it was equally interesting to note the other 34 measures that did not yield significant differences between the two groups. In fact, the most unexpected paradoxical finding of the study indicates that second degree nursing students in their senior year of nursing education, regardless of age, and who had completed a 136 hour clinical summer externship experience, did not have greater measures of clinical competency in the 17 basic nursing skills competencies. This finding was most surprising in that increasing clinical competency with repeated clinical practice and exposure was expected. In this study, the additional hours of focused clinical experiences or an additional year of clinical nursing education did not enhance students’ perceptions of their clinical competency. This finding certainly indicated an area for future study as well as providing an opportunity for future study with other student populations and curricula.

Conclusion

Second degree students indeed are different in clinical competency measures of maintaining client confidentiality and critical thinking regarding prioritising nursing diagnosis in the application of the nursing process to client care. However, second degree students did not prove to have greater confidence or competence in the provision of 17 basic nursing care areas. The assumption that students undertaking second degrees have greater capacity to master clinical skills was not supported by this study. Second degree students in fact were no different than their traditional counterparts in 34 measures of basic nursing knowledge and skill competency.

The current study supports the literature citing second degree students as more aggressively pursuing evidence based clinical problem solving as shown by their ability to develop prioritised nursing diagnosis in the application of the nursing process (Renaud & Miller, 2003). Additionally, the ability of second degree students to comply with patient confidentiality measures also speaks of greater maturity, motivation, and critical thinking in professional behaviours.

Second degree nursing students indeed possess significant clinical competency differences from their traditional counterparts regardless of age range, years of nursing education, or clinical experiences. The most meaningful difference lies within the second degree students' ability to analyse and enact the nursing process in the provision of care through prioritised nursing diagnosis. This study demonstrates that BSN students undertaking second baccalaureate degrees are certainly no worse in 34 parameters of nursing care and significantly better in two of these domains. Therefore, as trends for accelerated nursing programs continues to grow, the efficacy of admitting students into second degrees because they are considered superior candidates for such a program, at least for now, has merit.

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Appendix

Student perception of clinical competence

Instructions: Rate your clinical performance in the following areas. If you have not had an opportunity to perform the tasks then indicate with NA.

1 2 3 4

 Never Sometimes Always

1 2 3 4

 Never Sometimes Always

Rate your level of confidence in performance

Rate how important you think each behaviour is in nursing practice

1	2	3	4	A. Demonstrates responsibility/accountability for client care	1	2	3	4
1	2	3	4	B. Maintains client confidentiality	1	2	3	4
1	2	3	4	C. Adheres to ethical practice standards and codes	1	2	3	4
1	2	3	4	D. Maintains professional demeanor	1	2	3	4
1	2	3	4	E. Uses good time management skills in regard to all aspects of client care.	1	2	3	4
1	2	3	4	F. Demonstrates beginning critical thinking skills in the delivery of safe and effective nursing care.	1	2	3	4
1	2	3	4	G. Takes the learning initiative; seeks opportunities for learning.	1	2	3	4
1	2	3	4	H. Demonstrates basic therapeutic communication skills with staff/clients/family/peers.	1	2	3	4
1	2	3	4	I. Relating patient care issues to Physician/Nurse Practitioner	1	2	3	4
1	2	3	4	J. Documents accurately, objectively, legibly. Uses medical terminology.	1	2	3	4
1	2	3	4	K. Spontaneously offers patient teaching	1	2	3	4
1	2	3	4	L. Completes a nursing assessment that includes a review of systems.	1	2	3	4
1	2	3	4	M. Completes a health history	1	2	3	4
1	2	3	4	N. Relates assessment information to client's disease process.	1	2	3	4
1	2	3	4	O. Develops appropriate, prioritised nursing diagnosis.	1	2	3	4

