

## CHAPTER IV

### DATA ANALYSIS AND FINDINGS

#### Introduction

The purpose of this quasi-experimental study was to compare medical surgical registered nurses with and without mentoring on the assessment of patients, clinical decision-making, cultural competence, commitment to professional nursing standards, positive feelings towards nursing at this hospital, and their willingness to remain in the nursing profession. The study also investigated an anecdotal evaluation of the mentees strengths and weaknesses as completed by the mentors at the completion of the eight- week study.

The following six research questions guided the data analysis:

1. How do novice medical surgical registered nurses with and without mentoring differ in the pre-mentoring assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession?
2. How do novice medical surgical registered nurses with and without mentoring differ on the post-mentoring assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession?
3. How do novice medical surgical registered nurses with and without mentoring differ for their pre and post mentoring assessment of patients, clinical decision making, cultural competency,

commitment to the professional nursing standards, positive feelings towards nursing at this hospital and their willingness to stay in the nursing profession?

4. What relationships are there among novice medical surgical registered nurses with and without mentoring in their assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession for their post mentoring test score?
5. For medical surgical registered nurses with and without mentorship, how do their scores on the post mentoring assessment of patients, clinical decision making, cultural competency, and commitment to professional nursing standards, positive feelings towards nursing at this hospital predict their willingness to remain in the nursing profession?
6. How do medical surgical mentors describe their strengths and weaknesses of mentees who were mentored on the assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession?

The findings of the research questions, description of the participants, and statistical analyses are presented in Chapter Four.

#### *Research Question One*

How do novice medical surgical registered nurses with and without mentoring differ in the pre-mentoring assessment of patients, clinical decision making, cultural competency, commitment to

professional nursing standards, positive feelings towards nursing at this hospital, and willingness to remain in the profession?

A t-test analysis of independent mean scores was utilized to answer this question.

Table 4.9 Independent- Sample Means t-test for pretest with and without mentorship

	M	t-test for Equality of Means				
		T	df	Sig. (2-tailed) Difference	Mean	Mean Difference
Clinical decision making pre	65.44	1.277	48	.208	2.08	2.08000
No Mentorship	63.36					
With Mentorship						
Patient assessment pre	39.04	1.801	39.84	.079	1.52	1.52000
No Mentorship	37.52					
With Mentorship						
Cultural competence pre	31.68	.000	48	1.00	.000	.00000
No Mentorship	31.68					
With Mentorship						
Commitment standards pre	58.64	1.089	48	.282	1.72	1.72000
No Mentorship	56.92					
With Mentorship						
Positive feeling pre	25.12	-.470	48	.641	-.56	-.56000
No Mentorship	25.68					
With Mentorship						
Willingness pre	33.00	-.722	48	.474	-.64	-.64000
No Mentorship	33.64					
With Mentorship						

**Since the Sig. (2-tailed) difference between mentoring and no mentoring are all greater .05 it can be concluded that there is no statistically significant difference between the two conditions. It can be said that novice medical surgical registered nurses with and without mentoring did not have significant difference in the pre-mentoring assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital, and willingness to remain in the profession, except patient assessment pre approaching significance with a difference of .079.**

*Research Question Two*

How do novice medical surgical registered nurses with and without mentoring, differ on the post-mentoring assessment of patients, clinical decision making, cultural competency, commitment to

professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession?

Table 4.10 Descriptive Statistics for Clinical Decision Making, Patient Assessment, Cultural Competency, and Commitment to Practice, Positive Feeling, and Willingness to Remain in the Profession by Posttest Group.

	Mentorship	N	M	SD	t	df	Sig(2)
Clinical decision making post	No mentorship	24	64.45	5.41318	-1.167	47	.249
	With mentorship	25	66.28	5.51150			
Patient assessment post	No mentorship	25	38.88	2.24202	.239	48	.812
	With mentorship	25	38.68	3.53223			
Cultural competence post	No mentorship	25	31.16	2.96760	-1.835	48	.073
	With mentorship	25	32.52	2.21961			
Commitment to practice post	No mentorship	25	57.80	4.29146	-1.285	48	.205
	With mentorship	25	59.56	5.33916			
Positive feeling post	No mentorship	25	24.60	4.33013	-2.690	48	.010
	With mentorship	25	27.36	2.75197			
Willingness post	No mentorship	25	32.24	4.09553	-2.322	48	.025
	With mentorship	25	34.44	2.38188			

**T-TEST statistics of Table 4.10 describes novice medical surgical registered nurses with and without mentoring, and whether there are differences on the post-mentoring assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession. The results described for Positive feeling post and willingness post (.010 and .025 respectively) are significant. Cultural competence approaches significance at .073.**

*Research Question Three*

How do novice medical surgical registered nurses with and without mentoring differ for their pre and post mentoring assessment of patients, clinical decision making, cultural competency,

commitment to professional nursing standards, positive feelings towards nursing at this hospital and their willingness to stay in the nursing profession?

A t-test of related means was employed to determine if respondents differ significantly in their pre and post-tests scores for the assessment of patients, clinical decision-making, cultural competency, commitment to professional nursing standards, positive feeling towards nursing at this hospital and their willingness to remain in the profession.

#### 4.12 Paired Sample Test for Medical Surgical Nurses with mentorship pre and post tests

Status	Pair	Paired Differences		95% Confidence Interval of the Difference		
		Mean Difference	Std. Deviation	t	df	p-value
No Mentor	Clinical decision pre	0.71	4.832	0.718	23	0.480
	Clinical decision post					
	Patient assess pre	0.16	2.718	0.294	24	0.771
	Patient assess post					
	Cultural competence pre	0.52	2.485	1.046	24	0.306
	Cultural competence post					
	Commitment standards pre	0.84	5.161	0.814	24	0.424
	Commitment standards post					
	Positive feeling pre	0.52	3.776	0.689	24	0.498
	Positive feeling post					
With Mentor	Willingness pre	0.76	3.756	1.012	24	0.322
	Willingness post					
	Clinical decision pre	-2.92	5.016	-2.911	24	0.008
	clinical decision post					
	Patient assess pre	-1.16	3.236	-1.792	24	0.086
	Patient assess post					
	Cultural competence pre	-0.84	2.495	-1.684	24	0.105
	Cultural competence post					
	Commitment standards pre	-2.64	4.872	-2.709	24	0.012
	Commitment standards post					
Positive feeling pre	-1.68	2.795	-3.006	24	0.006	
Positive feeling post						
Willingness pre	-0.80	1.708	-2.342	24	0.028	
Willingness post						

**The results of the Paired Sample in figure 4.12 show a significant difference for in their pre and post-tests scores for novice nursing students with mentoring for clinical decision making, commitment, positive feelings, and willingness (p= 0.008, 0.012, 0.006, 0.028 respectively) for the post-test only. There was no significance for any of the variables with “no mentor” as per all p values.**

*Research Question Four*

What relationships are there among novice medical surgical registered nurses with and without mentoring in their assessment of patients, clinical decision making, cultural competency, commitment to professional nursing standards, positive feelings towards nursing at this hospital and willingness to remain in the nursing profession posttest scores?

A Pearson Product Moment correlation analysis was utilized to examine the strengths of the binary relationships among these variables. The results for respondents with no mentoring are shown in Table 4.13 and those for respondents with mentoring are shown in Table 4.14.

Table 4.13 Correlations among Variables and Willingness to Remain in the Nursing Profession for Respondents with No Mentoring

		WP	CDMP	PAP	CCP	CPSP	PFP	RNE	YH	A
CDMP	r	0.575**								
	r <sup>2</sup>	.331								
	N	24	24							
PAP	r	.620**	.716**							
	r <sup>2</sup>	.384	.513							
	N	25	24							
CCP	r	.662**	.706**	.642**						
	r <sup>2</sup>	.438	.498	.442						
	N	25	24	25						
CPSP	r	.420*	.702**	.426*	.660**					
	r <sup>2</sup>	.176	.493	.182	.436					
	N	25	24	25	25					

PFP	r	.786**	.650**	.480*	.459*	.433*			
	r <sup>2</sup>	.617	.423	.230	.211	.188			
	N	25	24	25	25	25			
RNE	r	-0.338	-0.316	-0.228	-.439*	-0.253	-0.276		
	r <sup>2</sup>	-.114	.099	-.052	-.0193	-.064	-.076		
	N	25	24	25	25	25	25		
YH	r	-0.354	-0.37	-0.249	-.450*	-0.276	-0.257	.897**	
	r <sup>2</sup>	-.125	-.136	-.062	-0.203	-0.076	-.066	.804	
	N	25	24	25	25	25	25	25	
A	r	0.391	0.219	0.098	0.232	0.381	0.244	0.073	-0.054
	r <sup>2</sup>	.153	.048	.096	.054	.145	.059	.053	-.029
	N	25	24	25	25	25	25	25	25

Note: CDMP = Clinical Decision Making Post, PAP = Patient Assessment Post, CCP = Cultural Competency Post, CPSP= Commitment to Professional Standards Post, PFP= Positive Feelings towards Nursing at the Hospital Post, RN= RN Experience, YH= Years Worked at the Hospital, A= Age

\*correlation is significant at the 0.05 level

\*\*correlation is significant at the 0.01 level

Table 4.14 Correlations among Variables and Willingness to Remain in the Nursing Profession With Mentoring

		WP	CDMP	PAP	CCP	CPSP	PFP	RNE	YH	A
CDMP	r	.606**								
	r <sup>2</sup>	.367								
	N	25								
PAP	r	.592**	.904**							
	r <sup>2</sup>	.350	.817							
	N	25	25							
CCP	r	0.333	.458*	.570**						
	r <sup>2</sup>	.111	.209	.324						
	N	25	25	25						
CPSP	r	.475*	.882**	.856**	.467*					
	r <sup>2</sup>	.226	.777	.733	.218					
	N	25	25	25	25					
PFP	r	.750**	.688**	.557**	0.22	.462*				
	r <sup>2</sup>	.561	.473	.310	.048	.213				

	N	25	25	25	25	25	25		
RNE	r	-0.216	-0.111	-0.096	-0.052	-0.024	0.052		
	r <sup>2</sup>	.046	-.012	-.009	-.0027	-.006	.0027		
	N	25	25	25	25	25	25		
YH	r	-0.208	-0.172	-0.099	0.022	-0.115	-0.104	.708**	
	r <sup>2</sup>	.043	.029	-.0098	0.005	-.013	-0.010	.501	
	N	25	25	25	25	25	25	25	
A	r	0.277	0.328	0.347	0.133	0.265	0.222	-0.177	-0.001
	r <sup>2</sup>	.076	.107	.120	0.017	0.070	0.049	-0.031	0
	N	25	25	25	25	25	25	25	25

Note: CDMP = Clinical Decision Making Post, PAP = Patient Assessment Post, CCP = Cultural Competency Post, CPSP= Commitment to Professional Standards Post, PFP= Positive Feelings towards Nursing at the Hospital Post, RN= RN Experience, YH= Years Worked at the Hospital, A= Age

\*correlation is significant at the 0.05 level

\*\*correlation is significant at the 0.01 level

**Table 4.13 shows the Correlations among Variables and Willingness to Remain in the Nursing Profession for Respondents with No Mentoring. Correlation coefficients were computed using the Pearson Product Moment Correlation where an r value of 0.05 was required to determine statistically significant relationships among the variables and willingness to remain in the nursing profession for respondents with no mentoring. As indicated Table 4.13 the variable “willingness to remain in the profession” was positively correlated with the variables, positive feeling towards nursing at hospital post, cultural competency post, patient assessment post, clinical decision making post, commitment to professional standards post, and age. The correlations strength ranged from strong to moderate,  $r=0.786$ ,  $r=0.662$ ,  $r=0.620$ ,  $r=0.575$ ,  $r=0.420$ ,  $r=0.391$  respectively. These percent of variance accounted for each of the variables positively correlated with willingness to remain in the profession (61.7 %, 43.8%, 38.4%, 33.1%, 17.6%, and 15.3% respectively).**

**There was inverse correlation with RN experience and years worked at the hospital show with willingness to stay in the profession. The strength of the correlations were weak  $r=-0.354$  and  $r=-0.358$  respectively. The percent of variance accounted for by each of the inversely correlated variables was 12.5% and 11.4% respectively. This suggests that nurses that were not mentored scored low within the dimensions of willingness to stay in the profession**

**In table 4.14 correlation coefficients were computed using the Pearson Product Moment correlation analysis (r) where an r value of 0.05 was required to determine statistically significant relationships among variables and willingness to remain in the nursing profession for respondents with nurses who were mentored. Findings indicated that the variable willingness to remain in the profession had a positive correlation with positive feeling toward nursing at the hospital post, clinical decision making post, patient assessment post, commitment to the professional standards post, cultural competency post, and age, ranging from strong to weak, ( $r=0.750$ ,  $r=0.606$ ,  $r=0.592$ ,  $r=0.475$ ,  $r=0.333$ ,  $r=0.277$  respectively). These findings indicated the percent of variance accounted for by each of the variables positively correlated with willingness to remain in the profession was 56.1 %, 36.7%, 35.0%, 22.6%, 11.1%, 7.6% respectively. The direct relationship between the willingness to remain in the profession and the**

**positively correlated variables suggests that when nurses were mentored positive feeling toward nursing at the hospital post, clinical decision making post, patient assessment post, commitment to the professional standards post, cultural competency post, and age were factors.**

**Both RN experience and years worked at the hospital showed inverse correlations with willingness to stay in the profession. The strength of correlations was weak  $r = -0.216$  and  $r = -0.208$  respectively. The findings indicated that the percent of variance accounted for by each of the inversely correlated variables was 4.6% and 4.3% respectively.**

**Nurses who were mentored only performed higher than those who were not mentored when measuring the relationship between the dimensions of willingness to stay in the profession and in clinical decision-making post and commitment to professional standards post. This suggests that mentoring had no effect on the willingness to stay in the profession except for those already sited.**

### *Research Question Five*

For nurses with and without mentorship, how do their scores on the post mentoring assessment of patients, clinical decision making, cultural competency, and commitment to professional nursing standards, positive feelings towards nursing at this hospital predict their willingness to remain in the nursing profession?

A multiple regression analysis was utilized to determine if any of the independent variables predict the nurses' willingness to remain in the profession. The results of the regression analysis are shown in Tables 4.15 and 4.16.

Table 4.15 Multiple Regression Analysis

<b>Model Summary</b>										
Mentor	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig. F Change
no	1	.655 <sup>a</sup>	.428	.402	3.17427	.428	16.491	1	22	.001
mentor	2	.850 <sup>b</sup>	.722	.696	2.26477	.294	22.218	1	21	.000

with	1	.606 <sup>c</sup>	.367	.340	1.93551	.367	13.346	1	23	.001
mentor	2	.760 <sup>d</sup>	.578	.540	1.61558	.211	11.011	1	22	.003

- a. Predictors: (Constant), culture competence post  
b. Predictors: (Constant), culture competence post, Positive feeling post  
c. Predictors: (Constant), clinical decision making post  
d. Predictors: (Constant), clinical decision making post, Positive feeling post

Table 4.16 Coefficients

		Coefficients <sup>a</sup>					
Mentor	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
no mentor	1	(Constant)	4.290	6.875		.624	.539
		Culture competence post	.894	.220	.655	4.061	.001
	2	(Constant)	1.530	4.940		.310	.760
		Culture competence post	.527	.175	.386	3.004	.007
		Positive feeling post	.582	.123	.605	4.714	.000
with mentor	1	(Constant)	17.083	4.767		3.584	.002
		Clinical decision making post	.262	.072	.606	3.653	.001
	2	(Constant)	14.569	4.050		3.597	.002
		Positive feeling post	.548	.165	.633	3.318	.003
		Clinical decision making post	.074	.082	.170	.893	.382

a. Dependent Variable: Willingness post

**A good model is Model 2, With No Mentoring because the r –square is .722 and significance of .000. Model 2 With Mentoring is a good model with an r –square of .578 and significance of .003. Model 2 without mentoring is also a good model with Culture Competence Post (r –square=.527) and is significant (.007). Model 2 without mentoring is a good model with Positive Feeling Post (r –square=.582) and is significant (.000). Model 2 with mentoring is a good model with Positive Feeling Post (r –square=.548) and is significant (.003).**