

## **A Comparison of Program Characteristics Between Traditional BSN and RN to BSN Programs in Pennsylvania**

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### **Abstract**

Several educational programs prepare students to become licensed as registered nurses (RNs), including associate degree (AD), diploma, and Bachelor of Science Nursing (BSN) programs. Two types of programs culminate in a BSN, namely the programs that are designed for individuals who are not yet licensed RNs, and the RN to BSN (RN-BSN) programs that are designed for licensed RNs to earn the BSN. Hospitals that employ a higher proportion of BSN prepared nurses in direct care are known to achieve better patient outcomes than hospitals with a lower proportion of BSNs. However, whether the path to earning a BSN (traditional or RN-BSN) matters is unknown. While some differences between traditional and RN-BSN programs are well-recognized, such as the duration of the programs, collegiate settings, typical age of students, and previous exposure to clinical practice, there may be additional differences between traditional and RN-BSN programs. Therefore, the aim of this paper was to compare program characteristics that may differ between traditional BSN and RN-BSN programs. A better understanding of the return on investment for pursuing a BSN in the traditional versus the RN-BSN pathway will allow prospective students to make informed decisions about their educational paths and to guide the hiring practices of employers.

**Keywords:** Characteristics, BSN, RN-BSN Programs

### **1. Introduction**

There are three educational paths to become a registered nurse: a diploma program typically administered by a hospital; an associate degree (AD) program frequently offered at community colleges; and a traditional BSN offered at four-year universities or colleges. Graduates of any of these nursing programs are eligible for the NCLEX-RN® licensing examination.

The American Association of Colleges of Nursing<sup>1</sup> has endorsed the BSN as the minimum educational requirement for professional nursing practice. The National Advisory Council on Nurse Education and Practice<sup>2</sup> asserts that the increasing complexity of practice for registered nurses (RN) not only requires critical thinking and problem solving skills, but also a sound foundation in science, which includes knowledge of behavioral, social, and management sciences and the ability to analyze and communicate data. Educational objectives of BSN programs include these attributes. In 2010, the Institute of Medicine<sup>3</sup> called for an 80% increase in BSN prepared nurses to meet increasing healthcare demands.

As a result of the call for baccalaureate preparation, RN-BSN programs have developed to support diploma and AD nursing graduates to continue their formal education. An encouraging summary from the American Association of Colleges in Nursing (AACN) reports an increasing number of registered nurses enrolling in RN-BSN degree

completion programs every year for the last 9 years reflecting a 288% increase during this time period<sup>4</sup>. However, whether the path to earning a BSN (traditional or RN-BSN) matters is unknown.

The additional baccalaureate curriculum courses build upon a nurse's professional development toward a more comprehensive scope of practice and improved understanding of patient-specific cultural, political, economic, and social issues to impact health care delivery.<sup>4</sup> The Robert Wood Johnson Foundation<sup>5</sup> outlined the benefits of nurses progressing in their formal education for: 1) patients reaping the rewards of evidence-based practice, quality improvement data analysis, and systematic application of tools and methods to improve performance, 2) employers recognizing improved patient care, increased productivity, enhanced reputation, and ultimately, a healthier bottom line and, 3) nurses reporting improved knowledge, skills, competency ratings, and career growth leading to improved job satisfaction.

Of particular note, hospitals, as major employers of RNs, have been attempting to increase the number of BSN prepared nurses within their respective organizations based upon the aforementioned landmark reports<sup>3,4</sup> linking higher nursing education levels to better patient outcomes. This effort has been reinforced by the multiple studies reporting that hospitals employing a higher proportion of BSN-prepared nurses in direct patient care report better patient outcomes.<sup>6,7,8,9,10</sup> There is a growing body of evidence indicating that care provided by BSN-prepared nurses leads to fewer adverse events for patients. In a landmark 2003 study, Aiken et al.<sup>8</sup> demonstrated a statistically significant relationship between the proportion of BSNs and mortality and failure to rescue. Every 10% increase in the proportion of BSN nurses in direct care was associated with a 4% decrease in risk of death, which was validated in an additional study<sup>8</sup>. Patient outcomes such as, lower mortality rates, lower nosocomial infections, improved quality of care and patient satisfaction, were found when care was provided by BSN nurses who obtained certification.<sup>9,11</sup> Investing in human capital, including nursing resources, is known to reduce harm and improve patient outcomes, particularly in emergency situations like cardiac arrest.<sup>12</sup>

What is clear from reports and position statements is that nursing has a pivotal role in delivering expert healthcare to promote better patient outcomes. Nursing leaders, healthcare managers, and policymakers recognize that education of RNs at the BSN level is at the core, yet little is known about differences that may exist between the types of programs that culminate in a BSN. A better understanding of the differences between traditional and RN-BSN programs is needed to assist prospective students to make informed decisions about their educational paths and to guide the hiring practices of employers. Therefore, the purpose of this paper was to compare program characteristics, such as the accrediting bodies, pre-requisites and criteria for admission, the curricula and mode for delivering course content, educational preparation of the faculty, number of didactic and clinical hours, and rates for admission, retention and graduation between traditional BSN and RN-BSN programs.

## **2. Methodology**

This is a descriptive study of all RN preparation programs in PA. An online search was conducted to identify all programs active between September 2015 and May 2016. The list of nursing programs was compiled using several corroborating sources including: 1) The Pennsylvania State Board website to identify approved nursing education programs, which were last reported on March 12, 2015; 2) the Commission on Collegiate Nursing Education's (CCNE) list of accredited baccalaureate nursing programs; 3) the Accreditation Commission for Education in Nursing's (ACEN) lists of associate, diploma, and baccalaureate nursing programs; and 4) the list of nursing programs in PA from the 2014 report on NCLEX-RN Performance passing rates. Additional nursing programs were found via Google Maps using the search term "nursing schools in PA". Only programs of schools actively admitting new students were included in this study. In order to collect the data for this study, every school website was manually browsed and scanned for its textual content by three research assistants (one graduate student and two undergraduate students). Data collected from the websites included the following characteristics: the type of accreditation (CCNE, ACEN or both), mode for program delivery (on-site, online or hybrid), tuition, pre-requisites and criteria for admission, educational preparation of the faculty, the curricula, the number of didactic and clinical hours, and rates for admission, retention, graduation and NCLEX-RN performance. Because some programs did not report all characteristics, the results section includes the number of programs with data that were available for each characteristic

### 3. Data

Our search revealed 86 nursing schools located in PA offering 145 RN preparation programs that met our criteria. Two diploma and two associate degree programs that planned to close between 2013 and 2016 were excluded from the analysis bringing the final sample to 141 programs. Of these 141 programs, 42 were traditional BSN programs and 39 were RN-BSN programs; the balance was either AD, diploma or second-degree programs.

Accreditation (see Table 1): The type of accreditation was comparable between BSN and RN-BSN programs with nearly two-thirds of all programs accredited by CCNE.

Table 1. Differences in Accreditation By Program Type, n (%)

Accreditation	Traditional BSN Programs (n=42)	RN-BSN Programs (n=39)
Programs Not accreditation	2(4.8)	2(5.1)
CCNE*	28(66.7)	24(61.6)
ACEN**	10(23.8)	11(28.2)
CCNE and ACEN	2(4.8)	2(5.1)

\*CCNE (American Association of Colleges of Nursing)

\*\*ACEN (Accreditation Commission for Education in Nursing)

Delivery mode (see Table 2): Two percent of traditional BSN and 23% of RN-BSN programs were offered exclusively on-line. Nearly 20% of traditional BSN and RN-BSN programs offered a combination of on-line and on-site courses. A higher percentage of traditional BSN programs were offered exclusively onsite (62%) compared to RN-BSN Programs (41%). Data regarding delivery mode were missing for 14% (Traditional BSN) and 12.8% (RN-BSN) of the programs.

Table 2. Differences in Delivery Mode (On-Site v. On-Line) By Program Type, n (%)

Mode of Delivery	Traditional BSN (n=42)	RN-BSN (n=39)
On-Site	26(61.9)	16(41.0)
On-Line	1(2.4)	9(23.1)
Hybrid	9(21.4)	9(23.1)
Missing	6(14.3)	5(12.8)

Pre-requisite requirements (see Table 3): Nearly 60% of traditional BSN programs required science, algebra, and English. Nearly 50% of traditional BSN programs required social studies and a foreign language. Fewer RN-BSN programs (36%) required Science, Algebra, English, and Social Studies. Even fewer RN-BSN programs (23%) required a foreign language. Only 25% of schools reported the minimal acceptable grade for pre-requisite courses. A third of traditional BSN programs were missing data for the pre-requisites of Science, Algebra, English, Social Studies, and a foreign language, compared to 62% of RN-BSN programs.

Table 3. Differences in Prerequisite Courses by Program Type, n (%)

<b>Prerequisite Courses</b>		<b>Traditional BSN (n=42)</b>	<b>RN-BSN (n=39)</b>
<b>Science</b>	Yes	25(59.5)	14(35.9)
	No	3(7.2)	1(2.6)
	Missing	14(33.3)	24(61.5)
<b>Algebra</b>	Yes	24(57.2)	14(35.9)
	No	4(9.5)	1(2.6)
	Missing	14(33.3)	24(61.5)
<b>English</b>	Yes	23(54.8)	14(35.9)
	No	5(11.9)	1(2.6)
	Missing	14(33.3)	24(61.5)
<b>Social Studies</b>	Yes	21(50.0)	12(30.8)
	No	7(17.7)	3(7.7)
	Missing	14(33.3)	24(61.5)
<b>2<sup>nd</sup> Language</b>	Yes	20(47.6)	9(23.1)
	No	8(19.1)	6(15.4)
	Missing	14(33.3)	24(61.5)

Admission Requirements (see Table 4): BSN programs were more likely to set thresholds for high school GPA for admission (90%) compared to (71%) of RN-BSN programs. Of programs that required certain GPAs, 33.3% of BSN programs required a higher GPA ( $\geq 3.0$ ) compared to 18.0% of RN-BSN programs required a higher GPA ( $\geq 3.0$ ). BSN programs required standardized testing (ACT, SAT, or both) more frequently (71.4%) than RN-BSN programs (38.5%).

Table 4. Differences in High School GPA Scores for Admission by Program Type, n (%)

<b>GPA</b>	<b>Traditional BSN (n=42)</b>	<b>RN- BSN (n=39)</b>
< 3.0	8(19.0)	11(28.2)
$\geq 3.0$	14(33.3)	7(18.0)
Missing n	20(47.7)	21(53.8)

Preparation of Faculty (see Table 5): There were minimal differences in the educational preparation of faculty between program types. Traditional BSN programs had a total mean faculty of 37 and RN-BSN programs had a total mean faculty of 35. Missing data regarding faculty preparation for traditional BSN programs were 23.8% and 17.9% for RN-BSN programs.

Table 5. Differences in Faculty Educational Preparation by Program Type, (Mean±SD)

<b>Number of faculty</b>		<b>Traditional BSN (n=42)</b>	<b>RN to BSN (n=39)</b>
<b>Total Number</b>	Range	6-208	5-208
	Mean±SD	36.64±42.55	34.73±43.27
	Missing (n)	9(21.4)	5(12.8)
<b>Number with Doctorate</b>	Range	1-91	1-91
	Mean±SD	14.11±19.07	13.32±19.31
	% of total	40.04±29.14	41.81±30.35
	Missing	14(33.3)	10(25.6)
<b>Number with Master's</b>	Range	0-88	0-88
	Mean±SD	11.46±16.91	10.00±17.39
	% of total	34.03±24.60	28.22±24.85
	Missing	14(33.3)	11(28.2)
<b>Number with Baccalaureate</b>	Range	0-6	0-4
	Mean±SD	0.75±1.60	0.30±0.82
	% of total	3.64±7.44	1.49±3.90
	Missing	14(33.3)	11(28.2)
<b>No information for faculty education</b>	Range	0-108	0-58
	Mean±SD	8.13±21.76	5.65±11.62
	% of total	19.71±33.69	22.64±32.64
	Missing	10(23.8)	7(17.9)

Curricula (see Table 6): BSN programs required more credits (123.3 ±18.1) compared to RN-BSN (92.8±34.7) and were approximately twice as long as the RN-BSN programs terms. The traditional BSN programs averaged about eight semesters (8.00 ±1.07) whereas the RN-BSN programs averaged about four semesters (4.1±0.84). The curriculum required for the programs also varied. Courses that were classified as nursing included those that covered management of patients in the following areas: medical-surgical, psychiatric, obstetrics/gynecology, pediatrics, community health, as well as those in foundations and physical assessment. Leadership and professional development courses were also included under this category. The Traditional BSN programs required on average almost double the amount of nursing credits with 56.76±11.11 and 32.26±13.56, respectively. The Traditional BSN programs had on average more course credits that were categorized as basic and social sciences with 15.8 ± 7.2 and 6 ± 4 credits, respectively. The Traditional BSN programs also included more courses categorized as general education or basic liberal arts type classes, 21.4 ± 10.6 credits. Traditional BSN programs were missing 14% of data for total credits, 26% for nursing, and 29% for basic science, social science, general education, research and electives. RN-BSN programs were missing 26% for total credits, 41% for basic science, 51% for social science, general education, research, and 49% for electives.

Table 6. Curriculum per Program Type (Mean±SD)

Course Types		Traditional BSN (n=42)	RN- BSN (n=39)
<b>Total credits</b>	Range	67-185	51-180
	Mean±SD	123.26±18.13	92.83±34.67
	Missing (n)	6(14.3)	10(25.64)
<b>Nursing</b>	Range	44-101	18-55
	Mean(SD)	56.76±11.11	32.26±13.56
	% of total	46.44±8.45	42.44±18.35
	Missing (n)	11(26.2)	16(41.03)
<b>Basic Science</b>	Range	9-45	0-26
	Mean(SD)	23.78±6.92	12.63±8.41
	% of total	19.18±4.53	15.80±10.62
	Missing (n)	12(28.6)	20(51.3)
<b>Social science</b>	Range	1.5-18	0-37.50
	Mean(SD)	9.58±3.96	8.29±8.22
	% of total	7.68±2.98	9.54±6.05
	Missing (n)	12(28.6)	20(51.3)
<b>General Ed.</b>	Range	0-39	0-43
	Mean(SD)	21.43±10.56	12.74±11.40
	% of total	17.01±8.65	16.11±13.99
	Missing (n)	12(28.6)	20(51.3)
<b>Research</b>	Range	0-10	0-8
	Mean(SD)	5.50±2.06	4.37±1.92
	% of total	4.46±1.57	5.84±2.79
	Missing (n)	12(28.6)	20(51.3)
<b>Electives</b>	Range	0-32	0-54.5
	Mean(SD)	6.60±7.87	8.48±14.47
	% of total	5.22±6.46	7.44±10.98
	Missing (n)	12(28.6)	19(48.7)

Data for the following program characteristics were unavailable: tuition costs, numbers of didactic and clinical hours, rates for retention, graduation, and NCLEX-RN performance; therefore, no comparisons were made

#### 4. Conclusion

Traditional BSN programs appeared to have unique characteristics. Compared to RN-BSN programs, BSN programs had stricter admission criteria (GPA, prerequisites and standard test scores) and required more course credits. Traditional BSN programs included more nursing courses, basic and social science courses, general education courses and liberal arts courses in their curricula. Traditional BSN programs also delivered more instruction on-site compared to on-line. The wide range of credits reported by RN-BSN programs and the lack of data regarding the specific curricular content made it difficult to determine if BSN-RN completion programs are offering an appropriate balance between specialized and more general knowledge and the number of credits required for a full baccalaureate degree as determined by the U.S. Secretary of Education.<sup>13</sup> The variables of interest with a high degree of missing data included the number of didactic and clinical hours, the rates of admission, retention and graduation, the minimum GPA requirement for graduation, and types of prerequisite courses.

Limitations: This study relied on data abstracted from each school's website, therefore data for some characteristics of interest were limited or unavailable, making it difficult to make comparisons between programs or draw conclusions about characteristics that could account for differences. The study only explored programs in the Commonwealth of Pennsylvania, therefore the findings may not be generalizable to other states.

Implications: While these findings revealed some differences between traditional BSN and RN-BSN programs, further research is needed to investigate the explanatory impact of these differences on health outcomes and to inform recommendations to stakeholders regarding the differential value of traditional BSN versus RN-BSN programs. Other data collection methods are needed to gather more complete data for characteristics of interest. Despite the need for additional research, prospective nursing students should be encouraged to enter traditional BSN programs directly to increase the number of BSN prepared nurses as expeditiously as possible. Hospital systems should increase investment in human capital by raising the number of BSN's they hire. Additionally, since currently there are not enough baccalaureate nursing programs to accommodate everyone who wants to get BSN, particularly in rural areas, and financial support for college is limited, leaders in the field emphasize that the urgency for BSN prepared nurses is not just a call to health system to increase the number of BSNs they hire, it is also a call to colleges and state legislatures that provide funding to increase the enrollment capacity in colleges of nursing with BSN programs.

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