

Original Research Article

Impact of Job Satisfaction on Quality of Care Among Nurses on the Public Hospital of Lahore, Pakistan

Asima Farman¹, Robina Kousar², Muhammad Hussain³, Ali Waqas⁴, Dr. Syed Amir Gillani⁵

¹Post RN Student, Lahore School of Nursing, the University of Lahore, Pakistan

²Associate Professor, Lahore School of Nursing, the University of Lahore, Pakistan

³Associate Professor, Lahore School of Nursing, the University of Lahore, Pakistan

⁴Bio-statistician, Lahore School of Nursing, the University of Lahore, Pakistan

⁵Dean, Faculty of Allied Health Sciences, the University of Lahore, Pakistan

*Corresponding Author:

Asima Farman

Email: asimafarman91@gmail.com

Abstract: Patient satisfaction is an integral part of the quality care in health care setting and also a very important factor to measure the quality nursing care. Satisfaction is a fundamental concept that depends upon various factors such as patients' past experience with the nursing care, their future expectation from nurses and social, ethical and moral values of the individuals. Hospital organization directly depends upon their patients; more patients were come when they were treat with the best quality of care. Now a day's nurses are responsible for providing quality of care to patients but unfortunately they are not satisfied with their jobs due to following factors like: stress, workload, and unsafe working environment. This increases mortality and co morbidity rate and serious adverse events in the world. Quantitative descriptive correlational design was use in this study. The main aim of descriptive correlational study is to check the association between nurse's job satisfaction and quality of care and factors which affecting on quality of care. Data analyzed by SPSS version 21. Sample size was 222 by convenience sample technique, 5 point scale likert scale questionnaire was used. Data collected by Register Nurses of Jinnah hospital Lahore, Pakistan. This study found that nurses' job satisfaction and quality of care are positively correlated. 68.5% of participants believed the quality of care they provided was affected by employee job satisfaction. The finding of this study concluded that there was a positive correlation relationship between nurses' job satisfaction and quality of care they deliver. This study also proves that work load, stress and unsafe work environment were main factors which effect on quality of care.

Keywords: Job satisfaction, Quality of care, Nurses. Public Hospital

INTRODUCTION

Job satisfaction and quality care are the two main factors which directly affect the health care industry because if nurses do not give the quality care to their patients then the patient turnover increased [1].

In fact satisfaction is the cognitive situation that results from confirmation or disconfirmation of some one's belief. It is a very immense topic discussing in the hospital management, social sciences and in the field of nursing as nursing services are the main component of the quality care in the health care industry. patient satisfaction can be defined as "it is the patient's perception about the nursing care that they expect and compared to the actual care they received from the nurses" Hockenberry, M. J., & Wilson, D. [2]. Nursing care and patient satisfaction are closely related to each other because the level of the patient satisfaction depends upon the quality of care that they receive. Rajeswari, T. [3].

Patients' satisfaction varies from person to person depending on their past experience, educational background and their perceptions about the nursing care, on the other hand, patient's satisfaction represents the balance in the care that patients expect from the nurses and the care that they received from the nurses during their hospital stay. Rajeswari, T. [3].

As a nurse we have the responsibility to give high quality of care to our patients. job satisfaction is most important that constantly influence the nature of services which nurses give to their patient [4]. It is observed that this quality care is influenced by job satisfaction that includes various aspects like working environment, stress, pay compensation and staff scheduling.

According to the American nurses association, nursing is the shelter, development and upsurge of

health and capabilities. It focuses on the eradication of illness through treatment and advocacy in health care from individuals to communities. A. N. [5] quality of care is the first priority of any organization and it is the responsibility of a nurse to enhance the status of organization in the context of care [6]. Nurses play a major role to run the economy of the organization as they have direct interaction with their patients and if the nurses provide quality of care to the patients, economy of the organization moves toward soundness [7]. Quality level of any organization play vital role in the job satisfaction, a study of Dutch nurses by [8] indicated there is a close relation between organizational development and quality of care provided by the organization this study shows that there is a clear link among employees satisfaction and the organizational achievement. The result [8] In addition salary satisfaction and workplace environment were determined as the variables influencing nurses' job satisfaction. In this study the dependent variable is quality care and the independent variable is job satisfaction.

Purpose

The aim of the study is to investigate the association between nurses' job satisfaction and quality of care. Also explore the factors which effect the job satisfaction. And understand how nurse's job satisfaction can be improve by delivering the quality of care.

Problem statement

Now a day's nurses are responsible for providing quality of care to patients but unfortunately they are not satisfied with their jobs due to the so many factors some of them are following like: stress, workload, and unsafe working environment which was rule out in the study and how much they effect on the care. Healthy and safe work environment effects positively on nurses job satisfaction and in this way they provide quality of care to patients and decrease mortality and co morbidity rate serious adverse events in the world.

A study conducted by, Hamid, S., Malik, A. U., Kamran, I., & Ramzan, M [4]. In Islamabad to explore the multiple factors and different component that continually affect job satisfaction in nurses and their following preservation in the various health care setting.

Significance

Patients were very significant for the organization, study participants and for professionals. Because the findings of this study give the right information about how it effects job satisfaction and quality of care which help the organization to improve job satisfaction level of their nurses through which it

improves the quality of care of nurses. This is the responsibility of health organization to provide high quality services along with quality of care. The results of this study help the organization to improve the quality of care as well as employee satisfaction level, which improve the quality of care.

Research question

- Is there any association between nurse's job satisfaction and quality of care?
- What are the factors which effects on nurses quality of care and satisfaction of job?

Research objectives

- To assess the association of nurses' job satisfaction on the quality care in the Public Hospital Lahore, Pakistan.
- To assess the factors which effects on job satisfaction and Quality of care in the Jinnah Hospital of Lahore, Pakistan

Hypothesis

h₁: There is no correlation between nurses' job satisfaction and the quality care.

h₀: There is a significant correlation among the nurses' job satisfaction and the quality care.

LITERATURE REVIEW

job satisfaction and quality care are the two main factors which directly affect the health care industry because if nurses do not give the quality care to their patients then the patient turn over will increase [9]. Hospital organization directly depends upon their client (patient). When patient treated with the best quality of care and satisfied from the care of hospital organization. It will increase the patient ration within organization which is beneficial for organization. Literature review reflects that there is unswerving association among organizational success and the employees' job satisfaction. Zimmermann, S. [9] Conducted a research which results revealed that job satisfaction increase the staff retention within organization. Further, he stated on the basis of their job satisfaction, organization can evaluate whether nurses will stay or leave the organization. a low level nursing care may be due to nurses unsatisfactory attitude towards patient care and they fail to provide good health care to the patients [10].

According to [1]. job satisfaction among nursing staff is directly proportion to quality of care. As nursing staff are satisfied from their jobs, they provide quality care to the patient.

Quality care ought to be assessed just from a patient's results and satisfaction point of view. Additionally from the nurses' viewpoint to reduce the unfairness of supposition. Burhans, L. M., & Alligood, M. R. [6].

Stated that while nurses' quality of care is assessed by evaluation, planning, viability of medicines, medications, communication and graciousness.

A study demonstrated there is a significant relationship between workload stress and medication error. Morsy, S. M., & Sabra, H. E. [11].

Nurses usually work for 8 to 12 hours in a day and due to unanticipated staffing, consequences of the patient care are altered and it is common for nurses to be mandated for overtime beyond their scheduled hours resulting in exhaustion. According to Morsy, S. M., & Sabra, H. E. [11]. That a long time shift has great effects upon medication error, maltreatment and staff stress level is increase. in another study by [12] found that mortality rate for surgical patients was 60% higher in poorly-staffed hospitals than in hospitals with better staffing.

Work environment is also one of the key factors which affect the delivery of quality care. As the author said that those nurses work in a stressful and difficult environment they lose their capacity to give quality of care to the patient. Chang, W. Y., Ma, J. C., Chiu, H. T., Lin, K. C., & Lee, P. H. [12].

Patient outcomes and quality of care has a direct relation with nurse's job satisfaction and may be positively or negatively correlated with each other. Job satisfaction is always important among nursing because patient turnover depends upon it. Moreover, job satisfaction also assures the nursing retention in organization. BUTAWA, N. [13].

To retain best-qualify and competitive employees, an organization should increase the patient satisfaction and should implement competitive measures that fulfill employee's needs. The organizational management practice work force development, organizational culture and work design are directly. Hall, L. M., Doran, D., & Pink, L [14].

METHODS AND SAMPLE

Quantitative descriptive Correlational study design was applied. The 34 items questionnaire was used which were adopted from Samerol Aron [18]. Based on 5-point Likert scale was used to Assess the association between job satisfaction and Quality of care and factors which affecting job satisfaction and quality of care of nurses in Jinnah hospital Lahore The self-administered questionnaire was distributed to 222 Nurses of Jinnah hospital Lahore, Pakistan through convenient sampling. Registered Nurses from all Indoor departments which having Age between, 22-55, sex-female ,education, which are only graduates and licensed registered nurses, experience-more than 2years experienced staff nurses which are only working in the in patients departments. Age-less than 21to more than 55, experience-un registered staff nurses, which are near to retired, sex-male nurses, education: undergraduate's staff nurse, like nurses assistants, midwives, and nurses which are working in the outpatient departments and operation theaters and Involountareres which were not take written consent and not agree for participation are excluded in my study. The data was taken after taking permission letter from Head of department. Principal Lahore school of Nursing, The University of Lahore. Participant's recruitment was on purely voluntary basis. The data was analyzed by using the statistical package for social sciences (SPSS) version 21.

DATA ANALYSIS

Data was analyzed by using spss version 21, by using descriptive correlation analysis. For the achievement of good result in research, the researcher must provide detail information to the research participants. Moreover this research can be achieved through questionnaire, letter of consent attach to the questionnaire duration of the participants, confidentiality, limitations and significance of the research.

RESULTS Demographic

Blow tables will represent demographic data of the respondents (n=222) on the base of their gender, age, years of education and experience.

Table-01: Age of participants					
		frequency	percent	valid percent	cumulative percent
Valid	18-25	97	43.7	43.7	43.7
	25-35	97	43.7	43.7	87.4
	35-50	26	11.7	11.7	99.1
	above 50	2	.9	.9	100.0
	Total	222	100.0	100.0	

(Table # 01) shows that there were 97 people who were fall in the category of 18-25, and 97 people were also fall in the category of 25-35,26 of them were fall in 35-

50 and the other 2 people were fall in the category of above 50.

Table-02: Gender of Participants					
		Frequency	Percent	valid percent	cumulative percent
Valid	Female	222	100.0	100.0	100.0

(Table # 02) shows the gender of participants. There were 222 total participants which were all females' participants, no any male participants were included in this study.

Table-03: Marital status of participants					
		frequency	percent	valid percent	cumulative percent
Valid	Single	123	55.4	55.4	55.4
	Married	99	44.6	44.6	100.0
	Total	222	100.0	100.0	

(Table # 03) shows the marital status of the participants. Demographics results of marital status shows that 123 participants were unmarried or single and 99 were married out of 222 participants.

Table-04: Qualification of participants					
		Frequency	Percent	valid percent	cumulative percent
Valid	nursing diploma	216	97.3	97.3	97.3
	surgical diploma	1	.5	.5	97.7
	Other	5	2.3	2.3	100.0
	Total	222	100.0	100.0	

(Table # 04) shows the demographic results of qualification of the participants which concluded that nursing diploma holders staff were (n=216) and frequency 97.3%, surgical diploma holder staff (n=01) and frequency 0.5% and others were (n=05) and frequency 2.3%.

Table-05: Experience of staff					
		frequency	percent	valid percent	cumulative percent
Valid	less than 1 year	16	7.2	7.2	7.2
	1-5 year	143	64.4	64.4	71.6
	6-10 year	48	21.6	21.6	93.2
	above 10 year	15	6.8	6.8	100.0
	Total	222	100.0	100.0	

Table no # 5 Shows that 7.2% (n=16) having less than one year experience .Most of the nurses 64.4 % (n-143) having 1-5 years experience, while 21.6% (n= 48) respondents have six to ten years' experience. Only 15 nurses account for (18.1%) have more than 10 years of experience.

And in last we discussed factors through there demographic view how they greatly affect our topic.

Table-06: How long do you plan to continue your employment at your current employer check one?					
		Frequency	percent	valid percent	cumulative percent
valid	up to 1 year	7	3.2	3.2	3.2
	2 to 5 years	10	4.5	4.5	7.7
	6 to 10 years	14	6.3	6.3	14.0
	10 to 15 years	116	52.3	52.3	66.2
	more than 15 year	75	33.8	33.8	100.0
	Total	222	100.0	100.0	

Table 6 shows most of the people continue in the range of 10-15 years.

		Frequency	percent	valid percent	cumulative percent
Valid	Stress	4	1.8	1.8	1.8
	Management	13	5.9	5.9	7.7
	work environment	108	48.6	48.6	56.3
	patient satisfaction	97	43.7	43.7	100.0
	Total	222	100.0	100.0	

Table#07 reflects that most of the people think there job satisfaction is greatly influenced by work environment.

		Frequency	percent	valid percent	cumulative percent
Valid	inadequate training	11	5.0	5.0	5.0
	poor management	9	4.1	4.1	9.0
	unsafe work environment	7	3.2	3.2	12.2
	work load	118	53.2	53.2	65.3
	Stress	77	34.7	34.7	100.0
	Total	222	100.0	100.0	

Table#08: Reflects the factors that affect quality care at this hospital is work load and stress.

		Frequency	percent	valid percent	cumulative percent
Valid	pre benefit package	3	1.4	1.4	1.4
	Stress	3	1.4	1.4	2.7
	Management	12	5.4	5.4	8.1
	work environment	77	34.7	34.7	42.8
	reward and appreciation	127	57.2	57.2	100.0
	Total	222	100.0	100.0	

Table#09: Shows as an employee we can increase satisfaction by working on providing healthy work environment and by reward and appreciation.

		Age	Gender	marital status	Qualification	stay_in_hospital	qc	job satisfaction
N	Valid	222	222	222	222	222	222	222
	Missing	0	0	0	0	0	0	0
Mean		1.70	2.00	1.42	1.08	2.30	4.1395	4.17
std. error of mean		.052	.000	.038	.034	.058	.05224	.047
Median		2.00	2.00	1.00	1.00	2.00	4.4286	4.35
std. deviation		.685	.000	.495	.440	.760	.68318	.619
Skewness		.684		.323	5.453	.646	-1.302	-1.282
std. error of skewness		.186	.186	.186	.186	.186	.186	.186
Kurtosis		.241		-1.918	29.444	.237	1.838	1.604
std. error of kurtosis		.369	.369	.369	.369	.369	.369	.369
Range		3	0	1	3	3	3.14	3

Table #10 description

Normality tests

Value of the data can be assessed through analyzing the normality test results. Skewness, kurtosis and histograms are an integral component of normality, which helps in sifting of normality test [19]. Scores of

job satisfaction and quality care is normally distributed in range of +1 to -1. Moreover, z score of both skewness and kurtosis is in the range of +1.96 and -1.96 and these findings indicated normality of the data.

Table-11: summary of descriptive statistics			
	Mean	std. deviation	N
Qc	4.1395	.68318	222
job satisfaction	4.17	.619	222

Descriptive analysis

Dependent variables

Quality care

Sample of 222 nurses were used to analyze the range of score. Which was 3 to as our mean and standard deviation are (m 4.1395, SD = .685).

Independent variables

Job satisfaction

Sample of 222 nurses were used to analyze the range of score. Which is 3.14 as our mean and standard deviation are (m = 4.17, SD = .619).

Table-12: summary of reliability statistics	
Cr0nbach's alpha	n of items
.957	222

Validity and reliability assessment

Table #12 shows the value of Cronbach's alpha. Cronbach's alpha is the most generally utilized measure of scale reliability [17]. Cronbach's alpha over

0.70 is thought to be the adequate pointer of inward consistency reliability. The alpha values of job satisfaction and quality care is .957 which is good

Table-13: summary of item statistics			
	Mean	std. deviation	N
Qc	4.1395	.68318	222
job satisfaction	4.1658	.61881	222

Convergent validity

Convergent validity can be established by applying factor analysis. At start complete instrument is

consisted on total 34 items. After applying factor analysis 4 items were dropped. Moreover, kmo value is above .60

Table-14: Summary of correlation matrix:

		job satisfaction	Qc
Correlation	job satisfaction	1.000	.612
	Qc	.612	1.000
kmo and Bartlett's test			
Kaiser-meyer-olkin measure of sampling adequacy.			.500
Bartlett's test of Sphericity	approx. chi-square		79.002
	Df		1
	sig.		.000

Divergent validity

The constructs are which are not supposed to be related should not be related and must be independent with a distinct identity. To maintain

construct validity divergent validity must be ensured and pair wise correlation method was adopted in this study to measure divergent validity.

Table-15: correlations

		Age	gender	marital status	qualification	stay_in_hospital	job satisfaction	Qc
Age	Pearson correlation	1	.a	.598**	.121	.492**	.237**	.036
	sig. (2-tailed)		.	.000	.116	.000	.002	.644
	N	222	222	222	222	222	222	222
Gender	Pearson correlation	.a	.a	.a	.a	.a	.a	.a
	sig. (2-tailed)
	N	222	222	222	222	222	222	222
marital status	Pearson correlation	.598**	.a	1	.003	.408**	.351**	.195*
	sig. (2-tailed)	.000	.		.971	.000	.000	.010
	N	222	222	222	222	222	222	222
qualification	Pearson correlation	.121	.a	.003	1	.383**	.048	.062
	sig. (2-tailed)	.116	.	.971		.000	.535	.417
	N	222	222	222	222	222	222	222
stay_in_hospital	Pearson correlation	.492**	.a	.408**	.383**	1	.039	.028
	sig. (2-tailed)	.000	.	.000	.000		.610	.718
	N	222	222	222	222	222	222	222
job satisfaction	Pearson correlation	.237**	.a	.351**	.048	.039	1	.612*
	sig. (2-tailed)	.002	.	.000	.535	.610		.000
	N	222	222	222	222	222	222	222
Qc	Pearson correlation	.036	.a	.195*	.062	.028	.612**	1
	sig. (2-tailed)	.644	.	.010	.417	.718	.000	
	N	222	222	222	222	222	222	222

** . Correlation is significant at the 0.01 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table-16: Correlation summary

		Qc	job satisfaction
Pearson correlation	Qc	1.000	.612
	job satisfaction	.612	1.000
sig. (1-tailed)	Qc	.	.000
	job satisfaction	.000	.
N	Qc	222	222
	job satisfaction	222	222

Table # 16 represents:
Regarding associations among job satisfaction and quality care, job satisfaction had significant positive correlation with quality care (r = 612, p <0.05)

Hypothesis Testing (Regression analysis)

Regression analysis led to analyze the connection between variable. To analyze the immediate impacts of Job Satisfaction on ward variable quality care direct. Regression is utilized to look at the estimated connections. Estimation of r square is utilized to clarify the measure of change same thing is clarified by balanced r square however in a more precise manner.

Table-17: Coefficients

Model		unstandardized coefficients		standardized coefficients	T	sig.
		B	std. error	Beta		
1	(constant)	1.326	.283		4.687	.000
	job satisfaction	.675	.067	.612	10.054	.000

a. dependent variable: qc

Table #17: present the results of main effects of job satisfaction on quality care.

Table-18: model summary

Model	R	r square	adjusted r square	std. error of the estimate	change statistics					durbin-watson
					r square change	f change	df1	df2	sig. f change	
1	.612 ^a	.374	.371	.54201	.374	101.090	1	169	.000	1.535

Table #18: Shows Results of the main affect hypotheses

a. predictors: (constant), job satisfaction

b. dependent variable: qc

As result of simple regression are displayed in (table no16). Results revealed the job satisfaction significantly predicted quality care. With beta value .612($p=.000$) showing significant positive relationship between job satisfaction and quality care. Whereas value of Δr^2 showing 37.4 % ($f=101.090$, $p < .001$) of variance caused by independent variable (job satisfaction) in dependent variable (quality care).

DISCUSSION

The results of this study revealed that there is positive relation between the nurse's job satisfaction and quality of care. In fact, these are positively correlated with each other. According to 68.5% of participants, job satisfaction of employee has direct impact on the quality of care.

The results of this study shows; participants believed that satisfaction appeared to be consequences of nurses' attitude towards their job. Also the results of this study revealed that the most important factor which is affecting the delivery of quality care is work-load followed by staff-scheduling and stress. the study which is conducted by [15] found a that there is no significant relationship between hospital stay and staffing. He also suggests that early detection and treatment of potential inauspicious incident escort to earlier discharges.

This study results found that, the most important and determinant factor of quality care is work environment. Aiken, Clarke, Sloane, Lake, and Cheney [16] Study results show that hospital with penurious work environment have 60% higher mortality rate as compared to those who have sterling work environment.

CONCLUSION

The finding of this review shows that there was a positive connection between medical caretakers'

employment fulfillment and quality of care. This review demonstrates that workload staffing stress, poor administration, and deficient preparing were elements that influence nature of care most. The findings also showed stress to be a determining factor in both nurses' job satisfaction and delivery of quality care.

Limitations of the study

During conducting my study there were following limitations ,like lack of resources ,shortage of time .data collection method is much difficult for me with the job and as well as for staff nurses from whom, i was collected data were looking much busy to doing their work on duty places and hardly gave me data on their busy work schedule. Another limitation of the study was to collect data by convenient sampling technique which gave biasness on results.

Strength of the study

This study has following strength:

- This study conducted in Pakistani context which assess impact of nurses job satisfaction on quality of care in the public hospital of Lahore Pakistan.
- This study has gathered data on nurse's job satisfaction and quality of care variables along with demographic variables.
- This study adopted questionnaire was used which have already been tested for reliability and validity.
- Large sample size 222 is also enhance the reliability of the results.
- Testing of data collector and continuous supervision during data collection phase by principal investigator was the strength to ensure the appropriate quality of data collected for this study

Recommendations for further research

The study on impact of job satisfaction and quality of care in the public hospital of Lahore Pakistan they deliver in Jinnah hospital and factors that effect on nurse's job satisfaction. So on the basis of findings the researcher recommend following:

- Hospital management should pay attention to improve employs job satisfaction. Which directly improves quality of care and patients satisfaction?
- Improving nurses work environment and providing safe and effective work place for the employees which was minimizes stress level on working places and enhanced their level of care effect on job satisfaction.
- Hospital management should be follow optimal staffing model which reduce nurses work load and stress level which directly and indirectly effects on job satisfaction and quality of care

Acknowledgement

We wish to thank to the team of Jinnah hospital of Lahore- center for informatics of data, biostatistician and faculty of the Lahore school of Nursing, The University of Lahore, Pakistan and team of publishers who give me chance to publish my study for readers.

REFERENCES

1. Kvist, T., Voutilainen, A., Mäntynen, R., & Vehviläinen-Julkunen, K. (2014a). The relationship between patients' perceptions of care quality and three factors: nursing staff job satisfaction, organizational characteristics and patient age. *BMC health services research*, 14(1), 466.
2. Hockenberry, M. J., & Wilson, D. (2014). *Wong's nursing care of infants and children*: Elsevier Health Sciences.
3. Rajeswari, T. (2011). A study to assess patients satisfaction with quality of nursing care.
4. Hamid, S., Malik, A. U., Kamran, I., & Ramzan, M. (2014). Job satisfaction among nurses working in the private and public sectors: a qualitative study in tertiary care hospitals in Pakistan. *Journal of multidisciplinary healthcare*, 7, 25.
5. Association, A. N. (2010). *Nursing's social policy statement: The essence of the profession*: Nursesbooks.org.
6. Burhans, L. M., & Alligood, M. R. (2010). Quality nursing care in the words of nurses. *Journal of advanced nursing*, 66(8), 1689-1697.
7. Kvist, T., Voutilainen, A., Mäntynen, R., & Vehviläinen-Julkunen, K. (2014b). The relationship between patients' perceptions of care quality and three factors: nursing staff job satisfaction, organizational characteristics and patient age. *BMC health services research*, 14(1), 1.
8. Janicijevic, I., Seke, K., Djokovic, A., & Filipovic, T. (2013). Healthcare workers satisfaction and patient satisfaction—where is the linkage? *Hippokratia*, 17(2), 157.
9. Zimmermann, S. (2014). The Effect of a Professional Practice Model on Clinical Nurses' Perceptions of Their Practice Environment and Job Satisfaction on Medical and Medical-surgical Units.
10. Brown, R. (2016). Determining the Relationship Among Change Fatigue, Resilience, and Job Satisfaction of Hospital Staff Nurses.
11. Morsy, S. M., & Sabra, H. E. (2015). Relation between quality of work life and nurses job satisfactionatassiut university hospitals. *Al-azhar assiut medical journal*, 13(1).
12. Chang, W. Y., Ma, J. C., Chiu, H. T., Lin, K. C., & Lee, P. H. (2009). Job satisfaction and perceptions of quality of patient care, collaboration and teamwork in acute care hospitals. *Journal of advanced nursing*, 65(9), 1946-1955.
13. Butawa, N. (2012). Assessment of health workers job satisfaction and its effect on health care provision in a tertiary hospital in zaria, northern nigeria. *ahmadu bello university, zaria*.
14. Hall, L. M., Doran, D., & Pink, L. (2008). Outcomes of interventions to improve hospital nursing work environments. *Journal of Nursing Administration*, 38(1), 40-46.
15. Voepel-Lewis, T., Pechlavanidis, E., Burke, C., & Talsma, A. N. (2013). Nursing surveillance moderates the relationship between staffing levels and pediatric postoperative serious adverse events: A nested case-control study. *International journal of nursing studies*, 50(7), 905-913.
16. Aiken, L. H., Clarke, S. P., Sloane, D. M., Lake, E. T., & Cheney, T. (2008). Effects of hospital care environment on patient mortality and nurse outcomes. *The Journal of nursing administration*, 38(5), 223.
17. Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology*, 78(1), 98.
18. Aron, S. (2015). *Relationship between Nurses' Job Satisfaction and Quality of Healthcare They Deliver*.
19. Munro, B. H. (2005). *Statistical methods for health care research (Vol. 1)*. Lippincott Williams & Wilkins.