CHAPTER FOUR: RESULTS

The data for this study were collected according to the description provided in Chapter Three. The results of the data analysis are reported in this chapter. First, a description of the demographic characteristics of the sample is provided. Then, the results of the study are described.

The Sample

The sample consisted of 583 students and faculty from seven ADN programs located in a mid-Atlantic state. The sample was smaller than anticipated for two reasons. First, several faculty members chose not to participate in the study. Second, some faculty members chose to have students in only one clinical group participate in the study rather than having students in each clinical group throughout the semester complete the instrument. A description of the demographic characteristics of the students and faculty who participated in the study is provided in the following sections of this chapter.

The Students

Students provided a total of 539 responses in the study. The demographic characteristics of the student sample are provided in Table 5.

A majority of respondents were females (93.5%) of Caucasian descent (89.7%). While these demographics may appear disproportionate, they are an accurate reflection of the population of RNs. In the state where the study occurred, 95.3 % of all RNs are female and 87.4 % are Caucasian (Virginia Tech Center for Survey Research, 2001).

Most of the respondents were between the ages of 22 to 29 years (36.2%) or between the ages of 30 to 39 years (26.1 %). This is younger than the average age of 45 for the RNs in this state (Virginia Tech Center for Survey Research, 2001). This would be expected since the participants were students learning nursing, not nurses.

The year in school of the student respondents was almost equally divided. Most (54.4%) were in their first year of a two-year program. The remainder (42.3%) were in their second year except for a small number (3.3%) who were in a bridge program designed to give advanced credit to Practical Nurses who are transitioning into an ADN program.

Students were asked to report the clinical setting in where they worked with the faculty member they were evaluating. The vast majority (72.4 %) reported that their clinical occurred in a medical/surgical setting. Again, this reflects the trends of professional RN practice, where the majority (64.8%) of RNs work in some sort of medical/surgical setting (Virginia Tech Center for Survey Research, 2001).

Table 5

Demographic Characteristics of the Student Sample (N= 539)

Characteristic	N	%
Gender		
Female	504	93.5
Male	29	5.4
No response	6	1.1
Age (years)		
< 18	1	.2
18-21	114	21.1
22-29	195	36.2
30-39	140	26.1
40-49	64	11.8
50-59	10	1.9
60 or above	1	.2
No answer	14	2.5
Race		
Caucasian	483	89.7
African-American	25	4.6
Asian	2	.4
Hispanic	2	.4
Native American	4	.7
Other	3	.6
Not answered	20	3.7
Year in Nursing School		
First year	294	54.4
Second year	226	42.3
LPN to RN Bridge Program	18	3.3
Clinical Setting		
Med/Surg	393	72.4
Pediatrics	44	8.4
Ob/Gyn	41	7.7
Psychiatrics	61	11.4

The Faculty

Forty-four faculty members participated in the study. Of those, 30 were employed on a full-time basis and 14 were employed on a part-time basis. The demographic characteristics of the faculty sample are provided in Table 6. A series of chi-square tests were conducted to determine if there were relationships between the demographic data and the respondents' employment status as full-time or part-time faculty. These results are reported in Table 7. As shown in this table, it was necessary to collapse some cells because of the limited size of the faculty sample. For instance, the variable of age was collapsed into three groups: 18 – 29 years, 30 – 49 years, and 50 or more years.

As a review of the demographics of the RN population at large would lead one to expect, the majority of the faculty respondents were female (93.2 %) and Caucasian (90.9%). There were no significant relationships between employment status and gender or between employment status and race.

The results of the chi-square test suggested that there is a relationship between age and employment status (p = .011). The average age of the faculty respondents was 40 to 49 years (36.4%). Only one part-time faculty member was 50 years or older, while 13 of the full-time faculty were 50 or more years old.

Full-time faculty had more years of teaching experience. Full-timers averaged 10 to 20 years of experience (41.4%) while part-timers averaged one to three years of experience (78.6%). A chi-square test revealed that there is a relationship between years of teaching experience and employment status (p = .001).

Another relationship was found between employment status and educational background (p =. 012). Most (55.2%) full-time faculty held master's degrees in nursing. The majority (78.6%) of part-time faculty held a baccalaureate degree, with 3 of the 14 holding a graduate degree.

Nursing faculty held various certifications in nursing. Nursing certifications are a means of recognizing nurses who are experienced in certain specialty areas of practice. Both full-time and part-time faculty respondents reported that they were certified in a wide variety of nursing specialties; including parish nursing, critical care nursing, emergency room nursing, and pediatrics. No statistically significant relationship was found between employment status and certifications held.

Most (81.4%) faculty reported that their clinicals occurred in a medical/surgical setting. There were no statistical relationship between the clinical setting and the employment status.

Results of the Study

The first research question in the study asked if students perceived any differences in the effectiveness of instruction provided by part-time clinical nursing faculty and full-

Table 6

Demographic Characteristics of the Faculty Sample (N= 44)

Characteristic	Full-Time Faculty		Part-time Faculty		Total	
	N	%	N	%	N	%
Employment Status	30	68.2	14	31.8	44	100
Gender						
Female	28	93.3	13	92.9	41	93.2
Male	2	6.7	1	7.1	3	6.8
Race						
Caucasian	29	96.7	11	78.6	40	90.9
African-American	1	3.3	1	7.1	2	4.5
Asian	0	0	1	7.1	1	2.3
Hispanic	0	0	0	0	0	0
Native American	0	0	0	0	0	0
Other	0	0	0	0	0	0
Not answered	0	0	1	7.1	1	2.3
Age (years)						
22-29	0	0	2	14.3	2	4.5
30-39	6	20	6	42.9	12	27.3
40-49	11	36.7	5	35.7	16	36.4
50-59	8	26.7	1	7.1	8	18.2
60 or above	5	16.7	0	0	6	13.6
Years as Faculty						
1-3	7	24.1	11	78.6	18	41.9
4-7	1	3.4	2	14.3	3	7.0
8-10	3	10.3	0	0	3	7.0
10-20	12	41.4	1	7.1	13	30.2
More than 20	6	20.4	0	0	6	14.0
Highest Degree Held						
BS in Nursing	11	37.9	11	78.6	22	51.2
Master's in Nursing	16	55.2	2	14.3	18	41.9
Other Master's	1	3.4	1	7.1	2	4.7
Doctorate in Nursing	1	3.4	0	0	1	2.3
Other Doctorate	0	0	0	0	0	0
Nursing Credentials						
Credential Held	12	42.9	7	50	19	51.2
Credential Not Held	16	57.1	7	50	23	41.9
Clinical Setting						
Med/Surg	22	75.9	5	92.9	35	81.4
Pediatrics	2	6.9	0	0	2	4.7
Ob/Gyn	2	6.9	0	0	2	4.7
Psychiatrics	3	10.3	1	7.1	4	9.3

Table 7

Differences Between Full-time and Part-time Faculty Respondents

	N	x^2	*df*	α
Gender		.003	1	.953
Females				
Part-time Faculty	13			
Full-time Faculty	28			
Males				
Part-time Faculty	1			
Full-time Faculty	2			
Race		2.030	1	.154
Majority				
Part-time Faculty	11			
Full-time Faculty	29			
Minority				
Part-time Faculty	2			
Full-time Faculty	1			
Age		8.935	2	.011*
18 – 29 years old				
Part-time Faculty	2			
Full-time Faculty	0			
30 – 49 years old				
Part-time Faculty	11			
Full-time Faculty	17			
50 or more years old				
Part-time Faculty	1			
Full-time Faculty	13			
Years as Clinical Nursing Faculty		13.131	2	.001*
1 – 3 years				
Part-time Faculty	11			
Full-time Faculty	7			
4 – 10 years				
Part-time Faculty	2			
Full-time Faculty	4			
11 or more years				
Part-time Faculty	1			
Full-time Faculty	18			

*= significant at the .05 level

Table 7 (continued)

Differences Between Full-time and Part-time Faculty Respondents

	N	x^2	*df*	α
Highest Degree Held		6.241	1	.012*
Baccalaureate				
Part-time Faculty	11			
Full-time Faculty	11			
Advanced Degree				
Part-time Faculty	3			
Full-time Faculty	18			
Nursing Credentials (other than degree)		.192	1	.661
Credentials held				
Part-time Faculty	7			
Full-time Faculty	12			
Credentials not held				
Part-time Faculty	7			
Full-time Faculty	16			
Clinical Setting		1.801	1	.180
Med/Surg				
Part-time Faculty	13			
Full-time Faculty	22			
Other setting				
Part-time Faculty	1			
Full-time Faculty	7			

*= significant at the .05 level

time clinical nursing faculty. To answer this question, the researcher conducted a one-way ANOVA procedure. Results are reported in Table 8.

The findings reveal significant differences in student perceptions of full-time and part-time faculty on each of the scales as well as on the total score. Students rated the Teaching Ability of full-time faculty (μ=6.0449) higher than that of part-time faculty (μ=5.4208, p = .000). The students' rating of full-time faculty members' (μ=6.2618) Nursing Competence was also higher than the rating of part-time faculty members' Nursing Competence (μ=5.6625, p=. 000). Students ranked full-time faculty (μ=6.1450) higher than part-time faculty (μ=5.6839, p=.000*)* on Evaluation. Full-time faculty (μ=6.1456) also were perceived to have better Interpersonal Relationships with students than part-time faculty (μ = 5.8687, p= .009). In terms of Teacher's Personality, students again rated full-time faculty (μ=6.2256) higher than part-time faculty (μ=5.7042, p = .000). Finally, students rated full-time faculty (μ=6.1734) higher Overall than they rated part-time faculty (μ=5.5787, p =.000). These data should be interpreted carefully because the assumption of homogeneity of variance was violated for this question. Levene's test revealed that the population from which the groups were sampled was not equal. Violating this assumption leads to a higher chance of a Type I error, or rejection of the null hypothesis when it is true (Howell, 1997).

The second research question asked if there are differences in the way full-time faculty and part-time faculty perceive their own teaching effectiveness. As reported in Table 9, there were no significant differences in the self-reported perceptions of faculty based on their employment status.

The third research question investigated differences in the way students and faculty perceive the effectiveness of instruction. This question was answered in two stages. First, the differences in the way the students of part-time faculty and part-time faculty perceive instruction were analyzed. As seen in Table 10, there were no significant differences. These data should again be interpreted carefully due to violation of the assumption of homogeneity of variance.

Second, the differences in the way the students of full-time faculty and full-time faculty perceive instruction were analyzed. Again, no significant differences were found. These data are reported in Table 11.

The final research question asked how student ratings of teaching effectiveness compare to the percentage of first-time pass rates on the NCLEX-RN. The NCLEX-RN is a national exam that nursing graduates must pass before they can be licensed to practice nursing. Each participating nursing program head was asked to provide pass rate data to the researcher. Data were not available from two of the participating programs. The average pass rate for the last five years was calculated for the remaining schools. Then, the researcher determined the mean Overall student rating of instruction for each school. These data are reported in Table 12.

Table 8

Student Perceptions of Part-time and Full-time Clinical Nursing Faculty Effectiveness: (N=532)

	N	*M*	*SD*	*df*	*F*	α
Teaching Ability				1	41.622	.000*
Students of PT Faculty	205	5.4208	1.3011			
Students of FT Faculty	317	6.0449	.9078			
Nursing Competence				1	37.405	.000*
Students of PT Faculty	201	5.6625	1.3008			
Students of FT Faculty	307	6.2618	.9069			
Evaluation				1	20.693	.000*
Students of PT Faculty	209	5.6839	1.2668			
Students of FT Faculty	318	6.1450	1.0455			
Interpersonal Relationships				1	6.955	.009*
Students of PT Faculty	210	5.8687	1.3271			
Students of FT Faculty	322	6.1456	1.0805			
Teacher's Personality				1	25.543	.000*
Students of PT Faculty	208	5.7042	1.3872			
Students of FT Faculty	319	6.2256	.9796			
Overall				1	36.589	.000*
Students of PT Faculty	185	5.5787	1.2660			
Students of FT Faculty	293	6.1734	.8816			

*= significant at the .05 level

Table 9

Part-time and Full-time Clinical Nursing Faculty Perceptions of Their Own Effectiveness (N=44)

	N	*M*	*SD*	*df*	*F*	α
Teaching Ability				1	.011	.917
Part-Time Faculty	13	5.9399	.6282			
Full-Time Faculty	30	5.9584	.4905			
Nursing Competence				1	.084	.774
Part-Time Faculty	14	6.1014	.6325			
Full-Time Faculty	26	6.1592	.5853			
Evaluation				1	.507	.480
Part-Time Faculty	14	6.1952	.5390			
Full-Time Faculty	30	6.0537	.6446			
Interpersonal Relationships				1	1.250	.270
Part-Time Faculty	14	6.4167	.6529			
Full-Time Faculty	30	6.1828	.6433			
Teacher's Personality				1	.024	.879
Part-Time Faculty	14	6.0816	.6131			
Full-Time Faculty	30	6.1110	.5806			
Overall				1	.307	.583
Part-Time Faculty	13	6.1677	.5358			
Full-Time Faculty	26	6.0713	.5009			

*= significant at the .05 level

Table 10

Differences in Perceptions of Clinical Nursing Faculty Effectiveness by Part-time Faculty and Students of Part-time Faculty (N=224)

	N	*M*	*SD*	*df*	*F*	α
Teaching Ability				1	2.032	.155
Part-time Faculty	13	5.9399	.6282			
Students of PT Faculty	205	5.4208	1.3011			
Nursing Competence				1	1.563	.213
Part-time Faculty	14	6.1014	.6325			
Students of PT Faculty	201	5.6625	1.3008			
Evaluation				1	2.246	.135
Part-time Faculty	14	6.1952	.5390			
Students of PT Faculty	209	5.6839	1.2668			
Interpersonal Relationships				1	2.342	.127
Part-time Faculty	14	6.4167	.6529			
Students of PT Faculty	210	5.8687	1.3271			
Teacher's Personality				1	1.019	.314
Part-time Faculty	14	6.0816	.6131			
Students of PT Faculty	208	5.7042	1.3872			
Overall				1	2.769	.098
Part-time Faculty	13	6.1677	.5358			
Students of PT Faculty	185	5.5787	1.2660			

*= significant at the .05 level

Table 11

Differences in Perceptions of Clinical Nursing Faculty Effectiveness by Full-time Faculty and Students of Full-time Faculty (N=352)

	N	*M*	*SD*	*df*	*F*	α
Teaching Ability				1	.264	.608
Full-time Faculty	30	5.9584	.4905			
Students of FT Faculty	317	6.0449	.9078			
Nursing Competence				1	.321	.572
Full-time Faculty	26	6.1592	.5853			
Students of FT Faculty	307	6.2618	.9069			
Evaluation				1	.221	.639
Full-time Faculty	30	6.0537	.6446			
Students of FT Faculty	318	6.1450	1.0455			
Interpersonal Relationships				1	.034	.853
Full-time Faculty	30	6.1828	.6433			
Students of FT Faculty	322	6.1456	1.0805			
Teacher's Personality				1	.397	.529
Full-time Faculty	30	6.1110	.5806			
Students of FT Faculty	319	6.2256	.9796			
Overall				1	.338	.561
Full-time Faculty	26	6.0713	.5009			
Students of FT Faculty	293	6.1734	.8816			

*= significant at the .05 level

Table 12

Comparison of Student Perception of Overall Teaching Effectiveness and Average NCLEX-RN Pass Rate (N=478)

	Student Perception of Overall Teaching Effectiveness (*M*)	Average NCLEX-RN Pass Rate (%)
Program A	6.6477	90.5
Program B	6.4656	91
Program C	6.0854	No Data Available
Program D	5.7412	No Data Available
Program E	5.7323	80.5
Program F	5.6764	91.5
Program G	5.6268	88.76

Student perception of overall teaching effectiveness does not appear to be related to the average pass rate on the NCLEX-RN. The program with the highest Overall mean student perception (μ=6.6477) had an average pass rate of 90.5%. A program with a low Overall mean student perception (μ=5.6764) had an average pass rate of 91.5%.

The results of this study revealed significant differences in only one area: students' perceptions of teaching effectiveness between part-time and full-time faculty. These results, and their implications for future practice and research are discussed in Chapter Five of this study.