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Influence of Supportive Leadership on Nursing Clinical Decision making in Critical Care Units at Tertiary Care Hospital Lahore

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Abstract

Introduction: This study aims to provide more insight on the ideas of whether the supportive leadership is able to influence employees' decision making and how leaders enhance their work group effectiveness as well as encourage work group member retention that will strengthen bottom-line performance. A sample of 161 respondents was chosen through convenience sampling technique. The data were collected from employees working in the tertiary care hospital. **Methodology:** The data collection tools will be used for this project are Supervisory Support Scale (SSS) and demographic variables developed by Mc Gilton in 2010.Demographic variable: Demographic variable involves Age, Gender, Experience, Qualification, and Department. Supervisory Support Scale (SSS): The 15-items likert scale will be used to collect data from nurses who are working in critical care unit. The nurses will require indicating their opinions by circle from 1=Never, 2=Seldom, 3=occasionally, 4=Often, 5=Always (McGilton, 2010). Dependent tool: A clinical decision-making questionnaire with a scale of 27 items was used to collect data. Clinical decision making scale: A clinical decision-making scale of 27 items will used to assess the frequency of decision-making. Each item had a four-point likert scale (1 = Never: 2= rarely; 3 = Sometimes; 4= Always) (Austin, 2010). Results: Pearson Correlation analysis and Multiple Linear Regression analysis were used to test the hypotheses. The results revealed employees' working performance was positively influenced by directive, supportive, participative and achievement-oriented leadership styles. **Results:** positive linear correlation between Supervisory Support Scale and Nurses decisions at clinical area and the p=.155. **Conclusion:** Majority of the nurses in critical care units are females and most lie in the age bracket of23 to 40 years. More than half of the nurses in critical care units have professional qualifications of diploma in general nursing and above and majority is appointed at registered nurse levels. There is moderate decision-making among nurses and that acquiring CVP readings, collecting bronchial cultures and conducting history taking & performing physical examination scored the highest as the decisions most commonly made and performed.

I. Chapter

Introduction

Background of study

Nursing profession known as a noble profession in all over the world. Clinical decision making is an essential component of professional nursing care. Nurses' ability to make effective clinical decisions is the most important factor affecting the quality of care.

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Nurses make two types of decisions related to practice and patient care decision that affect direct patient care, and condition of work decisions that affect the work environment or group of patients.

The role and influence of leadership is becoming increasingly important in decision making. Nurse Managers need to continue to provide leadership to their staff to achieve patient, nurse, and unit goals. Involving staff in decision that directly or indirectly affect patient care is one leadership strategy used by nurse managers to achieve goals (Dorgham & Al-Mahmoud, 2013).

Decision Making: The practice of critical care often involves the need to make rapid judgments in high-risk and dynamic situations. Situations calling for quick action are almost entirely guided by pattern recognition. Less commonly, patients present with a variety of findings that are hard to assemble into a coherent single diagnosis, and problems are worked on individually while more deliberate acquisition and organization of information takes place. Decision making is a pathway to monitor the results of conclusions reached by intuition (Lighthall & Vazquez-Guillamet, 2015).

Decision making is described in the literature interchangeably and uses a number of terms such as clinical judgment, decision making and clinical reasoning. While these terms are used interchangeably, they have been described as "a choice made by a practitioner from a number of alternatives" Clinical decision making is a complex process that requires nurses to be knowledgeable, have access to an appropriate information sources and work within a supportive environment (Maharmeh, Alasad, Salami, Saleh, & Darawad, 2016).

Critical care unit: Critical care services meet the needs of patients facing an immediate life-threatening health condition specifically, that in which vital system organs are at risk of failing. Using advanced therapeutic, monitoring and diagnostic technology, the objective of critical care is to maintain organ system functioning and improve the patient's condition such that his or her underlying injury or illness can then be treated (Clory & Hood, 2015).

Importance of Decision making at clinical care unit site: The critical care nurses were able to respond to the patient's health situation in a continuous manner to prevent patient's case deterioration. It is generally accepted that nurses work toward providing the best outcomes of care and treatment through the implementation of evidence-based practice. The decision making process is influenced by many factors, in particular the nurses' clinical experience and nurses' interpretation of the available evidence derived from the patient (Maharmeh et al., 2016).

In 2016 Maharmeh stated that the nurses consider critically ill patients to be vulnerable and powerless. In more difficult situations where the decision might carry the risk of provoking clinical or ethical controversy, a joint approach of decision-making is usually applied mainly between the nurse and the doctor. In such situation, the critical care nurses consider themselves as the patient advocate who is there to protect the patient against existing or potential harms. In addition, the nurses see the patients' families as a support system that would have an advocate role as well (Maharmeh et al., 2016).

Newly registered nurses have limited experience with health care practice and yet are required to make clinical decisions after only a brief orientation period. While many novices can adapt to the demanding environment involved with clinical practice, employers reported that a large portion of novices are inadequately prepared; nearly one out of two novices were involved in errors of nursing care. Furthermore, only 20% were satisfied with the novices' clinical-decision-making abilities (Saintsing, Gibson, & Pennington, 2011).

Decision making in organization: Decision making in organization is an ongoing process. In that regard, there is need for future research on leadership decision making. Thus, the leadership ability to understand the factors that influence decision making process in their business is important and a major key to understanding what decisions are made for the progress of the organization (Ejimabo, 2015).

Factors affecting on decision making

Experience: clinical experience prepares nurses to be able of "doing" as well as "knowing" the clinical principles of clinical decision making. Development of decision-making skill can be impeded by limited practical experience and lack of opportunity to actually make decisions.

An important attribute that influences decision making is the decision maker's level of expertise, with experts considered superior decision makers making decisions that are faster and more accurate (Bakr, Sherif, Eid, & ELshal, 2013).

Experience provided know-how and routine and made them feel certain. With a long career have seen a lot of trends and opinions have learned from it and remain nuanced in the face of a new 'hype'. Experience also has another dimension sometimes keep negative experiences in mind, resulting in more defensive management when similar situations arise. A midwife reported that she was influenced by her own childbirth experience in making clinical decisions (Bharati & Chaudhury, 2004).

Qualification: Organizational features of nursing care, from better patient-to-nurse staffing ratios to supportive work environments and better educated nurses, are associated with improved nurse wellbeing and better patient outcomes. In addition, the study conclusions that nurse qualifications are related to patient mortality can influence further decision making on the European nursing qualification structure which is positioning nurse education at the Bachelor degree level. While countries have made progress, there is still great diversity and differences in the pace with which they have sought to transform their nurse training systems from being vocationally-based to academically base. Moreover, some countries lack clinical career paths that are necessary to motivate advanced education while others do not differentiate between the roles of higher educated and intermediate educated nurses in practice (Afzal, Waqas, Farooq, & Hussain, 2016).

Age and Gender: The process of decision making is one of the most complex mechanisms of human thinking, as various factors and courses of action intervene in it, with different results. In this study, the influence of gender and age in the importance allocated to several factors in the decision process was investigated from a naturalistic perspective. Regarding age, many studies within the naturalistic approach have been carried out with adults and, to a lesser extent, with youths and retired persons. Despite this, the variable age should be taken into account, especially when attempting to investigate from a naturalistic perspective, because this focus is specifically based on subjects' experience and competence, which are normally acquired with age (Gardner & Steinberg, 2005).

Leadership style: Leadership is discovered to be a very significant part in building an effective and successful organization. Due to the past complex challenges, leaders nowadays should be able to act differently according to the environment demands (Sakiru, D'Silva, Othman, Silong, & Busayo, 2013).

Nurses face diverse challenges while providing the heath care facilities, so, self-confidence and strong believe on the self-capabilities help them to cope with these challenges. Thus, employee's self-esteem plays a crucial role in the efficient health care services. Moreover, self-esteem is associated with the encouragement of head nurses and it ultimately influences the patient care (McGrath, Taenzer, Karon, & Blike, 2016).

Supportive Leadership: Leadership is discovered to be a very significant part in building an effective and successful organization. Due to the past complex challenges, leaders nowadays should be able to act differently according to the environment demands (Sakiru et al., 2013).

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A study conducted in Pakistan in 2015 to know that which leadership styles are predictive of their employee performance, hospital leaders can maximize their efforts of retaining high performing staff and raise the perception of a highly effective organization. Researchers have agreement that transformational leadership styles have more positive effect on employee performance than transactional leadership. Transformational/supportive leadership can perform better in highly organic environment where focus is on competitive advantages. Results of this study also explored that the impact of transactional leadership was not much stronger as compare to transformational leadership on job performance (Rasool, Arfeen, Mothi, & Aslam, 2015).

Supportive leadership Impact on subordinates: A study published in 2015 conducted in Lahore, Pakistan and the author suggested that the supportive leadership style has significant and positive influence on the

nurse's self-esteem. Therefore, healthcare sector should implement the supportive leadership style to enhance the nurse's self-esteem, so that the efficient and effective health care services can be provided to the public (Rasool et al., 2015).

Supportive leadership style has been found to have the second strongest impact towards the employees working performance in this research. The leaders who have supportive leadership will more concern about the employees' wellbeing and personal needs. This leadership style will makes the leaders to be more friendly and approachable for employees. Hence, this will influence the employees to put more effort when performing their tasks hence better result can be achieved (Sam, Ng, Koh, Lau, & Lew, 2014).

Leadership styles will control the employee behavior towards the customer and product as well as influence the employee performance (Nwibere, 2013).

Supportive leadership impact on quality of care: The Leadership styles play an integral role in enhancing quality measures in health care and nursing. Impact on health-related outcomes differs according to the different leadership styles, while they may broaden or close the existing gap in health care. Health care organizations need to ensure technical and professional expertise, build capacity, and organizational culture, and balance leadership priorities and existing skills in order to improve quality indicators in health care and move a step forward (Sfantou et al., 2017).

Nursing is a people centered profession and therefore the issue of leadership is crucial for success. Nurse Managers 'leadership styles are believed to be important determinant of nurses' job satisfaction, retention and productivity. Managers used varying leadership styles depending on the situation but were more inclined to the supportive leadership style followed by the achievement-oriented leadership style and participative leadership style (Asamani, 2015).

Supportive leadership impact on organization: Leadership style of the organization greatly influences the performance and organizational output. Organization will function effectively when management employs a proper leadership styled. Therefore harmony should be created between workers, management and the task environment (Ukaidi, 2016).

Supportive leadership has proven to be particularly popular and widely studied because it has appeared to be extremely important to modern work and modern organizations. it can be concluded that effective leadership is one of the most crucial factors that lead an organization towards success. Nowadays the key challenge for the modern organization is to recognize the effects of strong leadership upon the nursing performance and success of the organization (Mah'd Alloubani, Almatari, & Almukhtar, 2014).

The supportive leaders encourage subordinates to put in extra effort and to go beyond what they (subordinates) expected before. Transformational leaders achieve the greatest performance from subordinates since they are able to inspire their subordinates to raise their capabilities for success and develop subordinates‟ innovative problem solving skills. As expected, relational analysis found that all transformational leadership behavior has a strong positive correlation with organizational performance (Koech & Namusonge, 2012).

Relationship between leadership and decision making: Leadership and its styles have significant effects in small and largest organization. These styles affect everyone from senior to the newest manager. Furthermore, leadership style may affect the decision making style and skills of manager which is a key feature of nurse role in health care organizations (Thabet, Eman, Abood, & Morsy, 2017).

Every organization or institution has its set goals, mission and objectives. Leadership and decision making style largely depend on the goals and mission. Despite that, there is good relationship between the administrators and the subordinates who emphasized collaboration between administrators and staff to gain consensus in making decisions (Kayode, Mojeed, & Fatai).

Gap analysis

Decisions made by Critical Care Nurses have a direct and immediate impact upon the well being and indeed, the survival of the patients under their care. There is an established association between quality of patient outcomes and nurses decision making and that a way to enhance the quality of patient outcomes is to increase nurses' participation in decision making regarding nursing interventions (Hauser et al., 2015).

There are number of issues discover by media about the mishaps in public or private health sector due to mismanagement and delay and poor decisions by medical team. It is estimated that up to 65% of adverse events could have been prevent had nurses made better decisions (Brennan, 2004).

Different authors discuss the number of factors that effects the decision making but in the light of literature review it is found that there is little research has been done regarding the influence of supportive leadership on clinical decision making. So it is need to be addressing the relationship between supportive leadership and decision making in critical care units among nurses in Pakistan.

Research Problem

In study area it is observed that the nurses suffered from difficulties to make decision confidently while they are going to provide nursing care or nursing intervention to the patient. In critical area nurses make decision immediately to manage the critical condition of patient. Leadership style has been found to have the second strongest impact towards the employees working performance in this research (Sam et al., 2014). So it is need to be addressing the relationship between supportive leadership and decision making in critical care units among nurses in Pakistan.

Improved clinical decision making lead to improved patient care outcomes including high quality care, decreased length of hospital stay by patients, decreased costs of health care, patient and their relatives' satisfaction and improved professional image.

For example if a patient on ventilator and suddenly the endotracheal tube found to be misplaced and on duty doctor and nursing leader is not on the station. In this situation on duty nurses must be managed immediately without any delay or whether waiting for doctor even nursing manager. In this scenario if a nurse will not do like this the patient may be expired and if the manager is supportive the nurses do this without any fear such as incident or non compliance report.

Research Purpose

The purpose of this study is to determine the influence of supportive leadership on nursing clinical decision in critical care unit at tertiary care hospital Lahore.

Research question

What is the influence of supportive leadership and nursing clinical decision making in critical care unit at tertiary care hospital Lahore Pakistan?

Significance of the study

Patients: One of the most compelling arguments for the study of clinical decision making is the potential benefit for the patient. Patients are the recipients of the care provided by nurse decision makers.

Health Care Provider: Improved understanding of decision making may result in improved decisions in the areas of assessment, planning, and intervention. The study finding, will help the health care provider to think positively and display positivism in their hospital environment in this way, they will begin to feel better about their career.

Organization: The Finding of the study might be helpful for the organization to develop the strategies to improve leadership skills through training session, workshop, and seminar in result decision making skills of nurses will be improve and ultimately this will improve the working environment and quality of care. It will be suitable for the hospital management to take necessary steps to find the weak factors which produce poor decision making in critical care units and take suitable remedial steps to control and prevent adverse events.

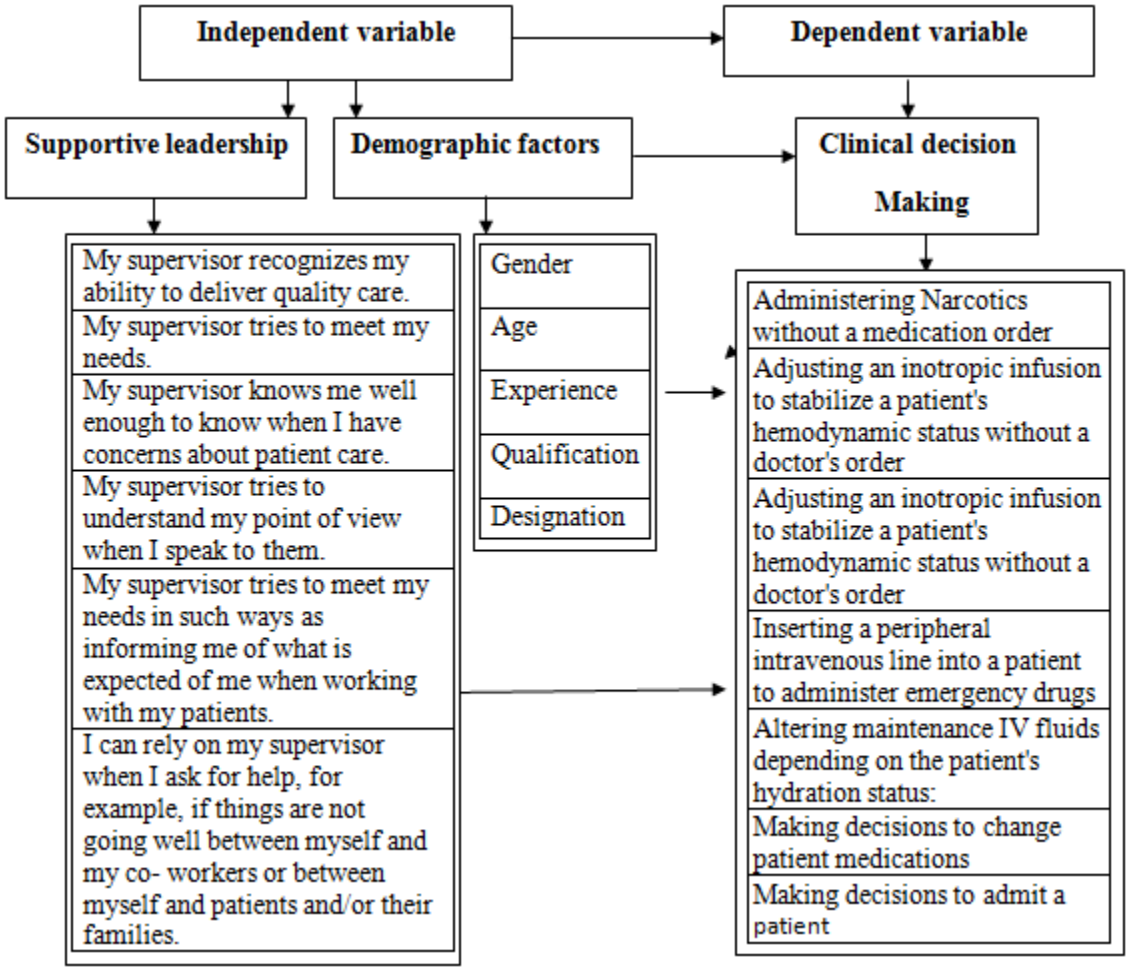
The result cans also assist the organization to better understand how nurses work life and productivity affected by the decision making and supportive leader ship.

Policy Maker: The study finding will help policy maker to understand preferred reduce the influence of nursing manager action on nurse's decision making process.

Future Research: The result of this study will give direction to the future researcher to utilize this study as a literature and guidance. Additionally study will help them to identify the study gap.

Conceptual framework

Model by Kyalo (2008) of Interactive relationships between variables affecting clinical decision-making is adopted. The model suggested that clinical decision making in critical care units is influenced by many factors including supportive leadership, and demographic factors such as, clinical experience, designation, gender, age and qualification among nurses (Kyalo, 2008).



Interactive relationships between variables affecting clinical decision-making

Variables of Study

Independent variable: Supportive leadership, Demographic factors.

Dependent variable: Clinical decision making.

Conceptual Definition

Clinical Decision making: Clinical decision making applies clinical judgment to select the best possible evidence base option to control risks and address patient's needs in high quality care for which you are accountable (Standing, 2017).

Leadership: Leadership is the art of mobilizing others to want to struggle for the shared aspirations (Rost, 1993).

Supportive leadership: A supportive leader attempts to reduce employee stress and frustration in the workplace (Einarsen, Aasland, & Skogstad, 2007).

Operational Definition:

Clinical Decision making: A systematic cognitive process in which the nurse who are working in Critical care unit identify, evaluate the problem and come to conclusion and select an option in tertiary care hospital.

Leadership: Art of mobilizing the nurses, working in tertiary care hospital to achieve the goal at tertiary care hospital.
Supportive leadership: An action of leaders to reduce stress and frustration of nurses working in critical care units at tertiary care hospital.

II. Chapter

Review of Literature

The underlying purpose of this project is to determine the effects of supportive leadership and demographic data on staff nurses at clinical area. The literature review was conducted to determine the variables that affects on staff nurse regarding the decision making. The below mentioned studies were conducted in different setting to assess the factors that's effects on decision making among nurses.

Supportive leadership

A study published in 2012 and conducted in Kenya regarding supportive leadership and the results revealed that the Correlations between the transformational-leadership factors and organizational performance ratings were high ($P < .05$), whereas correlations between the transactional-leadership behaviors and organizational performance were relatively low $P < .05$). As expected, laissez-faire leadership style is not significantly correlated to organizational performance (Koech & Namusonge, 2012).

A study conducted in 2015 regarding the leadership styles of Nurse Managers and how they influence nursing staff outcomes, namely job satisfaction, intentions to stay and productivity in the Ghanaian context and Results revealed that the there is significant negative correlation between directive leadership style and staff level of job satisfaction $p < 0.001$. Furthermore, supportive leadership style of Nurse Managers was positively correlated with staff levels of job satisfaction $p < 0.001$. Similarly, participative leadership showed a positive and significant but moderate association with staff job satisfaction levels $p < 0.001$ (Asamani, 2015).

The impact of leadership on subordinates: A study conducted in Lahore Pakistan in 2016 regarding the impact of leadership on nurses self esteem and the results revealed that the beta value of .635 which emphasizes that transformational leadership style has strong influence on the nurse's self-esteem. So, 63.5 % of the variation in the nurse's self-esteem has explained by the transformational leadership style at the significant level ($p<0.5$). However, beta value of .514 emphasizes that one unit increase in the transformational leadership style will cause .514 increase in the nurse's self-esteem (Afzal et al., 2016).

Another study conducted in 2015 in Pakistan and the results revealed that the significant relationship between supportive leadership and employ performance and the $p = 0.01$ (Rasool et al., 2015).

Same et al conducted a study in 2014 and they found that supportive leadership style had a significant relationship with employees working performance and P-value <0.0001 which is less than 0.05 (Sam et al., 2014).

In 2016 a study conducted on supportive leadership impact on nurses' retention and results revealed that the Nurse Managers used different leadership styles depending on the situation, but were more inclined to the supportive leadership style, followed by the achievement-oriented leadership style and participative leadership style. The nursing staff exhibited moderate levels of job satisfaction.

The nurse managers' leadership styles together explained 29% of the variance in the staff job satisfaction. The intention to stay at the current workplace was low 2.64 out of 5 among the nursing staff. More than half 51.7% of the nursing staff intended to leave their current workplaces, and 20% of them were actively seeking the opportunities to leave. The nurse managers' leadership styles statistically explained 13.3% of the staff intention to stay at their current job position (Asamani, Naab, & Ofei, 2016).

A study conducted in 2015 and the results revealed that the team administration has an integration of institutional performance concern with the same time had high concern for people. Subordinates are motivated to accomplish possible high performance in terms of quality, quantity, and personal satisfaction. Participation and sharing are created with people who are able to successes in managing their individual efforts for the achievement of organization goals that are both sound (Al-Shudaifat, 2015).

Decision making at critical care unit: A Study conducted in 2016 regarding nurses involvement and perception in decision making regarding patient care among nurses, doctors and technicians and results revealed that the questionnaire return rate was higher for physicians than technicians $p = 0.0258$. A perceived lack of voice was reported in all three professional categories at varying rates that were lower for physicians than for nurses and nursing technicians $p < 0.00001$ there was no difference between the latter $p = 0.7016$. In the three professional categories studied, three subscale items were reported. For two of the three statements, there were significant differences between physicians and nurses $p = 0.004$ and between physicians and nursing technicians $p = 0.001$ (Trotta, Scarpa, Halal, Goldim, & Carvalho, 2016).

Relationship between leadership and decision making: A study conducted in 2013 and findings of the study revealed that most of the head nurses were high in supportive leadership styles in both countries Egypt and Kingdom of Saudi Arabia and there was a significant relationship between nurses decision making autonomy (Dorgham & Al-Mahmoud, 2013).

A study conducted in 2017 and this study revealed that there were significant correlation between supportive leadership styles and decision making as positive correlation with directive style $p = 0.006$ and with analytical style $p = 0.007$, while team administration style has negative correlation with conceptual style and $p = 0.001$ and negative with behavioral style and $p = 0.041$ (Thabet et al., 2017).

A study conducted in 2013 regarding leadership style and decision making and results revealed that the academics in university may have one or more styles are dominant. They found that the conceptual and analytical styles are dominant, and the behavioral style was the least dominant style. Moreover, there are positive significant correlation between team administration style and directive decision making style and $p=0.006$) and analytical decision making style and $p=0.007$). This result may be due to the characteristics of leaders who have team administration style in which they integrate institutional performance concern with the concern for people. As in analytical style and directive styles, the leaders focused on task and technical concerns. Thus the nurse managers who have team style and directive or analytical style focused on task and performance (Ghoshal & Sainik, 2013).

Recently in the running year 2018 a study published regarding the influence of critical thinking on decision making in critical care unit (Ludin, 2018).

Another study conducted in 2017 and the scholar investigate the factors (Attitudes about physiology, woman-centeredness, shared decision-making, and collaboration with other professionals) the influence clinical decision making (Daemers, van Limbeek, Wijnen, Nieuwenhuijze, & de Vries, 2017).

In 2016 another study conducted and the other discus that how the Educational level, experience, and the total structural empowerment formal empowerment, and information empowerment influenced on clinical decision making (Wu, Yang, Liu, & Ye, 2016).

The author investigate in 2013 the influence of individual characteristics of the physiotherapist, his/her knowledge and patient perceptions on decision making (Holdar, Wallin, & Heiwe, 2013).

Even 10 year before a study conducted in 2008 and author discus about factors (Task attributes, the nature of the decision task, Attributes of decision makers, Attributes of the external context) influence the clinical decision making (Smith, Higgs, & Ellis, 2008).

III. Chapter

Methodology

Study Design

A quantitative Analytical cross-sectional study design was applied to answer research question.

Study Setting

The study was conducted in critical care units of Sheikh Zayed Hospital located at Campus Road Lahore. Data was collected from the nurses working in critical care units including Emergency, Medical Intensive Care Unit, Surgical intensive care unit, Cardiac care Unit, High dependency unit, liver transplant Intensive care unit and kidney transplant intensive care unit, Neonatal intensive care unit care, Peads intensive care unit, Operation theater recovery unit.

Study Population

Study population is 270 staff nurses who are working in critical care units at Sheikh Zayed Hospital, Lahore.

Inclusion Criteria

The inclusion criteria for this study were:

- Female registered nurses working at bedside
- Willing to participate
- More than one year experience

Exclusion Criteria: The exclusion criteria were:

- Nursing Student
- Nursing manager
- Above sixty year of age

Sampling Technique

Convenient sampling techniques will be use for this study.

Sample Size

Sample size will be calculated by using "Solvins formula".

$n=N/1+ (N) (E)^2$

N=Population 270, n=Sample size 161, E= 0.05% Margin of error

$n =N/1+ (N) (E)^2$

$n=270/1+ (270) (0.05)^2$

$n=270/1+ (270) (0.0025)$

$n= 270/1+0.675$

$n= 270/1.675$

$n=161$

The sample size for this study was 161.

Ethical Consideration/Institutional Review Board

- Written permission was taken from the Ethical committee of LSN department in University of Lahore.
- Permission was taken from the Chief Nursing Superintendent of Sheikh Zayed Hospital Lahore.
- All the participants were informed about the purpose of the study and have to sign written consent to participate in the study.
- Subjects have freedom to leave the study at any time.
- All information and collected data was kept confidential by principle investigator.
- The subjects were informed that there are no disadvantages or risk on the procedure of the study.

Data Collection Instrument and Tools

Independent tool

The data collection tool used for this project was Supervisory Support Scale (SSS) and demographic variables developed by McGilton in 2010.

Demographic variable: Demographic variable involves Age, Gender, Experience, Qualification, and Department.

Supervisory Support Scale (SSS): The 15-items likert scale was used to collect data from nurses who are working in critical care unit. The nurses will require indicating their opinions by circle from 1=Never, 2=Seldom, 3=occasionally, 4=Often, 5=Always (McGilton, 2010).

Dependent tool

A clinical decision-making questionnaire with a scale of 27 items was used to collect data.

Clinical decision making scale: A clinical decision-making scale of 27 items was used to assess the frequency of decision-making. Each item had a four-point likert scale (1 = Never: 2= rarely; 3 = Sometimes; 4= Always) (Austin, 2010).

Data Analysis Method

A statistical package for social sciences SPSS version 21 was used to analyze the data. Descriptive analyses will use to describe the sample. Frequency distributions will calculate for Age, Gender, Experience, Qualification, and Department. Mean values was calculated for the various rankings given for decision performance. Kolmogorov-Smirnov and Shapiro-Wilk test was used to check the normality of data. Pearson correlation test was used for identify significant value and the relationships between demographic variable, supportive leadership and clinical decision making among nurses.

IV. Results

This study was conducted at Sheikh Zayed hospital to determine the influence of supportive leadership on nurse's clinical decision making in critical care units.

The result of this study distributed into two sections, first section is frequency, statistics of demographic factors, independent tool named supervisory support scale (SSS) and dependent tool nurse's clinical decisions and second section is elaborate the relationship between, supervisory support scale and nurses decisions at critical care units.

Demographic factors frequencies:

Table 1 shows that only the female 161 (100%) were participate in this study with age group 23-31 is 80 (49.7%) and 32-40 is 80 (49.7%) however majority of 129 (80.1%) participants were general nursing diploma holder, and only 24 (14.9%) and 8 (5.0%) were hold a degree of bachelor of sciences in nursing post Registered nursing and generic. Participants were working in Critical Care Units, Emergency 48 (29.8%), Medical Intensive Care Unit 24 (14.9%), Surgical Intensive Care Unit 24 (14.9%), Cardiac Care Unit 16 (9.9%), High Dependency Unit 16 (9.9%), Kidney Transplant Intensive Care Unit, 8 (5.0%), Neonatal intensive care unit care 8 (5.0%), Peads Intensive Care Unit 8 (5.0%), Operation Theater Recovery 9 (5.6%). Frequency percentage of experience of participants and the results were 1-9 years 73 (45.3%) and 10-18 years 88 (54.7%).

Table 1

Demographic Variable		Frequency	Valid Percent
Gender:	Female	161	100.0%
Age:	23- 31 Years	80	49.7%
	32 – 40 Years	81	50.3%
	Total	**161**	**100.0%**
Qualifications:	General Nursing (Diploma)	129	80.1%
	Bachelor of Science in Nursing (Post RN)	24	14.9%
	Bachelor of Science in Nursing (Generic)	8	5.0%
Experience:	1–9 Years	73	45.3%
	10 – 18 Years	88	54.7%
	Total	**161**	**100.0%**
Department:	Emergency	48	29.8%
	Medical Intensive Care Unit	24	14.9%
	Surgical intensive care unit	24	14.9%
	Cardiac care Unit	16	9.9%
	High dependency unit	16	9.9%
	Kidney transplant intensive care unit,	8	5.0%
	Neonatal intensive care unit care,	8	5.0%
	Peads intensive care unit	8	5.0%
	Operation theater recovery	9	5.6%
	Total	161	100%

Demographic factors Statistics:

Table 2 show that mean, median, mode, standard deviation and variance of gender, age, experience, departments and qualification of the participants mean is (1.00, 1.50, 1.55, 3.69, 1.25) respectively, median is (1.00, 2.00, 2.00, 3.00, 1.00), mode is (1. 2, 2, 1, 1), standard deviation is (.00., .502, .499, 2.825, .537) and variance is (.00, .252, .249, 2.825, .537) respectively.

Table 2

Statistics	Gender of participant	Age of participant	Experience of participant	Department of participant	Qualification of participant
N	161	161	161	161	161
Mean	1.00	1.50	1.55	3.69	1.25
Median	1.00	2.00	2.00	3.00	1.00
Mode	1	2	2	1	1
Std. Deviation	.000	.502	.499	2.825	.537
Variance	.000	.252	.249	7.978	.288

Note: N=Population, Std=Standard

Supervisory Support Scale frequency

Table 3 shows the participants response on the items of supervisory support scale and frequency of participants from never to always and the result revealed that majority of 41 (25.5%) participant go with never, 32 (19.9 %) seldom, 8 (5.0 %) occasionally, 40 (24.8 %) often, and 40 (24.8 %) were agree with always regarding the supervisor recognizes my ability to deliver quality care. 40 (24.8%) agree with seldom, 48 (29.8%) agree with occasionally, only 17 (10.6 %) participants response as often and majority 56 (34.8%) were response as always in response of item two which was My supervisor tries to meet my needs. In the response of item three which was my supervisor knows me well enough to know when I have concerns about patient care, 40 (24.8 %) agree with seldom,16 (9.9 %) occasionally, 64 (39.8 %) select often 41 (25.5 %) were agree with always.

Only the 8 (5.0%) were respond as never, 49 (30.4 %) seldom, 56 (34.8%) agree with occasionally, 24 (14.9 %) response as often and always respectively regarding my supervisor tries to understand my point of view when I speak to them. In the response of item five was "My supervisor tries to meet my needs in such ways as informing me of what is expected of me when working with my patients" 40 (24.8%) participants agree with never, 48 (29.8%) seldom, 49 (30.4%) occasionally, only 8 (5.0%) agree with often and 16 (9.9%) agree with always. In the response of item six which was "I can rely on my supervisor when I ask for help, for example, if things are not going well between myself and my co- workers or between myself and patients and/or their families" 16 (9.9%) never, 40 (24.8%) seldom, 73 (45.3%) occasionally, 24 (14.9%) often and only 8 (5%) agree with always.

In the reaction of item seven was "My supervisor keeps me informed of any major changes in the work environment or organization" only 16 (9.9%) agree with never and majority 89 (55.3%) participants agree with seldom and others 32 (19.9%) occasionally, 16 (9.9%) and minority 8 (5%) agree with always. Majority 57 (35.4%) agree with seldom, 56 (34.8%) occasionally, 48 (29.8%) were response as often in the reaction item eight "I can rely on my supervisor to be open to any remarks I may make to him/her". Item nine was "My supervisor keeps me informed of any decisions that were made in regards to my patients" and participants respond as 24 (14.9%) were agree with never, 56 (34.8%) seldom 40 (24.8%) occasionally, and

Only 8 (5%) often, 33 (20.5%) agree with always.

Item ten was "My supervisor strikes a balance between clients/families' concerns and mine" and participants respond as 24 (14%) never, 48 (29.8%) seldom, only 8 (5%) agree with occasionally, 41 (25.5%) often and 40 (24.8%) agree with always. In the reaction of question eleven which was "My supervisor encourages me even in difficult situations" 41 (25.5%) never, 48 (29.8%) seldom, 56 (34.8%) occasionally, 16 (9.9%) agree with always. In the reaction of item twelve which was "My supervisor makes a point of expressing appreciation when I do a good job" 48 (29.8%) seldom, 48 (29.8%) occasionally, 17 (10.6%) often and 48 (29.8%) agree with always.

Item thirteen was "My supervisor respects me as a person" and the participant respond as only 8 (5%) go with never, majority 57 (35.4%) agree with seldom, 32 (19.9%) occasionally, 24 (14.9%) often, 40 (24.8%) agree with always. Item fourteen was "My supervisor makes time to listen to me" and response was 40 (24.8%) never, 41 (25.5%) seldom, 24 (14.9%) occasionally, 32 (19.9%) often, 24 (14.9%) were agree with always. in the reaction of item fifteen which was "My supervisor recognizes my strengths and areas for development" only 8 (5%) agree with never, 73 (45.3%) seldom, 24 (14.9%) occasionally, 40 (24.8%) often,16 (9.9%) were agree with always.

Table 3

Sr. No	Supervisory Support Scale	1 f %	2 f %	3 f %	4 f %	5 f %	Total
1	My supervisor recognizes my ability to deliver quality care.	41 25.5 %	32 19.9 %	8 5.0 %	40 24.8 %	40 24.8 %	161 100 %
2	My supervisor tries to meet my needs.	0	40 24.8 %	48 29.8%	17 10.6 %	56 34.8 %	161 100 %
3	My supervisor knows me well enough to know when I have concerns about patient care.	0	40 24.8 %	16 9.9 %	64 39.8 %	41 25.5 %	161 100 %
4	My supervisor tries to understand my point of view when I speak to them.	8 5.0 %	49 30.4 %	56 34.8%	24 14.9 %	24 14.9 %	161 100%
5	My supervisor tries to meet my needs in such ways as informing me of what is expected of me when working with my patients.	40 24.8%	48 29.8%	49 30.4%	8 5.0%	16 9.9%	161 100%
6	I can rely on my supervisor when I ask for help, for example, if things are not going well between myself and my co- workers or between myself and patients and/or their families.	16 9.9%	40 24.8%	73 45.3%	24 14.9%	8 5%	161 100%
7	My supervisor keeps me informed of any major changes in the work environment or organization.	16 9.9%	89 55.3%	32 19.9%	16 9.9%	8 5%	161 100%
8	I can rely on my supervisor to be open to any remarks I may make to him/her.	0	57 35.4%	56 34.8%	48 29.8%	0	161 100 %
9	My supervisor keeps me informed of any decisions that were made in regards to my patients.	24 14.9%	56 34.8%	40 24.8%	8 5%	33 20.5%	161 100%
10	My supervisor strikes a balance between clients/families' concerns and mine.	24 14%	48 29.8%	8 5%	41 25.5%	40 24.8%	161 100%
11	My supervisor encourages me even in difficult situations.	41 25.5%	48 29.8%	56 34.8%	0	16 9.9%	161 100%
12	My supervisor makes a point of expressing appreciation when I do a good job.	0	48 29.8%	48 29.8%	17 10.6%	48 29.8%	161 100%
13	My supervisor respects me as a person.	8 5%	57 35.4%	32 19.9%	24 14.9%	40 24.8%	161 100%
14	My supervisor makes time to listen to me.	40 24.8%	41 25.5%	24 14.9%	32 19.9%	24 14.9%	161 100%
15	My supervisor recognizes my strengths and areas for development.	8 5%	73 45.3%	24 14.9%	40 24.8%	16 9.9%	161 100%

Note: 1=Never, 2=Seldom, 3=occasionally, 4=Often, 5=Always, f=frequency. Rows show the item number and columns show the frequency of the participants.

Supervisory Support Scale statistics

Table 4 shows that the mean, median, mode, standard deviation, and variance of the items of supervisory sport scale.

Sr.No	Supervisory Support Scale	Mean	Median	Mode	Std. Deviation	Variance
1	My supervisor recognizes my ability to deliver quality care.	3.04	3.00	1	1.573	2.474
2	My supervisor tries to meet my needs.	3.55	3.00	5	1.204	1.449
3	My supervisor knows me well enough to know when I have concerns about patient care.	3.66	4.00	4	1.113	1.239
4	My supervisor tries to understand my point of view when I speak to them.	3.04	3.00	3	1.120	1.254
5	My supervisor tries to meet my needs in such ways as informing me of what is expected of me when working with my patients.	2.45	2.00	3	1.204	1.449
6	I can rely on my supervisor when I ask for help, for example, if things are not going well between myself and my co- workers or between myself and patients and/or their families.	2.80	3.00	3	.980	.960
7	My supervisor keeps me informed of any major changes in the work environment or organization.	2.45	2.00	2	.974	.949
8	I can rely on my supervisor to be open to any remarks I may make to him/her.	3.24	3.00	2	1.224	1.497
9	My supervisor keeps me informed of any decisions that were made in regards to my patients.	2.81	3.00	2	1.338	1.790
10	My supervisor strikes a balance between clients/families' concerns and mine.	3.16	4.00	2	1.460	2.132
11	My supervisor encourages me even in difficult situations.	2.39	2.00	3	1.163	1.352
12	My supervisor makes a point of expressing appreciation when I do a good job.	3.40	3.00	2[a]	1.201	1.442
13	My supervisor respects me as a person.	3.19	3.00	2	1.292	1.669
14	My supervisor makes time to listen to me.	2.75	2.00	2	1.411	1.991
15	My supervisor recognizes my strengths and areas for development.	2.89	2.00	2	1.138	1.295

Note: Std=Standard, Rows show the item number and columns show the frequency of the participants.

Nurses decisions at clinical area frequency:

Table 5 shows the frequency of participants in order to items of nurses clinical decisions. Total161 (100%) as sample responds and results are, in the reaction of item one which was "Administering Narcotics without a medication order". the majority of participants 89 (55.3%) agree with never, 48 (29.8%) rarely, 24 (14.9%) some times and o percent response as always. the item two was "Adjusting an inotropic infusion to stabilize a patient's hemodynamic status without a doctor's order" and the participants respond as 24 (14.9%) never, 65 (40.4%) rarely, 32 (19.9%) sometimes 40 (24.8%) agree with always. "Inserting a peripheral intravenous line into a patient to administer emergency drugs" was an item three and participants respond was 17 (10.6%) never, 65 (40.4%) rarely, 32 (19.9%) sometimes and 40 (24.8%) agree with always. In the reaction of item four which was "Altering maintenance IV fluids depending on the patient's hydration status?" and participants respond as 32 (19.9%) never, 65 (40.4%) rarely, 24 (14.9%) sometimes, 40 (24.8%) agree with always.

In the reaction of item five that was "Diagnosing the patient's condition" and the participant respond was 48 (29.8%) agree with never, majority 72 (44.7%) respond as rarely and only 41 (25.5%) and no even 01 agreed with always. "Making decisions to change patient medications" was item six and the frequency of participants' response was 64 (39.8%) go with never, majority 81 (50.3%) rarely, only 16 (9.9%) were agree with sometimes and no one was agreed with always.

In the response of item seven that was "Making decisions to admit a patient" and the frequency was 25 (15.5%) agree with never, majority of participants 80 (49.7%) respond as rarely and 48 (29.8%) sometimes, only 8 (5%) agree with always. "Discharging a patient from the unit" was item eight and 17 (10.6%) never and only 8 (5%) agree with

rarely, 56 (34.8%) sometimes and majority of participants 80 (49.7%) respond as always. In the reaction of item nine which was "Providing discharge information to the patient and / or family" only 24 (14.9%) respond as never, majority 65 (40.4%) go with rarely and 32 (19.9%) sometimes, 40 (24.8%) agreed with always.

"Discussing patients' condition and prognosis with patient and / or relatives" was item number ten and the frequency of the participants was 17 (10.6%) never, 48 (29.8%) rarely, and majority of 96 (59.6%) participants agreed with sometimes and no one agreed with always. In the reaction of item eleven that was "Assessing patients" clinical status" and the participants respond was in favor as only 8 (5%) go with never, majority 89 (55.3%) rarely, 24 (14.9%) sometimes and 40 (24.8%) agree with always. in the reaction of item twelve 24 (14.9%) never, majority 73 (45.3%) rarely and 64 (39.8%) agreed with sometimes. "Obtaining blood samples for laboratory tests "was item thirteen and 33 (20.5%) respond as never, 48 (29.8%) sometimes and majority 80 (49.7%) agreed with always. "Collecting specimens for bronchial cultures was item fourteen 24 (14.9%) never, majority 65 (40.4%) rarely, 32 (19.9%) some times and 40 (24.8%) agreed with always. in te reaction of item fifteen that was "Acquiring central venous pressure (CVP) readings" and participants respond as 24 (14.9%) agreed with never, majority 73 (45.3%) respond as rarely, 24 (14.9%) agreed with sometimes and 40 (24.8%) agreed with always.

In the reaction of item sixteen that was "Acquiring pulmonary artery pressure (PAP) readings" and frequency of participants was 49 (30.4%) never, 32 (19.9%) rarely, 48 (29.8%) sometimes and 32 (19.9%) respond as always. item seventeen was "Acquiring pulmonary capillary wedge pressure (PCWP) readings" only 24 (14.9%) respond as never, 65 (40.4%) rarely, 32 (19.9%) sometimes and 40 (24.8%) agreed with always. item eighteen was "Evaluating hemodynamic measurements" and the participants respond as only 17 (10.5%) never, no one respond to rarely, 64 (39.8%) sometimes and 80 (49.7%) respond as always. in the respond on item nineteen the only 17 (10.6%) participants goes with never, no one select rarely 64 (39.8%) sometimes and majority 80 (49.7%) respond as always. "Performing emergency defibrillation" was item number twenty and participant respond positively as 24 (14.9%) never, 73 (45.3%) rarely, 24 (14.9%) sometimes, 40 (24.8%) agreed with always. "Decision to wean patients from ventilator" was use as item twenty one and the respond of the participants was 49 (30.4%) never, 40 (24.8%) agreed with rarely, 40 (24.8%) agreed with sometimes, and only 32 (19.9%) always.

In the reaction of item twenty two that was "Performance of endotracheal intubation" and participants respond as 49 (30.4%) never, 40 (24.8%) agreed with rarely, 40 (24.8%) agreed with sometimes, and only 32 (19.9%) always. item twenty three was "Decision to extubate a patient" the majority of participants 121 (75.2%) agreed with never, 32 (19.9%) rarely, no one agreed with sometimes and only 8(5.0%) choose the always. "Participation in medical ward rounds" was the item twenty four and frequency of participants was 24 (14.9%) never, 16 (9.9%) rarely, 57 (35.4%) sometime, 64 (39.8%) agreed with always. in the reaction of item twenty five "Teaching nursing students on critical care procedures in the unit" participants respond as 32 (19.9%) never, majority 57 (35.4%) rarely, 32 (19.9%) sometimes, 40 (24.8%) agreed with always. Last item of the tool was "Conducting history taking and performing physical examination" and the reaction of participants was 33 (20.5%) never, no one greed with rarely, 40 (24.8%) agreed with sometime and majority 88 (54.7%) agreed with always

Table 5

Sr.No	Clinical Decision-making By Nurses	1 f %	2 f %	3 f %	4 f %	Total

1	Administering Narcotics without a medication order.	89	48	24	0	161
		55.3%	29.8%	14.9%	0%	100%
2	Adjusting an inotropic infusion to stabilize a patient's hemodynamic status without a doctor's order.	24	65	32	40	161
		14.9%	40.4%	19.9%	24.8%	100%
3	Inserting a peripheral intravenous line into a patient to administer emergency drugs.	17	65	32	40	161
		10.6%	40.4%	19.9%	24.8%	100%
4	Altering maintenance IV fluids depending on the patient's hydration status.	32	65	24	40	161
		19.9%	40.4%	14.9%	24.8%	100%
5	Diagnosing the patient's condition.	48	72	41	0	161
		29.8%	44.7%	25.5%	0%	100%
6	Making decisions to change patient medications.	64	81	16	0	161
		39.8%	50.3%	9.9%	0%	100%
7	Making decisions to admit a patient.	25	80	48	8	161
		15.5%	49.7%	29.8%	5%	100%
8	Discharging a patient from the unit.	17	8	56	80	161
		10.6%	5%	34.8%	49.7%	100%
9	Providing discharge information to the patient and / or family.	24	65	32	40	161
		14.9%	40.4%	19.9%	24.8%	100%
10	Discussing patients' condition and prognosis with patient and / or relatives.	17	48	96	0	161
		10.6%	29.8%	59.6%	0%	100%
11	Assessing patients" clinical status.	8	89	24	40	161
		5%	55.3%	14.9%	24.8%	100%
12	Participation in collaborative therapeutic decisions.	24	73	64	0	161
		14.9%	45.3%	39.8%	0%	100%
13	Obtaining blood samples for laboratory tests.	33	0	48	80	161
		20.5%	0%	29.8%	49.7%	100%
14	Collecting specimens for bronchial cultures.	24	65	32	40	161
		14.9%	40.4%	19.9%	24.8%	100%
15	Acquiring central venous pressure (CVP) readings.	24	73	24	40	161
		14.9%	45.3%	14.9%	24.8%	100%
16	Acquiring pulmonary artery pressure (PAP) readings.	49	32	48	32	161
		30.4%	19.9%	29.8%	19.9%	100%
17	Acquiring pulmonary capillary wedge pressure (PCWP) readings.	24	65	32	40	161
		14.9%	40.4%	19.9%	24.8%	100%
18	Evaluating hemodynamic measurements.	17	0	64	80	161
		10.5%	0%	39.8%	49.7%	100%
19	Insertion of indwelling urinary catheter.	17	0	64	80	161
		10.6%	0%	39.8%	49.7%	100%
20	Performing emergency defibrillation.	24	73	24	40	161
		14.9%	45.3%	14.9%	24.8%	100%
21	Decision to wean patients from ventilator.	49	40	40	32	161
		30.4%	24.8%	24.8%	19.9%	100%
22	Performance of endotracheal intubation procedure.	49	40	40	32	161
		30.4%	24.8%	24.8%	19.9%	100%
23	Decision to extubate a patient.	121	32	0	8	161
		75.2%	19.9%	0%	5.0%	100%
24	Participation in medical ward rounds.	24	16	57	64	161
		14.9%	9.9%	35.4%	39.8%	100%
25	Teaching nursing students on critical care procedures in the unit.	32	57	32	40	161
		19.9%	35.4%	19.9%	24.8%	100%
26	Conducting history taking and performing physical examination.	33	0	40	88	161
		20.5%	0%	24.8%	54.7%	100%

Note: 1= Never, 2= Rarely, 3= Sometimes, 4= Always, f=frequency. Rows show the item number and columns show the frequency of the participants.

Nurses decisions at clinical area statistics

Table 6 shows the mean, median, mode, standard deviation, and variance of the items 1-26 of clinical decision making by nurse. The highest mean value 3.39 found for item ten its mean nurses easily make decision itself regarding

Discussing patients' condition and prognosis with patient and / or relatives. Then near to highest mean value is 2.29 for item eighteen and nineteen respectively that was "Evaluating hemodynamic measurements" "Insertion of indwelling urinary catheter". The lowest mean value 1.60 for item 23 that was "Decision to extubate a patient" its mean nurses are reserve to make decision to extubate a patient independently. Others item mean value suggested that the nurses are bounded or depended in different level or situations.

Table 6

Sr.No	Clinical Decision-making By Nurses	Mean	Median	Mode	Std. Deviation	Variance
1	Administering Narcotics without a medication order.	1.60	1.00	1	.736	.542
2	Adjusting an inotropic infusion to stabilize a patient's hemodynamic status without a doctor's order.	2.55	2.00	2	1.024	1.049
3	Inserting a peripheral intravenous line into a patient to administer emergency drugs.	2.19	2.00	2	.607	.369
4	Altering maintenance IV fluids depending on the patient's hydration status.	2.45	2.00	2	1.072	1.149
5	Diagnosing the patient's condition.	1.96	2.00	2	.745	.554
6	Making decisions to change patient medications.	1.70	2.00	2	.641	.411
7	Making decisions to admit a patient.	2.24	2.00	2	.773	.597
8	Discharging a patient from the unit.	3.24	3.00	4	.959	.919
9	Providing discharge information to the patient and / or family.	2.55	2.00	2	1.024	1.049
10	Discussing patients' condition and prognosis with patient and / or relatives.	3.39	4.00	4	.936	.876
11	Assessing patients" clinical status.	2.60	2.00	2	.918	.842
12	Participation in collaborative therapeutic decisions.	2.25	2.00	2	.698	.488
13	Obtaining blood samples for laboratory tests.	3.09	3.00	4	1.148	1.317
14	Collecting specimens for bronchial cultures.	2.55	2.00	2	1.024	1.049
15	Acquiring central venous pressure (CVP) readings.	2.50	2.00	2	1.025	1.052
16	Acquiring pulmonary artery pressure (PAP) readings.	2.39	2.00	1	1.119	1.252
17	Acquiring pulmonary capillary wedge pressure (PCWP) readings.	2.55	2.00	2	1.024	1.049
18	Evaluating hemodynamic measurements.	3.29	3.00	4	.918	.843
19	Insertion of indwelling urinary catheter.	3.29	3.00	4	.918	.843
20	Performing emergency defibrillation.	2.50	2.00	2	1.025	1.052
21	Decision to wean patients from ventilator.	2.34	2.00	1	1.113	1.239
22	Performance of endotracheal intubation procedure.	2.34	2.00	1	1.113	1.239
23	Decision to extubate a patient.	1.35	1.00	1	.727	.528
24	Participation in medical ward rounds.	3.00	3.00	4	1.049	1.100
25	Teaching nursing students on critical care procedures in the unit.	2.50	2.00	2	1.073	1.152
26	Conducting history taking and performing physical examination.	3.14	4.00	4	1.165	1.356

Note: Std=Standard, Rows shows the item number and columns show the statics of the items.

Frequency Tables and figures of demographic factors

Table 7 shows that only the female 161 (100%) were participate in this study as well as figure 1 shows the percentage of gender. So the results revealed that there is no or small strength of male nurses in critical care units in Lahore Pakistan.

Gender of participant

Table 7

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	161	100.0	100.0	100.0

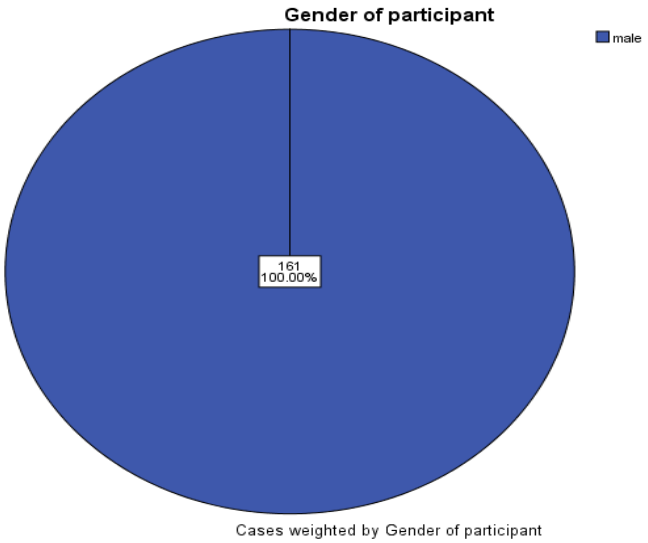


Figure 1

Table 8 shows that the participant's age group was 23-31 and frequency 80 (49.7%) and 32-40 is 80 (49.7%) and figure 2 also shows the percentage of age group.

Age of participant

Table 8

Age	Frequency	Percent	Valid Percent	Cumulative Percent
23- 31 Years	80	49.7	49.7	49.7
32 – 40 Years	81	50.3	50.3	100.0
Total	**161**	**100.0**	**100.0**	

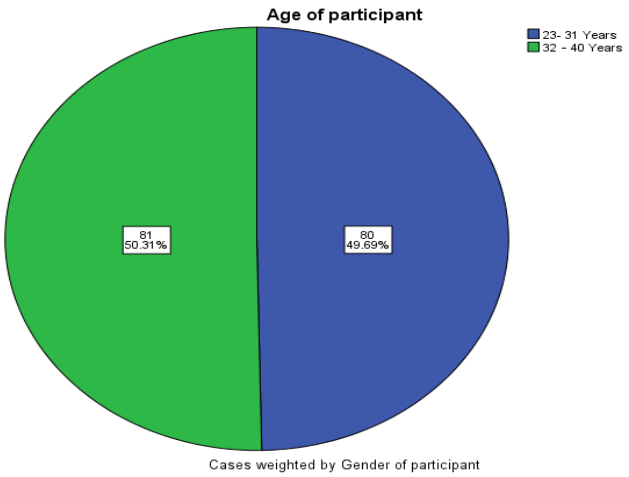


Figure 2

Table 9 shows that the frequency percentage of experience of participants and the results were 1-9 years 73 (45.3%) and 10-18 years 88 (54.7%).

Experience of participant

Table 9

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
1- 9 Years	73	45.3	45.3	45.3
10 – 18 Years	88	54.7	54.7	100.0
Total	**161**	**100.0**	**100.0**	

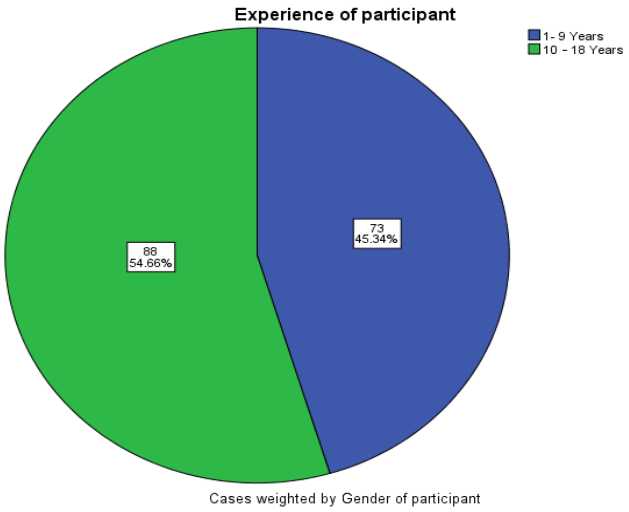


Figure 3

Table 10 shows the department's frequency percentage in which participants are working and nurses of nine Critical Care Units responded and the result is, Participants were working in critical care units, high strength of nurses found in Emergency and they respond so positively and the frequency rate was 48 (29.8%), moderately Medical Intensive Care Unit nurses respond and frequency rate was 24 (14.9%), again Surgical intensive care unit nurses rate was 24 (14.9%), Cardiac care Unit 16 (9.9%) High dependency unit 16 (9.9%), low respond rate from three department, Kidney transplant intensive care unit 8 (5.0%), Neonatal intensive care unit care 8 (5.0%), Peads intensive care unit 8 (5.0%) respectively, Operation theater recovery 9 (5.6%).

Department of participant

Table 10

Departments	Frequency	Percent	Valid Percent	Cumulative Percent
Emergency	48	29.8	29.8	29.8
Medical Intensive Care Unit	24	14.9	14.9	44.7
Surgical intensive care unit	24	14.9	14.9	59.6
Cardiac care Unit	16	9.9	9.9	69.6
High dependency unit	16	9.9	9.9	79.5
Kidney transplant intensive care unit,	8	5.0	5.0	84.5
Neonatal intensive care unit care,	8	5.0	5.0	89.4
Peads intensive care unit	8	5.0	5.0	94.4
Operation theater recovery	9	5.6	5.6	100.0
Total	**161**	**100.0**	**100.0**	

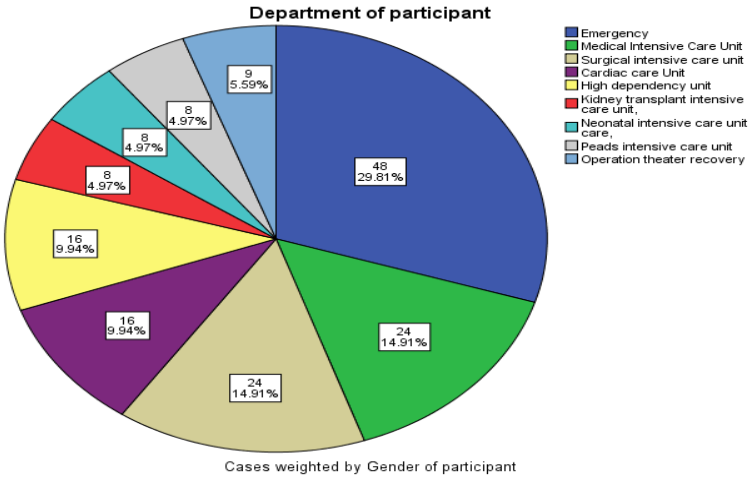


Figure 4

Table 11 shows that the majority of 129 (80.1%) participants were general nursing diploma holder, and only 24 (14.9%) and 8 (5.0%) were hold a degree of bachelor of sciences in nursing post Registered nursing and generic respectively, no any participant have the degree of master sciences in nursing and figure 5 also shows the frequency percentage.

Qualification of participant

Table 11

Qualification	Frequency	Percent	Valid Percent	Cumulative Percent
General Nursing (Diploma)	129	80.1	80.1	80.1
Bachelor of Science in Nursing (Post RN)	24	14.9	14.9	95.0
Bachelor of Science in Nursing (Generic)	8	5.0	5.0	100.0
Total	**161**	**100.0**	**100.0**	

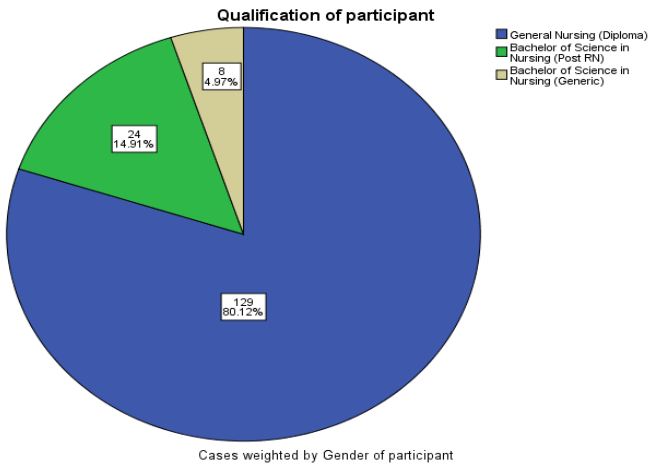


Figure 5

Normality of data of Supervisory Support Scale and nurses clinical decisions

Table 12 shows the significance of data normality and $p \leq .200$ for Kolmogorov-Smirnov and $p \leq .444$ for Shapiro-Wilk.

Table 12

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Supervisory Support Scale	.069	161	.200	.987	161	.560

Figure 6 shows that the normal distribution of data

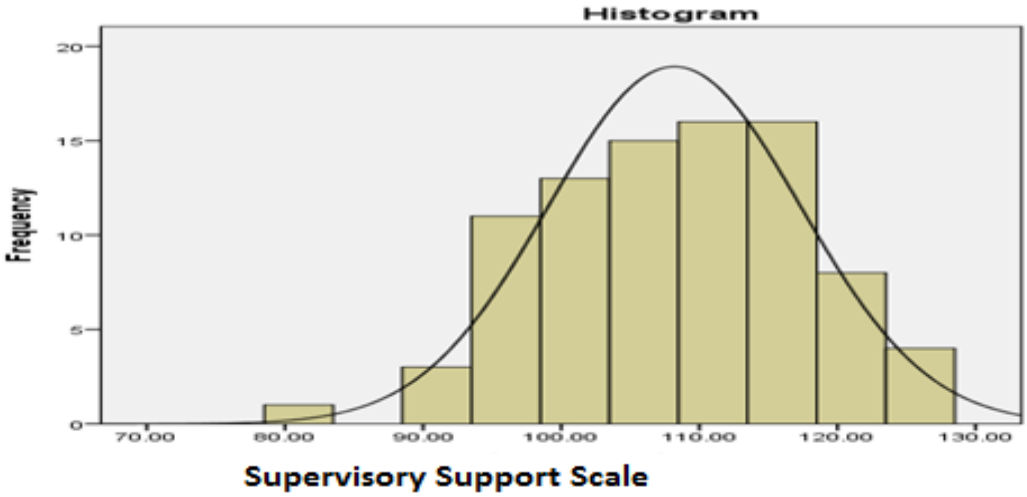


Figure 6

Table 13 shows the significance of data normality and $p \leq .200$ for Kolmogorov-Smirnov and $p \leq .444$ for Shapiro-Wilk.

Table 13

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Nurses decisions at clinical area	.142	161	.200	.987	161	.580

Figure 8 and 9 shows that the normal distribution of data

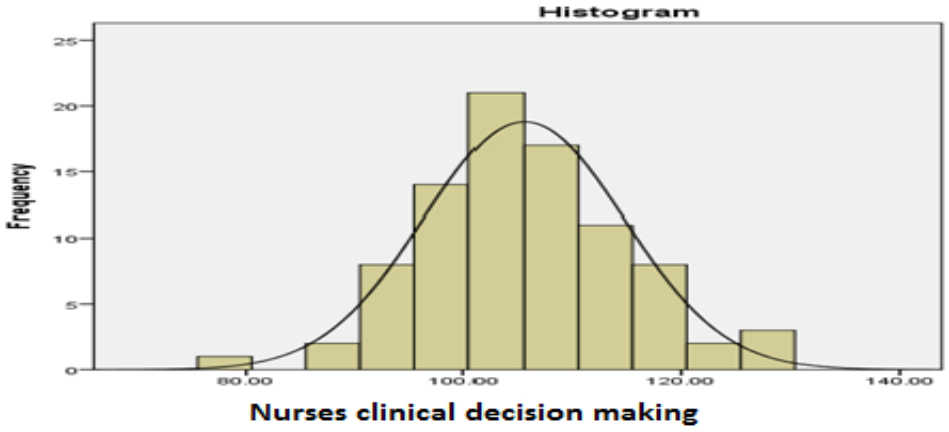


Figure 7

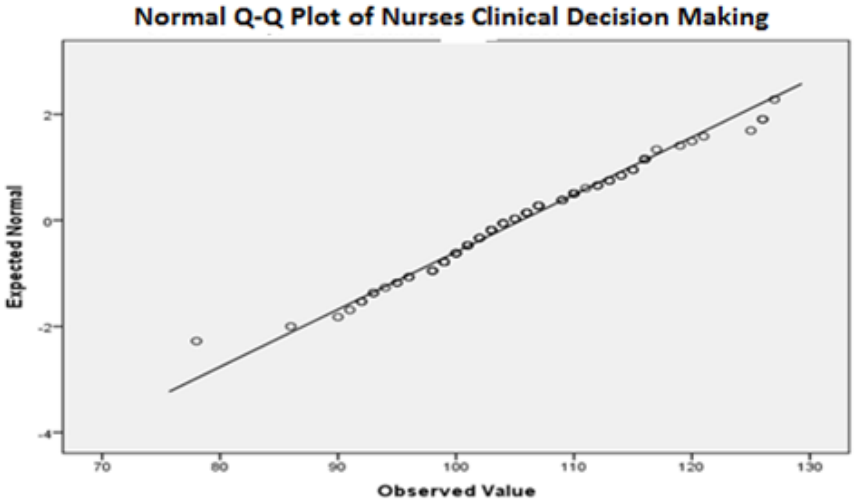


Figure 8

Relationship between supportive leadership and decision-making (correlations)

Table 14 shows that the positive linear correlation between Supervisory Support Scale and Nurses decisions at clinical area and the p=.155.

Table 14

		Supervisory Support Scale	***Nurses decisions at clinical area***
Supervisory Support Scale	Pearson Correlation	1	.103
	Sig. (2-tailed)		.155
	N	162	162
Nurses decisions at clinical area	Pearson Correlation	.103	1
	Sig. (2-tailed)	.155	
	N	162	162

V. Discussion

The focus of this study was to identify the relationship between supportive leadership and nurse's clinical decision making among critical care unit's nurses at Sheikh Zayed Hospital. The study findings show a significant positive relationship between the supportive leadership and nurse's clinical decision making. Model by Kyalo (2008) of Interactive relationships between variables affecting clinical decision-making is adopted. The model suggested that clinical decision making in critical care units is influenced by many factors including supportive leadership, and demographic factors such as, clinical experience, designation, gender, age and qualification among nurses (Kyalo, 2008).

In related studies it was discovered that it was easy to talk about leadership, but difficult to practice (Lee, Smith, & Cioci, 1993). The authors contended that becoming an outstanding leader was difficult, but within each manager is the capacity to do so. Author identified that inadequate educational preparation of nurse managers has limited their ability to become excellent leaders (Cress, 1996). A Study conducted in 2016 regarding nurse's involvement and perception in decision making regarding patient care among nurses. there were significant differences between physicians and nurses p = 0.004 and between physicians and nursing technicians p = 0.001 (Trotta et al., 2016). The demographic data in this study also revealed a variety in experience, and educational profile. Years of experience ranged from 1-20 years and the gender was deferent from others studies because only female nurses were participate in this study, and the highest educational level obtained varied, BSN, no any manager holding an MSN in nursing.

Limitations

This study found many limitations;

- Time duration was too short.
- The study design is convient sample technique.
- Likert scale questionnaire has been used in this study.
- Data collection was faced lot of issues.
- The respondents of the study have very careless attitude regarding filling questionnaire.

Participants of study have no idea about the importance of the filling questionnaire sincerely.

VI. Chapter

Conclusion and Recommendation

From the results therefore, it can be concluded that:

Majority of the nurses in critical care units are females and most lie in the age bracket of 23 to 40 years. More than half of the nurses in critical care units have professional qualifications of diploma in general nursing and above and majority is appointed at registered nurse levels.

There is moderate decision-making among nurses and that acquiring CVP readings, collecting bronchial cultures and conducting history taking & performing physical examination scored the highest as the decisions most commonly made and performed.

The research findings therefore found significant relationships between supportive leadership and decision-making and thus the null hypothesis that 'there is no significant relationship between supportive leadership and clinical decision-making' is rejected. The alternative hypothesis is therefore adopted.

Recommendation:

To actualize and improve nurses' decision making, hospital management and nurse administrators need to:

Encourage and support nurses' post basic trainings / sub-specializations to increases nurses' knowledge and skills base. Consider knowledge and skills obtained through post basic trainings and / or sub-specializations when deploying nursing staff. Enable nurses exercise clinical decision-making as taught and this be included in hospital policies and protocols. Actively support reasonable decisions made by nurses more research needs to be done to:

Identify what other aspects of the clinical environment affect decision-making by nurses. Identify other causes for deteriorating health care services in the hospital. A combination of quantitative and qualitative approaches (Triangulation approach) would presumably enhance the depth of exploration by eliciting from nurses, the factors they believe to be influencing their decision making. Identify factors that make older nurses not to undertake post basic trainings.

References

Afzal, M., Waqas, A., Farooq, A., & Hussain, M. (2016). The Impact of Transformational Leadership Style on Nurse's Self-Esteem of Public Hospitals of Lahore Pakistan. *International Journal of Social Sciences and Management, 3*(4), 287-293.

Al-Shudaifat, S. H. (2015). Leadership Styles of Principals in Relation to Islamic Teachers' Burnout in Mafraq Education District. *Review of European Studies, 7*(11), 334.

Asamani, J. A. (2015). *The Influence of Nurse Managers' Leadership Styles on Staff Outcomes in Eastern Region of Ghana.* University of Ghana.

Asamani, J. A., Naab, F., & Ofei, A. M. A. (2016). Leadership styles in nursing management: implications for staff outcomes. *Journal of Health Sciences, 6*(1).

Austin, A. R. (2010). Nurses' decision-making in different clinical environments.

Bakr, M. M., Sherif, N. M., Eid, N. M., & ELshal, S. E. (2013). Factors influencing decision making and its effect on intern students clinical performance. *World Applied Programming, 3*(2), 75-84.

Bharati, P., & Chaudhury, A. (2004). An empirical investigation of decision-making satisfaction in web-based decision support systems. *Decision support systems, 37*(2), 187-197.

Brennan, T. (2004). *The transmission of affect*: Cornell University Press.

Clory, S., & Hood, P. (2015). Canadian Gerontological Nursing Association (CGNA) Strategic Plan 2015-2018: Designing a new future.

Cress, D. L. (1996). A Study of the Leadership Practices of the First Line Nurse Manager.

Daemers, D. O., van Limbeek, E. B., Wijnen, H. A., Nieuwenhuijze, M. J., & de Vries, R. G. (2017). Factors influencing the clinical decision-making of midwives: a qualitative study. *BMC pregnancy and childbirth, 17*(1), 345.

Dorgham, S. R., & Al-Mahmoud, S. (2013). Leadership styles and clinical decision making autonomy among critical care nurses: a comparative study. *IOSR Journal of Nursing and Health Science, 1*(4), 71-83.

Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly, 18*(3), 207-216.

Ejimabo, N. (2015). The influence of decision making in organizational leadership and management activities. *Journal of Entrepreneurship & Organization Management, 4*(2).

Gardner, M., & Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood: an experimental study. *Developmental psychology, 41*(4), 625.

Ghoshal, S., & Sainik, V. (2013). Monitor and minimize corrosion in high-TAN crude processing. *Hydrocarbon Processing*.

Hauser, K., Koerfer, A., Kuhr, K., Albus, C., Herzig, S., & Matthes, J. (2015). Outcome-Relevant Effects of Shared Decision Making: A Systematic Review. *Deutsches Ärzteblatt International, 112*(40), 665.

Holdar, U., Wallin, L., & Heiwe, S. (2013). Why do we do as we do? Factors influencing clinical reasoning and decision-making among physiotherapists in an acute setting. *Physiotherapy Research International, 18*(4), 220-229.

Kayode, B. K., Mojeed, A. Q., & Fatai, I. A. Leadership and Decision-making: A Study on Reflexive Relationship Between Leadership Style and Decision-making Approach.

Koech, P. M., & Namusonge, G. (2012). The effect of leadership styles on organizational performance at state corporations in Kenya. *International Journal of Business and Commerce, 2*(1), 1-12.

Lee, V. E., Smith, J. B., & Cioci, M. (1993). Teachers and principals: Gender-related perceptions of leadership and power in secondary schools. *Educational Evaluation and Policy Analysis, 15*(2), 153-180.

Lighthall, G. K., & Vazquez-Guillamet, C. (2015). Understanding decision making in critical care. *Clinical medicine & research, 13*(3-4), 156-168.

Ludin, S. M. (2018). Does good critical thinking equal effective decision-making among critical care nurses? A cross-sectional survey. *Intensive and Critical Care Nursing, 44*, 1-10.

Mah'd Alloubani, A., Almatari, M., & Almukhtar, M. M. (2014). EFFECTS OF LEADERSHIP STYLES ON QUALITY OF SERVICES IN HEALTHCARE. *European Scientific Journal, ESJ, 10*(18).

Maharmeh, M., Alasad, J., Salami, I., Saleh, Z., & Darawad, M. (2016). Clinical Decision-Making among Critical Care Nurses: A Qualitative Study. *Health, 8*(15), 1807.

McGilton, K. S. (2010). Development and psychometric testing of the supportive supervisory scale. *Journal of Nursing Scholarship, 42*(2), 223-232.

McGrath, S. P., Taenzer, A. H., Karon, N., & Blike, G. (2016). Surveillance Monitoring Management for General Care Units: Strategy, Design, and Implementation. *Joint Commission journal on quality and patient safety, 42*(7), 293-302.

Nwibere, B. (2013). THE INFLUENCE OF CORPORATE CULTURE ON MANAGERIAL LEADERSHIP STYLE: THE NIIGERIAN EXPERIENCE. *International Journal of Business & Public Administration, 10*(2).

Rasool, H. F., Arfeen, I. U., Mothi, W., & Aslam, U. (2015). Leadership styles and its impact on employee's performance in health sector of Pakistan. *City University Research Journal, 5*(01), 97-109.

Rost, J. C. (1993). *Leadership for the twenty-first century*: Greenwood Publishing Group.

Saintsing, D., Gibson, L. M., & Pennington, A. W. (2011). The novice nurse and clinical decision-making: how to avoid errors. *Journal of Nursing Management, 19*(3), 354-359.

Sakiru, O. K., D'Silva, J. L., Othman, J., Silong, A. D., & Busayo, A. T. (2013). Leadership styles and job satisfaction among employees in small and medium enterprises. *International Journal of Business and Management, 8*(13), 34.

Sam, K. Y., Ng, K. Y., Koh, L. H., Lau, J. X., & Lew, S. D. (2014). *Leadership styles influencing employees' working performance in financial sector within peninsular Malaysia*. UTAR.

Sfantou, D. F., Laliotis, A., Patelarou, A. E., Sifaki-Pistolla, D., Matalliotakis, M., & Patelarou, E. (2017). *Importance of Leadership Style towards Quality of Care Measures in Healthcare Settings: A Systematic Review*. Paper presented at the Healthcare.

Smith, M., Higgs, J., & Ellis, E. (2008). Factors influencing clinical decision making. *Clinical reasoning in the health professions, 3*, 89-100.

Standing, M. (2017). *Clinical Judgement and Decision Making in Nursing*: Learning Matters.

Thabet, M., Eman, E., Abood, S. A., & Morsy, S. R. (2017). The effect of problem-based learning on nursing students' decision making skills and styles. *Journal of Nursing Education and Practice, 7*(6), 108.

Trotta, E. d. A., Scarpa, F. C., Halal, M. G. E., Goldim, J. R., & Carvalho, P. R. A. (2016). Health professionals' perceptions about the decision-making process in the care of pediatric patients. *Revista Brasileira de terapia intensiva, 28*(3), 335-340.

Ukaidi, C. (2016). The influence of leadership style on organisational performance in Nigeria. *Global Journal of Human Resources Management, 4*(4), 25-34.

Wu, M., Yang, J., Liu, L., & Ye, B. (2016). An Investigation of Factors Influencing Nurses' Clinical Decision-Making Skills. *Western journal of nursing research, 38*(8), 974-991.

Appendix-A

Section A: Demographics

Respond by circling (O) or ticking ( ) the most appropriate responses

Gender:	☐ Female ☐ Male	**Experience:**	☐ 1- 10 Years ☐ 11 – 20 Years ☐ 21 – 30 Years
Age:	☐ 23- 31 Years ☐ 32 – 40 Years ☐ 41 – 49 Years ☐ 50 – 58 Years	**Department:**	☐ Emergency ☐ Medical ☐ Intensive Care Unit ☐ Surgical intensive care unit, ☐ Cardiac care Unit ☐ High dependency unit ☐ Liver transplant Intensive care unit ☐ Kidney transplant intensive care unit, ☐ Neonatal intensive care unit care, ☐ Peads intensive care unit ☐ Operation theater recovery
Qualifications:	☐ General Nursing (Diploma) ☐ Bachelor of Science in Nursing (Post RN) ☐Bachelor of Science in Nursing (Generic) ☐ Master of Science in Nursing (MSN)		

Section B: Supervisory Support Scale

1=Never, 2=Seldom, 3=Occasionally, 4=Often, 5=Always

SN	Supervisory Support Scale	Never	Seldom	Occasionally	Often	Always
1	My supervisor recognizes my ability to deliver quality care.					
2	My supervisor tries to meet my needs.					

3	My supervisor knows me well enough to know when I have concerns about patient care.					
4	My supervisor tries to understand my point of view when I speak to them.					
5	My supervisor tries to meet my needs in such ways as informing me of what is expected of me when working with my patients.					
6	I can rely on my supervisor when I ask for help, for example, if things are not going well between myself and my co-workers or between myself and patients and/or their families.					
7	My supervisor keeps me informed of any major changes in the work environment or organization.					
8	I can rely on my supervisor to be open to any remarks I may make to him/her.					
9	My supervisor keeps me informed of any decisions that were made in regards to my patients.					
10	My supervisor strikes a balance between clients/families' concerns and mine.					
11	My supervisor encourages me even in difficult situations.					
12	My supervisor makes a point of expressing appreciation when I do a good job.					
13	My supervisor respects me as a person.					
14	My supervisor makes time to listen to me.					
15	My supervisor recognizes my strengths and areas for development.					

(McGilton, 2010).

Section C: Nurses decisions at clinical area

1= Never 2= Rarely 3= Sometimes 4= Always

SN	Clinical Decision-making By Nurses	Never	Rarely	Sometimes	Always

1	Administering Narcotics without a medication order.	1	2	3	4
2	Adjusting an inotropic infusion to stabilize a patient's hemodynamic status without a doctor's order.	1	2	3	4
3	Adjusting an inotropic infusion to stabilize a patient's hemodynamic status without a doctor's order.	1	2	3	4
4	Inserting a peripheral intravenous line into a patient to administer emergency drugs.	1	2	3	4
5	Altering maintenance IV fluids depending on the patient's hydration status.	1	2	3	4
6	Diagnosing the patient's condition.	1	2	3	4
7	Making decisions to change patient medications.	1	2	3	4
8	Making decisions to admit a patient.	1	2	3	4
9	Discharging a patient from the unit.	1	2	3	4
10	Providing discharge information to the patient and / or family.	1	2	3	4
11	Discussing patients' condition and prognosis with patient and / or relatives.	1	2	3	4
12	Assessing patients" clinical status.	1	2	3	4
13	Participation in collaborative therapeutic decisions.	1	2	3	4
14	Obtaining blood samples for laboratory tests.	1	2	3	4
15	Collecting specimens for bronchial cultures.	1	2	3	4
16	Acquiring central venous pressure (CVP) readings.	1	2	3	4
17	Acquiring pulmonary artery pressure (PAP) readings.	1	2	3	4
18	Acquiring pulmonary capillary wedge pressure (PCWP) readings.	1	2	3	4
19	Evaluating hemodynamic measurements.	1	2	3	4
20	Insertion of indwelling urinary catheter.	1	2	3	4
21	Performing emergency defibrillation.	1	2	3	4
22	Decision to wean patients from ventilator.	1	2	3	4
23	Performance of endotracheal intubation procedure.	1	2	3	4
24	Decision to extubate a patient.	1	2	3	4
25	Participation in medical ward rounds.	1	2	3	4
26	Teaching nursing students on critical care procedures in the unit.	1	2	3	4
27	Conducting history taking and performing physical examination.	1	2	3	4

(Austin, 2010).