Comparing the Academic Performance of Students in Traditional and Second-Degree Baccalaueate Programs

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ABSTRACT

Programs offering accelerated baccalaureate (BSN) curricula to students with bachelor’s degrees in other fields are growing in popularity. Such students’ academic ability may differ from that of students pursuing the BSN as their first degree, due to academic maturity, greater confidence, and polished study skills. This study directly compared accelerated second-degree BSN and traditional BSN students under controlled conditions matched for identical instruction and performance measures. Outcomes analyzed included class test scores, nationally standardized examination scores, skills laboratory performance, and final course grades. Age, as a possible factor of any such differences, was also analyzed. The accelerated students performed significantly higher on every measure than did the students in the traditional program. Age was not found to be predictive of success in either group. Recommendations include modification of teaching strategies to accommodate accelerated students capable of higher performance.

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Literature Review

When making a side-by-side comparison, the accelerated student body appears to be different than the traditional student body. Nursing remains a predominately female profession, but a larger proportion of male students are enrolled in accelerated nursing programs (Toth, Dobratz, & Boni, 1998). Students who enroll in accelerated nursing programs tend to be older than traditional nursing students. The reported mean age of the students enrolled in accelerated nursing programs ranges from 28 to 40 (Feldman & Jordet, 1989; Howard-Ruben, 2002; Toth et al., 1998; Wu & Connelly, 1992), although increased age was not a finding reported by Youseef and Goodrich (1996). Therefore, any comparative analysis of traditional bachelor of science in nursing (TBSN) students and accelerated bachelor’s degree-to-bachelor of science in nursing (BBSN) students must consider whether age is also correlated with academic success.

A reportedly consistent characteristic of BBSN students is their high performance in the classroom and their academic maturity. They are motivated individuals actively engaged in the learning process (Cangelosi & Whitt, 2005). These students bring with them a wealth of knowledge and life experiences that enhance their learning experience (Feldman & Jordet, 1989). They have proven to be quality students and add to the nursing classroom a depth of knowledge from other disciplines (Korvick & Williamson, 2006; Rodgers, Burson, & Kirschling, 2004).

A foundation in biological sciences is fundamental in nursing. Seldomridge and DiBartolo (2004) suggested that schools consider the grade point average (GPA) in science courses, rather than overall GPA, for admission to the nursing program and to improve NCLEX-RN® success. The minimum GPA of those admitted to a BBSN program is variable on the basis of schools’ admission criteria. Some BBSN programs require a higher admission GPA than do TBSN programs (Feldman & Jordet, 1989; Rodgers et al., 2004; Vinal & Whitman, 1994), whereas others require the same preadmission GPA for both BBSN and TBSN students (McDonald, 1995).
Few published studies identify the quantifiable characteristics of students who attend BBSN programs. One common and universal standard of a nursing program’s performance is unquestionably the NCLEX-RN pass rate. BBSN graduates tend to have higher than average NCLEX-RN pass rates (Feldman & Jordeit, 1989; McDonald, 1995; Seldombridge & DiBartolo, 2005; Shiber, 2003; Vinal & Whitman, 1994). What have not been consistently reported in the literature are the indicators of higher academic performance of students in accelerated BBSN nursing programs, in direct side-by-side comparison with TBSN students under similarly controlled conditions.

Therefore, this study was developed to test the following hypotheses:

- BBSN students enrolled in accelerated nursing programs perform better academically than do TBSN students.
- Older nursing students perform better academically than do younger students, regardless of whether they are enrolled in a TBSN or BBSN program.

Definition of Terms

- An accelerated nursing program is defined as a BSN program that can be completed in 12 to 18 months after completion of prerequisite courses.
- TBSN students are students who do not have a previous bachelor’s degree.
- BBSN students are students with a bachelor’s degree in a non-nursing field who are enrolled in an accelerated nursing program.
- Academic maturity is ascribed to students who have completed baccalaureate degrees, thereby demonstrating the ability to apply themselves successfully to academic pursuit.
- Academic performance is the measurable outcome of scholastic achievement, shown through test scores, total course points earned, and GPA.

Method

The design selected for this study was a retrospective, quasi-experimental research design. The setting was a school of nursing at a medium-sized private university located in an urban area in the heartland of the United States. The study was approved by the university’s institutional review board, and, to protect students’ anonymity, no identifying information was used. Data collected were restricted to assessment information required for standard performance analysis.

The sample for the study included 32 TBSN students and 29 BBSN students enrolled in different sections of the same beginning-level course during the same semester. Of the BBSN cohort, 76% (n = 22) were female and 24% (n = 7) were male, with a mean age of 31. Of the TBSN students, 87% (n = 28) were female and 13% (n = 4) were male, with a mean age of 29.

The difference in the mean age of the student groups was not statistically significant (t = 0.19, p = 0.18). The percentage of international students was similar in both groups: 17% (n = 5) in the BBSN group, and 18% (n = 6) in the TBSN group. All of the international students spoke English as a second language except for one BBSN student.

Both groups had a minimum GPA of 3.0 and a Test of English as a Foreign Language score of at least 550 if English was not the first language. Other than the requirement of a previous bachelor’s degree for BBSN students, the admission criteria for the students admitted into both programs were identical with one exception: BBSN students needed at least a grade of “B” in the prerequisite science courses (to promote student success related to the rigor of the accelerated nursing program), whereas some TBSN students had grades of “C” in the required science classes.

Students in both groups of the beginning-level course were introduced to the nursing process, were exposed to basic nursing skills, and began giving basic patient care. Both sections were taught by the same nursing faculty, used the same syllabus, had equal access to the same resources, and received the same examinations throughout the semester. The BBSN and TBSN students did not commingle in their theory, laboratory, or clinical activities.

The student’s performance was measured using multiple criteria. The faculty developed five examinations that were delivered throughout the semester. They also observed laboratory skills and administered quizzes that were reflective of laboratory skills. Two nationally normed examinations developed by Educational Resources, Inc., were administered. The summative measure was the total points earned for the semester, which also included clinical application scores.

Results

A comparison of the mean and standard deviations for each examination was completed between the two groups. The range of total points achieved for the semester was 842 to 977 of 1,000 points for the BBSN group and 788 to 928 of 1,000 points for the TBSN group. The mean scores of the BBSN group exceeded the mean scores of the TBSN group on all of the performance measures evaluated. The t value for each examination mean was consistently significant; the lowest t value was 2.32 (p < 0.05).

Age of the students did not correlate strongly to the number of points achieved for the semester by BBSN students (r = –0.08) or TBSN students (r = 0.19). Overall, the age for all students correlated poorly to total points earned (r = 0.012, p = 0.16).

The mean GPA (on a 4.0 scale) for the prerequisite science courses was 3.4 for the BBSN students and 3.0 for the TBSN students (t = 3.2, p = 0.001). Students’ total points for the semester were compared with their GPAs from the prerequisite science courses. For the BBSN group, total points for the semester did not correlate with the science course GPAs (r = 0.07, p = 0.35). However, total points for the semester were moderately correlated with the science course GPAs of the TBSN group (r = 0.51, p = 0.001).

To further compare the performance of like groups, the averages of the total points earned for the se-
mester were compared at an additional level: The TBSN students with a grade of B or better in their science courses were isolated from the total TBSN group, and then the average of total points of this B-or-better TBSN group was compared with the average total points of the BBSN group. The findings of the additional comparison were compelling. The select TBSN students' average total points were 86% (SD = 3.7). The BBSN students' average total points were 91% (SD = 3.1). The t-test value (4.95, p < 0.05) was significant.

Discussion

The first hypothesis was supported by the study's findings. BBSN students enrolled in an accelerated nursing program did indeed perform academically stronger than did TBSN students enrolled during the same semester. The second hypothesis for this study was rejected. Age was not associated with academic performance in either group or overall. Performance in prerequisite science courses and academic maturity were identified as possible predictors of success in a nursing program.

The two groups shared similar characteristics, with the exception of academic performance. As prenursing students, the BBSN group had higher science course GPAs. On admission into the program, the same trend continued and the BBSN students scored significantly higher in the areas measured. Too little variability in the BBSN group's science grades and total points for the semester resulted in no correlation, but there was a moderate correlation for the TBSN group. To decrease attrition and improve student satisfaction and success, nursing schools developing BBSN programs may want to consider adopting a minimal performance standard for prerequisite science courses as an admission criterion.

When the semester's total points were compared with those of the like nursing student group, the findings were significant for a difference in overall performance. The BBSN students demonstrated academic maturity from the beginning of the program and continued high-level performance throughout the semester. This result is consistent with having prior academic experience and achieving a first bachelor's degree, whereas the TBSN students had not yet demonstrated that they could be successful in a university setting. BBSN students may have confidence that comes from prior academic success, which they are able to transfer to nursing courses.

Another consideration for nursing faculty is the modification of teaching strategies to more effectively suit academically mature learners. BBSN students have experiences and a breadth of education that TBSN students do not have. Faculty can incorporate these experiences into the classroom and clinical education to broaden the richness of the learning process.

In this study, BBSN students were considered as a separate cohort from TBSN students, with different abilities and motivations. Other institutions may consider comingling the cohorts, as both groups could learn from each other. Further research is needed to determine the best classroom approach for BBSN students. Nursing faculty need to rise to the opportunities presented by this cohort and consider challenging them to become a new breed of leaders in the nursing profession. Traditional teaching methods may not adequately stimulate this group of students.

Conclusion

The findings of this study reflect a small group of students during the course of one semester. Although the study is small, the findings were significant for the group and may be generalized for similar groups. Further research should examine other quantifiable variables that would help explain the characteristics of students who are returning to school to start a new career in nursing. In addition, studies examining the value of particular teaching strategies and how they can be adapted for academically mature students would promote more effective and efficient methods for use in accelerated curricula.

References


