



# **Investigate the Factors that may Impede Effective Communication Between Nurses and Patients During Hospitalization in North West Armed Forces Hospital in Saudi Arabia**

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## **Abstract**

Communication is the essence of health care providers' interaction in health care organizations. It is a tool to build a therapeutic relationship with patients and their families. Many studies have been conducted about patient-nurse communication and interaction worldwide. Nurses' communication can affect the quality of patient care, patient satisfaction, and patient's safety. Since communication in health care settings in North West Armed Forces Hospital in Saudi Arabia is not known to be better or worse than other countries, there is an important need to conduct a study to examine patient and nurse communication in North West Armed Forces Hospital in Saudi Arabia. The purpose of this study is to explore and describe the patient-nurse communication and interaction from patients' perspective in Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal units in North West Armed Forces Hospital in Saudi Arabia. A quantitative study using a cross-sectional design will be used for patients admitted in North West Armed Forces Hospital in Saudi Arabia. The SPSS for windows will be used for statistical analysis. A total of 100 surveys will complete in one-patient data collection. Descriptive and correlational statistics were used for the purpose of data analysis.

**Keywords:** Hospitalization, Nursing, Patients



## 1. Introduction

Communication is the essence of health care providers' interaction in the hospitals. It is the vehicle by which health care providers form a therapeutic relationship with patients/clients and families (Lawson, 2006). The definition of communication that will be used in this study is a process of sending and receiving messages between two or more individuals. Communication involves sending and receiving messages between two or more individuals (Balzer-Riey, 1996). It consists of verbal and nonverbal messages. Verbal messages can be sent through words, voice inflection and rate of speech. On the other hand, nonverbal messages can be recognized through eye movement, facial expression and body language (Lawson, 2006).

In nursing, communication is considered a tool by which nurses influence the behavior of patients, and thus it is important to the successful outcome of nursing interventions (Balzer-Riey, 1996). Interpersonal communication is one of the main skills used by nurses caring for patients in order to share the relevant health information because caring is the core of the nursing profession. Interpersonal communication helps patients to learn about their particular health problems, prevention and treatment strategies as well as strategies to achieve the expected health outcomes (Lawson, 2006). Interpersonal communication in health care settings can be influenced by different factors such as personal characteristics and interaction styles of providers (nurses), patients or families and contextual factors. Lawson (2006) stated that provider characteristics such as gender, ethnicity, literacy, specialty training, professional experience and communication style can influence interpersonal communication between nurses and patients. Ethnicity, gender, age, personality and behavior, health status and diagnosis, family interference, culture and values of patients are the factors that also affect nurse and patient communication (Lawson, 2006). Environmental and situational factors (contextual characteristics) such as site of interaction, type of relationship and care, time limits, and role of patients can also influence nurse-patient communication (Lawson, 2006).

Nurse-patient communication can lead to favorable outcomes in patient care; this communication improves nurses' esteem too because when they effectively communicate with their patients, the patients will be satisfied and as a result the nurse will be satisfied as well (Mok & Chiu, 2004). On the other hand, poor or ineffective communication is considered a major risk factor to patient safety and quality of patient care. According to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), communication breakdown was the main reason for sentinel events in all categories in 2005 (Scalise, 2006). In another study conducted by JCAHO in 2003, more than 60% of 2,034 medical errors attributed to communication breakdown and 915 people died as a result of communication errors (Scalise, 2006).

Health care providers' communication with patients plays an important role in understanding their health problems and following up with their treatment. A study conducted with 43 patients discharged from medical services of a municipal teaching hospital in New York examined patient understanding of their treatment plan and diagnosis at discharge. The results indicated that 16 (37.2%) were able to recount the purpose of all medications; and 12 (27.9%) were able to list all their medication; 18(14.9%) were able to state their diagnosis and 6(14%) were able to state the common



side effects of the medication. These low percentages clearly indicate that there is a problem with patient communication at the time of hospital discharge (Makaryus & Fareidman, 2005).

As stated previously, communication is the tool to build a therapeutic relationship with patients and their families. Showing respect for patients, expressing good staff attitude, and building rapport are important elements when communicating with patients. Insufficient information, respect and empathy were the most common complaints related to professional encounters. Consequently, patients and relatives may be exposed to anxiety and loss of confidence in the health care system after negative professional encounters (Jangland, Gunningberg & Carlsson, 2009). Nurses' communication also affects the level of patient satisfaction. In one study conducted in Jordan, the patients were least satisfied with nurses' listening skills for their concerns and worries as well as the availability of time with them (Al Husban & Abualrub, 2009).

North West Armed Forces Hospital in Saudi Arabia is the main center of the health care system to be approached by the population in order to obtain satisfied care. Northwest armed forces hospital's mission to provide tertiary health care services to military personnel, their eligible dependents during peace and war by provision of a high quality, integrated, evidence based safe practice. The vision of Northwest armed forces hospital strives to be a recognized hospital nationally for excellence and compassion in service and care for patients and staff.

North West armed forces hospital is accredited hospital by JCI and consist of medical, surgical and critical care units involves 800 beds. Its focus is mainly on providing high quality care to patients. In Northwest armed forces hospital patients can be in direct contact daily with nurses, physicians, pharmacists and other health care providers. This review will focus on the nursing category as there has been no study conducted in North West Armed Forces Hospital in Saudi Arabia to examine the patient-nurse communication during hospitalization.

## **2. Project Objectives**

### *2.1 Purpose of Study*

The purpose of this study is to investigate the factors that could affect the communication between patients and nurses during hospitalization in North West Armed Forces Hospital in Saudi Arabia.

### *2.2 Research questions*

This study addresses the following question:

1. What are the factors that may impede the communication between nurses and patients in North West Armed Forces Hospital in Saudi Arabia during hospitalization?
2. How the impact of breaking down the communication could affect the patients' outcomes?
3. What is the medical errors percentage of breaking down the communication between nurses and patients?



### 3. Literature Survey/Background

The following terms or combination of terms were used to conduct the article search: nurse, patient, communication and interaction. The computerized databases of CINAHL and Pub Med were used to conduct the research review based on the search. Ten articles were selected mainly discussed nurse-patient communication, interaction and relationship. The articles were published between 2008 and 2015. The review showed that there are no studies conducted in North West Armed Forces Hospital in Saudi Arabia related to patient-nurses communication in health care settings or primary health care setting. The following are the details of the results that were reported in the ten studies conducted in different countries regarding the patient-nurse communication in health care settings.

Pytel, Fielden, Meyer and Albert (2009) conducted a prospective, descriptive study using survey design to examine adult patient and visitor perceptions of important communication needs, nursing communication performance, and the similarity between patient/visitor and nurse perceptions of communication needs. This study was conducted in a large Midwest urban area, in the emergency department on the main campus of a tertiary health care center. One hundred twenty-three patients/visitors (53 patients and 70 visitors) and 73 nurses completed a communication needs survey. Two surveys that address satisfaction with communication, consisting of 19 items, were designed by study investigators, one for patients/visitors and one for nurses, to collect data.

The results of the study showed that of 19 communication needs items, 14 were rated by more than 80% by patients/visitors as important communication needs. The top rated communication need chosen by patients/visitors and nurses was: "Nurses keep you informed about what tests and treatments are done," as 95.8% of patients/visitors and 94.5% of nurses rated it as important communication need. Patients' and nurses' perceptions of the importance differed significantly on two communication needs: calm voice and assumption about social status ( $P=.01$ ,  $P=.006$  respectively). Nurses rated these needs as being of higher importance than patients. In this study, patients viewed nurses' communication as a reflection of caring. As they ranked the communication items 'listening to concerns' (ranked No 3), showing respect (ranked No 4) and showing compassion and genuine concern (ranked No 5) in the first five ranks. The authors concluded that nurses met patients'/visitors' communication needs 62% of the time, which means that there is room for improving communication through education of nurses about patients'/visitors' communication needs. It was noted that there is a difference in presentation of the data in the study. For example, the nurses' sample size was identified as 64 in the abstract and 73 in the results section of the article without explanation.

Movahedi, Salsali, Negharandeh, and Rahnavard (2011) conducted a qualitative study on nurse-patient communication in a referral teaching hospital in Iran. The aim of the study was to explore cultural and contextual factors influencing nurse-patient communication according to the lived experiences of Iranian nurses and patients. The participants in the study consisted of eight bachelor's degree nurses and nine patients hospitalized in surgical and medical wards. The study was conducted between October 2008 and August 2009. Data were collected through unstructured and semi-structured interviews as well as through observations.



Content analysis of the data showed the following theme: a patient-centered attitude in the shadow of mechanistic structure. This theme consisted of three categories: communication as the essence of nursing care, reactive communication, and difficulties of nurse-patient communication. Nurses had positive attitudes toward nurse-patient communication and believed that communication was an important part of the nursing role. However, the structure of nursing care and meeting patients' needs such as focusing only on physician orders, administrative demands and increased nurses' workload may hinder their communication with patients. The study also showed that socio-cultural-economic issues between nurses and patients such as educational and income level of patients, noncompliance with medical advice, and patient preference for receiving care from same gender health care professional may affect nurse-patient communication. In addition, patients' families interference in nursing care and restriction in providing information to patients by nurses because they were not allowed by doctors to talk about patient diseases and outcomes, were considered barriers to nurse-patient communication.

The results also showed that nurses' low economic status and workload were other difficulties influence nurses' communication with patients. The authors concluded that policy makers need to understand the factors that influence the nurse-patient communication in order to improve the situation.

Using a descriptive survey, Park and Song (2005) investigated communication barriers perceived by nurses and elderly patients in Korea. They developed a 50-item communication-barrier questionnaire (4-point likert-type items) that included patient, nurse, and environmental factors. The questionnaire was developed by using literature review, field study and expert consultation. A convenience sample of 100 older hospitalized patients and 136 female nurses were asked to rate the importance of each communication-barrier item. The data were collected from January to June 2002.

The results showed that nurses and patients rated the importance of barriers differently. In terms of the three types of communication barriers, nurse-related barriers were rated as of greater importance by patients than by nurses ( $t=2.67$ ,  $p=0.01$ ). On the other hand, nurses rated patient-related barriers as of greater importance than patients ( $t=6.23$ ,  $p=0.001$ ). There was no difference between the two groups in rating the environment-related barriers. There were 17 out of 30 (57%) barriers for which the scores of nurses and patients were significantly different in importance. The five most important nurse-related barriers reported by patients were 'using medical terminology', 'working without a sincere attitude', 'authoritative attitude', 'sudden change of subject', and 'being unfriendly'. There were 8 of 13 (62%) patient-related communication barriers that were perceived significantly differently in importance by patients and nurses. The five most important patient-related barriers reported by patients were 'not feeling well', 'being tired', 'being hard of hearing', 'pretending to understand' and 'being hesitant to interrupt the nurses' work'. Five of 7 (71%) environment-related barriers were perceived significantly differently between patient and nurses. Some environmental barriers reported by patients were presence of severely ill patients who occupied the nurse's time, the noisy and strange environment, and not having a family caregiver around. The authors concluded that it is necessary for nurses to understand elderly patients' perceptions about communication barriers in order to improve their communication skills and attitudes.





Understanding patients' perception of communication barriers should be included in both basic and in-service nursing education.

Further research needs to include both male and female nurses in order to obtain diverse views of nurse-patient communication. It would be appropriate also to conduct interviews to get more detailed lived patient experience data and lived patient experience. It would be preferable to include different age groups in patient samples to identify different patients' perceptions as a result of different age groups in nurses' communication. It is also important to state that ethical approval for study was not mentioned at all in the study.

McCabe (2004) conducted a qualitative study using a hermeneutic phenomenological approach to explore patients' experiences about nurses' communication. Eight patients recruited through purposeful sampling from a general teaching hospital in the Republic of Ireland were interviewed. Data were collected through unstructured interviews.

In this study, four themes emerged from the data analysis: lack of communication, attending, empathy, and friendly nurses. Lack of communication was the most important concern reported by the patients as nurses were more focused on their tasks (task-centered communication) than talking to patients (patient-centered communication). However, all patients in the study said that it was not the nurses' fault as they were occupied with other nursing activities. Patients expected open/honest and empathetic communication in order to build a trust relationship with nurses. Friendly attitude and sense of humor were reflected in nurses' interactions, which help to improve patients' self-esteem. The researcher concluded that if nurses used a patient-centered approach and this approach was valued and recognized by health care organizations, nurses could communicate well with patients. It is important to note that no mention was made about human subjects' approval.

Lawson (2002) conducted a descriptive-correlational study to examine the communication styles of nurse practitioners and physicians in an adult ambulatory medical clinic of a large tertiary referral center in northern New England. The aim of the study was to determine whether the practitioners' predominant style was informational or controlling and whether the style affected patient satisfaction and perceived support of autonomy. In this study, 124 provider-patient interactions of five nurse practitioners (NPs) and four (second- and third-year) medical residents (PHYs) were examined. Audiotapes of provider-patient interactions were obtained with use of voice-activated recorders. In addition, the provider Communication Style Rating Scale (18 seven-point likert-type items), Health Care Climate Questionnaire (16 items in a seven-point likert-type format) and Patient Satisfaction Questionnaire (five subscales and three global items in a five-point likert format) were used as instruments in this study. The results showed that all providers used mostly informational styles of communication. Controlling style was used by providers in their communication patterns when attempting to make decisions and plan patient care. However, physicians were more informational in their communication than NPs. The study was also found that provider communication styles were not associated with patient satisfaction or patient-perceived autonomy support.

Lawson concluded that the core of the provider-patient relationship is the interaction that occurs within the context of the encounter. Examination of communication styles can help nurse practitioners develop the skills necessary to provide patient-centered care. It is



the responsibility of the nurse educator to teach the skills of provider-patient interaction. Further research including diverse providers with large diverse samples (nurses and doctors) from different working areas is needed in order to evaluate patient views about providers' communication style.

Liu, Mok, and Wong (2005) conducted a qualitative study to explore the experiences of supportive communication among Chinese patients with cancer. Data collection was conducted in two of the largest oncology hospitals in Beijing, China, between June and August, 2002. Semi-structured interviews were carried out with a convenience sample of twenty Chinese patients with cancer. Content analysis was used to identify themes within the data. Two themes were identified under supportive communications: informational support and emotional support. The researchers stated that information related to the causes of diseases, treatment and recovery is an important form of supportive communication. The participants identified some important qualities related to supportive communication from healthcare professionals including patience from the provider and providing clear information about diseases, treatment and side effects in an easy to understand explanatory way. They reported that they depend on their close family members for emotional support rather than healthcare professionals. Various beliefs and misunderstandings by some patients with cancer may prevent them from seeking emotional support from nurses. However, it is important for nurses to initiate care in meeting both the physical and psychological needs of these patients. Therefore, nurses should be aware of the type, timing and source of supportive communication that Chinese patients prefer. Future research including larger samples of cancer patients in more than two oncology institutions is needed to gain broader results.

To summarize, this review of literature focused on patient-nurse communication in health care settings. The review showed that communication is an important key while interacting with patients. Ten articles were reviewed, published between 2002 to 2012. These articles explored the physical and psychological care expectations of patients from the nurses as care providers. The studies included different age groups of patients with different diseases in different settings around the world. The reviewed studies emphasized that it is the responsibility of nurses to provide patient-centered communication in which physical and psychosocial health care is provided. Involving patients in care and keeping them informed leads to their satisfaction. In some circumstances, the structure of health care settings, patients' and families' characteristics and nurses' communication skills and qualities may hinder the proper communication pathway. Cultural, economic, and social factors of patients may interfere with effective communication. Negative patient interactions with nurses can affect care outcomes. Since communication in NWAFFH is not known to be any better and no worse than in other countries, there is an important need to conduct such a study to examine patient and nurse communication in NWAFFH in Saudi Arabia.



#### 4. Research Design

A quantitative study using a cross-sectional design. **Cross-sectional study** is a research tool used to capture information based on data gathered for a specific point in time. The data gathered is from a pool of participants with varied characteristics and demographics known as variables. Age, gender, income, education, geographical locations, and ethnicity are all examples of variables (Sandelowski, 2008). Sandelowski (2008) asserts that The advantages of cross-sectional study include: Used to prove and/or disprove assumptions, Not costly to perform and does not require a lot of time, Captures a specific point in time, Contains multiple variables at the time of the data snapshot, The data can be used for various types of research, Many findings and outcomes can be analyzed to create new theories/studies or in-depth research. A cross sectional quantitative design will help the research findings to remove assumptions and replace them with actual data on the specific variables studied during the time period accounted for in the cross-sectional study.

##### 4.1 Methods

###### 4.1.1 Setting

The study will be conducted in six units "Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal. for the patient who is aware about his/her condition in Northwest armed forces hospital in Saudi Arabia in the North West Armed Forces Hospital in Saudi Arabia and the number of daily patients in each unit is more than 500 patients per month, Ministry of Health, 2014). Giving this number of patients, it will be no problematic to recruit a sizable sample for the study. Conducting the study in this hospital can help in gaining understating of patient-nurse communication and interaction. The hospital's administrations will be informed in advance to prepare a suitable time for conducting the questionnaire to the participants.

###### 4.1.2 Study Population

The target population of the study will be comprised of the patients admitted in the Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal units. The second target population will be nurses who have been working in those units in North West Armed Forces Hospital in Saudi Arabia. This chapter is a review of the study methodology used to explore the factors that could affect the communication between patients and nurses from nurses' and patients' perceptions in North West Armed Forces Hospital in Saudi Arabia. Reaching the active phase of data collection, anonymous paper surveys will be used to assure that all participants' demographic information and responses remained confidential. Gaining the permission of ethical committee in the hospital will enabled the researcher to dispense research surveys and to collect them. on the 2<sup>nd</sup> of May, 2018. Thus, the researcher will find recruiting participants using paper surveys to be a very effective tool when it comes to timing and cost-effectiveness. The study will conduct at North West Armed Forces Hospital in Saudi Arabia. Participants (nurses and patients) will be recruited in the Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and





delivery, postpartum and prenatal units after talking to the nursing administrator and getting their permission to recruit patients during their admission and nurses during their working hours. This setting will be chosen for the convenient, easy access to the study participants. Participants will be nurses and conscious patients, both male and female. There is age limitation, meaning that patients who has 18 years and above, nurses who has more than 2 years experiences are welcomed to participate in the study. There is no obligatory pressure of any kind to enroll in the study, meaning that patients interested in participating will welcome to voluntarily respond to the survey questions.

#### 4.1.3 Sample Size

Following ((Investigate the factors that may impede effective communication between nurses and pa during hospitalization in NWAFFH)) sample size is determined on the ground of the standard formula given by:

$$n = \frac{Z^2 p(1-p)}{d^2}$$

N: The sample size **patient**

P: The Probability of success (Investigate the factors that may impede effective communication between nurses and pa during hospitalization in NWAFFH)

Z\*: The standardized variable that corresponds to level of confidence

D: The desired marginal error

SS OR N=

P=43%

D=5%

Z=95%

$$n = \frac{(1.96)^2 \times (0.43) \times (0.57)}{(0.05)^2} \cong 376.47$$

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**N=377**

Following (((Investigate the factors that may impede effective communication between nurses and pa during hospitalization in NWAFFH)) sample size is determined on the ground of the standard formula given by:

$$n = \frac{Z^2 p(1-p)}{d^2}$$

N: The sample size for the **Nurse**

P: The Probability of success (((Investigate the factors that may impede effective communication between nurses and pa during hospitalization in NWAFFH)))

Z\*: The standardized variable that corresponds to level of confidence

D: The desired marginal error



SS OR N=

P=50%

D=9%

Z=95%

$$n = \frac{(1.96)^2 \times (0.5) \times (0.5)}{(0.09)^2} \cong 116.19$$

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**N=117**

#### 4.1.4 Inclusion Criteria

1. Being an adult patient aged from 20 to 50 years old.
2. Being an inpatient in any of the ward in the target hospital (Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal units).
3. Verbal/ written consent being given.
4. Conscious patient who is aware about his/ her condition and able to answer all the questions.

#### 4.1.5 Exclusion Criteria

1. Patients who stayed less than 48 hours in the hospital
2. Unconscious Patients
3. Patients who refused to sign the consent form
4. Patient who aged less than 20 or bigger than 50 years old

#### 4.1.6 Tool

The tool is a survey consisting of three parts. Part (A) **Demographic Data**, It will be designed to obtain background information on the age of participant, gender, marital status, qualifications, job and number of visit. Part (B) **Patients' perceptions in nurses' communication**, It will aim to obtain data on patients' perceptions about staff nurses' communication and interaction in the North West Armed Forces Hospitals in Saudi Arabia. Part (C) **Nurses' perceptions in Patients' communication**, It will aim to obtain data on nurses' perceptions about patients' communication and interaction in the North West Armed Forces Hospitals in Saudi Arabia. Part B and C of the survey is a tool developed by undergraduate student nursing, Miss. Peleki Theodosia for her thesis, as student in the nursing department at the University of Crete, Greece. Miss. Peleki's goal was to investigate "the assessment of patients and nurses' opinions on the bidirectional communication during hospitalization" (Peleki, 2015, p.1). The tool is consisting of two identical anonymous questionnaires were designed consisting of 26 questions for the nursing staff and 25 questions for the patients both into three thematic sections based on a 5-point Likert-scale (Table 4). Reading the three thematic sections, patients or nurses will choose strongly agree (SA), agree (A), neutral (N), disagree (D), or strongly disagree (SD).

The questioners were modified by the researcher. The first section included 10



closed-type questions regarding communication during hospitalization, while the next section comprised of 8 closed type questions which were relevant to the care provided by the nursing staff and applied to both questionnaires. The third section included 8 closed type questions concerning communication during hospitalization in the staff's questionnaire and 7 closed type questions in the patients' questionnaire. Appendix E is a permission from Miss. Peleki to use this portion of the tool.

#### 4.1.7 Data Collection Method

This is a quantitative research design, utilizing a survey to investigate the factors that could affect the patient-nurse communication and interaction in North West Armed Forces Hospital in Saudi Arabia during hospitalization. Data will be collected from conscious patients who admitted in adult medical, surgical and critical unite and nurses who have been worked in those units more than 2 years in North West Armed Forces Hospital in Saudi Arabia during hospitalization, after getting the approval of Human Subject Research centers. Participants will be informed that participation is not obligatory by any means and it was the participant's choice to participate or not participate in the study. Choosing not to participate would, in no way, affect either the patients or nurses' status or work. All surveys will be anonymous and any publication, presentation or reporting of the study data in any way will be done with no identifying information so that there will be no way to link participants with the study. Survey questions will be distributed to patients and nurses in North West Armed Forces Hospital in Saudi Arabia during hospitalization. The researcher verbally will give a brief description about the study, distributed the surveys, and left the questioner for 24 hours.

#### 4.2 Data Analysis

Descriptive statistics will be used to analyze data from the survey. Utilization of a descriptive quantitative research design allowed for a better insight of nurses and patients' perceptions in communication. In addition to that, frequency of responses, as well as, other statistical data was analyzed to better interpret patients and nurses' factors toward the communicate effectively in the hospital. With a help of a statistician, correlational statistics will be used, as well, to find out if there is a correlation between participants' age and their response to the survey questions.

#### 4.3 Ethical Implication/Protection of Human Subjects

An explanatory letter about the study will be sent to the Nursing administration of the six units, Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal units to permit the conduction of the study. The ethical approval of the study will be sought from the ethical committee at the North West Armed Forces Hospital in Saudi Arabia. The participants will be informed that the participation in the study is voluntary and failure to comply will not result in any penalties. Participants will be informed that they have the right to withdraw from the study. Their withdrawal will not affect the treatment they receive in the hospital.

Prior to obtaining informed consent from the participants, the researcher will explain the nature and purpose of the study. They will be assured that no harm will happen to them for revealing their perceptions about nurses' communication. Confidentiality and anonymity are very important in this study. The participants will be informed that their names will not be written in the transcript. There will be limited access to the information



gathered about the participants, as the data will be kept in a closed cabinet away from access. Also the data collection will be done in their room to maintain privacy and dignity. No reference to the participants' names or any detail that may identify them will be made.

## 5. Results and Discussion

In this part, we show the results of data collection and analysis about the perception of nurses and patients of information during hospitalization, care provided by the nursing staff, and communication during hospitalization. Therefore, we divide this section into four parts.

### 5.1 Information During Hospitalization

Table 1 shows the results of the questions about information during hospitalization from question 1 to question 10. As shown in the table, the total number of patient respondents is 151 while nurses is 141. Regarding question 1, the patients mostly agreed (44%) with the statement saying that they are informed by nursing staff about their rights, 25% N, and 21% D, while 67% of nurses answered with SA, 28% A. 45% of patients answered that they are agreed that nursing staff informs them with the results after taking vital signs, 21% D. Similarly, 66% of nurses are strongly agreed with this statement, 27% A. Regarding question 3, 45% of patients are agreed that staff informs them with any diagnostic test, 22% D, whereas 51% of nurses answered with SA, 27% A.

Question 4 saying that nursing staff informs the patient about the medication he/she is taking. 44% of patients are agreed with question 4, 23% D, while 68% of nurses are SA, 26% A. It can be observed that there is a pattern in the responses, most of patients answered with agree, and most of nurses answered with strongly agree. The results are consistent with the results of Pytel, Fielden, Meyer and Albert (2009) that investigated the perception of nurses and patients about keeping the patient informed about what tests and treatments done. They reported that 95.8% of patients/visitors and 94.5% of nurses rated it as important communication need.

Table-1: Patients & Nurses perception regarding Information during Hospitalization

			SA	A	N	D	SD	Total
<b>Information During Hospitalization</b>								
<b>Q1</b>	I informed by the nursing staff regarding my rights	<b>Patients</b>	5(3.3%)	67(44.4%)	39(25.8%)	32(21.2%)	8(5.3%)	<b>151</b>
	Nurses inform patients of their rights	<b>Nurses</b>	95(67.4%)	40(28.4%)	4(2/8%)	2(1/4%)	0(0%)	<b>141</b>
<b>Q2</b>	The nursing staff informs of the results when taking my vital	<b>Patients</b>	5(3.3%)	69(45.7%)	36(23.8%)	33(21.9%)	8(5.3%)	<b>151</b>



	signs								
	Nurses inform patients of the results when taking their vital signs	<b>Nurses</b>	93(66%)	38(27%)	7(5%)	3(2.1%)	0(0%)	<b>141</b>	
<b>Q3</b>	The staff informs me of any diagnostic tests	<b>Patients</b>	4(2.6%)	68(45%)	36(23.8%)	34(22.5%)	9(6%)	<b>151</b>	
	Nurses give the patient information on any diagnostic tests	<b>Nurses</b>	72(51.1%)	38(27%)	20(14.2%)	7(5%)	4(2.8%)	<b>141</b>	
<b>Q4</b>	The nursing staff informs me about the medication I'm taking	<b>Patients</b>	4(2.6%)	67(44.4%)	35(23.2%)	36(23.8%)	9(6%)	<b>151</b>	
	Nurses keep patients informed on the medication their taking	<b>Nurses</b>	96(68.1%)	37(26.2%)	5(3.5%)	2(1.4%)	1(0.7%)	<b>141</b>	
<b>Q5</b>	It keeps me informed on the condition of my health	<b>Patients</b>	4(2.6%)	66(43.7%)	37(24.5%)	35(23.2%)	9(6%)	<b>151</b>	
	Nurses keep patients informed on the condition of their health	<b>Nurses</b>	75(53.2%)	42(29.8%)	17(12.1%)	6(4.3%)	1(0.7%)	<b>141</b>	
<b>Q6</b>	The nursing staff informed me about the department on the day of my arrival	<b>Patients</b>	4(2.6%)	69(45.7%)	34(22.5%)	35(23.2%)	9(6%)	<b>151</b>	
	Nurses inform patients about the department on the	<b>Nurses</b>	92(65.2%)	41(29.1%)	6(4.3%)	2(1.4%)	0(0%)	<b>141</b>	





	day of patients' arrival								
<b>Q7</b>	They inform me as to whether and how frequently I should be in motion	<b>Patients</b>	4(2.6%)	67(44.4%)	36(23.8%)	35(23.2%)	9(6%)	<b>151</b>	
	Nurses inform patients as to whether and how often they should be in motion	<b>Nurses</b>	75(53.2%)	52(36.9%)	13(8.5%)	2(1.4%)	0(0%)	<b>141</b>	
<b>Q8</b>	They try to include / inform me about the decisions related to my Therapy.	<b>Patients</b>	3(2%)	71(47%)	32(21.2%)	36(23.8%)	9(6%)	<b>151</b>	
	Nurses try to include /inform patients about the decisions related to their therapy	<b>Nurses</b>	74(52.5%)	50(35.5%)	13(9.2%)	3(2.1%)	1(0.7%)	<b>141</b>	
<b>Q9</b>	I'm satisfied with the frequency of information provided to me by the nurse	<b>Patients</b>	3(2%)	72(47.7%)	34(23.2%)	38(24.5%)	4(2.6%)	<b>151</b>	
	Nurses are satisfied with the frequency information they provide to their patients	<b>Nurses</b>	77(54.6%)	52(36.9%)	10(6.4%)	3(2.1%)	0(0%)	<b>141</b>	
<b>Q10</b>	I'm given information the moment you ask for it	<b>Patients</b>	1(0.7%)	71(47%)	37(24.5%)	38(25.2%)	4(2.6%)	<b>151</b>	
	Nurses provide the patients with information the	<b>Nurses</b>	87(61.7%)	43(30.5%)	8(5.7%)	1(0.7%)	1(0.7%)	<b>141</b>	



moment they ask for  
it

### 5.2 Care provided by Nursing Staff

In Table 2, the patients and nurses respondents provided their viewpoints about the care provided. 39% of patients find that nurses are polite and friendly with patients, 33% N, and 23% D, while 73% of nurses answered with SA. Regarding the immediate responding of nurses to the call of help of patient, 38% of patients answered with A, 32% N, and 23% D, while, 71% of nurses answered with SA, and 25% A. The patients answered with 33% A on the “nurses pay attention to every patients’ personal needs”, 27% D, while 66% of nurses answered with SA, 29% A. Regarding privacy protection of patients, 29% of patients are agreed with it, 25% D, but 72% of nurses SA with this statement, 25% A. Question 17 says “Nursing staff informs me about positions which help alleviate pain & of the medication given”. The patients answered as follows: 26% A, 23% D, while nurses answered 68% SA, 27% A.

The results obtained from this study are consistent also with the study of Lawson (2002) that concluded the core of the provider-patient relationship is the interaction that occurs within the context of the encounter. Examination of communication styles can help nurse practitioners develop the skills necessary to provide patient-centered care. It is the responsibility of the nurse educator to teach the skills of provider-patient interaction.

Table-2: Patients & Nurses perception regarding care provided by the nursing staff

			SA	A	N	D	SD	Total
Q11	Nurses are polite and friendly towards me	<b>Patient s</b>	1(0.7%)	59(39.1%)	50(33.1%)	35(23.2%)	6(4%)	151
	Nurses are polite and friendly towards their patients	<b>Nurses</b>	104(73.8%)	34(24.1%)	2(1.4%)	1(0.7%)	0(0%)	141
Q12	Nurses immediately respond to my call of help	<b>Patient s</b>	2(1.3%)	58(38.4%)	49(32.5%)	36(23.8%)	6(4%)	151
	Nurses immediately respond to patients’ call for help	<b>Nurses</b>	101(71.6%)	36(25.5%)	3(2.1%)	1(0.7%)	0(0%)	141
Q13	Nurses pay attention to every patients’ personal needs	<b>Patient s</b>	1(0.7%)	50(33.1%)	53(35.1%)	41(27.2%)	6(4%)	151
	Nurses pay attention to	<b>Nurses</b>	94(66.7%)	41(29.1%)	3(2.1%)	2(1.4%)	1(0.7%)	141



	the patents' personal needs		)				%)	
<b>Q14</b>	Nurses protect my privacy (protection of body exposure)	<b>Patient s</b>	5(3.3%)	45(29.8%)	53(35.1%)	39(25.8%)	9(6%)	<b>151</b>
	Nurses protect patients' privacy (protection of body exposure)	<b>Nurses</b>	102(72.3%)	36(25.5%)	2(1.4%)	1(0.7%)	0(0%)	<b>141</b>
<b>Q15</b>	Nursing staff informs me about how to take care of myself at home afar being discharged	<b>Patient s</b>	8(5.3%)	34(22.5%)	62(41.1%)	39(25.8%)	8(5.3%)	<b>151</b>
	Inform the patients on how to take care of themselves at home afar being released	<b>Nurses</b>	98(69.5%)	39(27.7%)	2(1.4%)	2(1.4%)	0(0%)	<b>141</b>
<b>Q16</b>	I'm promptly sensitized on anything bothersome which may have caused my health problem	<b>Patient s</b>	9(6%)	34(22.5%)	63(41.7%)	37(24.5%)	8(5.3%)	<b>151</b>
	Promptly sensitized on anything bothersome which may have caused their health problem	<b>Nurses</b>	90(63.8%)	45(31.9%)	4(2.8%)	2(1.4%)	0(0%)	<b>141</b>
<b>Q17</b>	Nursing staff informs me about positions which help alleviate pain & of the medication given	<b>Patient s</b>	6(4%)	40(26.5%)	62(41.1%)	35(23.2%)	8(5.3%)	<b>151</b>
	Nurses inform the patients about positions which help alleviate	<b>Nurses</b>	96(68.1%)	38(27%)	6(4.7%)	1(0.7%)	0(0%)	<b>141</b>



<b>Q18</b>	pain & of the medication given							
	Nurses check up on my regularly when in pain	<b>Patient s</b>	5(3.3%)	36(23.8%)	61(40.4%)	40(26.5%)	9(6%)	<b>151</b>
	Nurses check up on the patient regularly when in pain	<b>Nurses</b>	100(70.9%)	33(23.4%)	7(5%)	1(0.74%)	0(0%)	<b>141</b>

### 5.3 Communication During Hospitalization

As shown in Table 3, it presents the responses of the patients and nurses regarding communication during hospitalization. 23% of patients find that the nursing staff dedicates adequate time to the patient communication, 27% D, whereas 60% of nurses answered with SA, 31% A. 26% of patients are agreed with the statement of nurses respond to my concerns and complaints during my stay at hospital, 23% D, whereas nurses answered about that with 63% SA, and 28% A. Question 21 says that the patient trust the nursing staff with something that troubles them. The patients answered about this questions as follows: 26% A, 39% N, and 24% D. The nurses answered as follows: 60% SA and 31% A. It can be noticed that the responses of both patients and nurses follow a pattern in a way that a few patients are A but most nurses are SA.

The results of this study conflict with the results of Movahedi, Salsali, Negharandeh, and Rahnavard (2011) regarding the Nurses had positive attitudes toward nurse-patient communication and believed that communication was an important part of the nursing role. Further, the study of McCabe (2004) concluded that the lack of communication was the most important concern reported by the patients as nurses were more focused on their tasks (task-centered communication) than talking to patients (patient-centered communication). The results of this study are consistent with these results in terms of the lack of communication as stated by patients responses.

Table-3: Patients & Nurses perception regarding communication during hospitalization

#### Communication During Hospitalization

			SA	A	N	D	SD	Total
<b>Q19</b>	The nursing staff dedicates adequate time to my communication	<b>Patient s</b>	5(3.3%)	35(23.2%)	60(39.7%)	42(27.8%)	9(6%)	<b>151</b>
	Nurses dedicate adequate time to my communication	<b>Nurses</b>	85(60.3%)	45(31.9%)	8(5.7%)	2(1.4%)	1(0.7%)	<b>141</b>
<b>Q20</b>	Nurses respond to my concerns and complaints during my stay at hospital	<b>Patient s</b>	7(4.6%)	40(26.5%)	57(37.7%)	36(23.8%)	11(7.3%)	<b>151</b>



	Nurses respond to the patients concerns and complaints during their stay at hospital	<b>Nurses</b>	89(63.1%)	40(28.4%)	11(7.8%)	1(0.7%)	0(0%)	<b>141</b>
<b>Q21</b>	I trust the nursing staff with something that troubles them	<b>Patients</b>	7(4.6%)	40(26.5%)	59(39.1%)	37(24.5%)	8(5.3%)	<b>151</b>
	Patients trust the nursing staff with something that troubles them	<b>Nurses</b>	85(60.3%)	45(31.9%)	8(5.7%)	2(1.4%)	1(0.7%)	<b>141</b>
<b>Q22</b>	I'm satisfied with your communication with the nursing staff	<b>Patients</b>	10(6.6%)	38(25.2%)	57(37.7%)	38(25.2%)	8(5.3%)	<b>151</b>
	Nurses are satisfied with their communication with the patients	<b>Nurses</b>	81(57.4%)	46(32.6%)	7(5%)	1(0.7%)	2(1.4%)	<b>141</b>

Table 4 shows the correspondence mean, SD, mean rank, and p-value of patients and nurses regarding questions.

As we see in Table 4, the average of mean values of questions from 1 to 10 regarding patients is 2.82, which closed to A and p-value of all questions is the same and accepted. Similarly, the average of mean values of questions from 1 to 10 regarding nurses is 1.55, which closed to SA and p-value of all questions is the same and accepted.

Regarding questions from 11 to 18, the average of mean values of questions regarding patients is 2.96, which is between A and N and p-value of all questions is the same and accepted. Similarly, the average of mean values of questions from 11 to 18 regarding nurses is 1.60, which is closed to SA and p-value of all questions is the same and accepted.

Finally, the questions from 19 to 22 follow the same pattern of above questions in regard of mean value of nurses responses which is 1.49 (SA), but the mean value of responses of patients regarding these questions is closed to N with 3.04 mean value. P-value of all questions is the same and accepted.

Table-4: The correspondence mean, SD, mean rank and p-value of Patients & Nurses regarding the questions

<b>n</b>	<b>151</b>	<b>141</b>
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Questions	Mean <sup>⊥</sup>	SD <sup>⊥</sup>	Mean Rank	Mean <sup>⊥</sup>	SD <sup>⊥</sup>	Mean Rank	
<b>Q1</b>	2.81	.985	201.12	1.38	.617	88	<b>0.000<sup>(b)</sup></b>
<b>Q2</b>	2.80	.993	198.74	1.43	.690	90.55	<b>0.000<sup>(b)</sup></b>
<b>Q3</b>	2.84	1.001	184.89	1.82	1.039	105.39	<b>0.000<sup>(b)</sup></b>
<b>Q4</b>	2.86	1.007	201	1.40	.697	88.14	<b>0.000<sup>(b)</sup></b>
<b>Q5</b>	2.86	1.000	189.83	1.70	.894	100.09	<b>0.000<sup>(b)</sup></b>
<b>Q6</b>	2.84	1.007	200.10	1.42	.645	89.10	<b>0.000<sup>(b)</sup></b>
<b>Q7</b>	2.85	1.003	194.37	1.58	.709	95.23	<b>0.000<sup>(b)</sup></b>
<b>Q8</b>	2.85	1.005	192.33	1.63	.797	97.41	<b>0.000<sup>(b)</sup></b>
<b>Q9</b>	2.78	.930	194.74	1.56	.711	94.84	<b>0.000<sup>(b)</sup></b>
<b>Q10</b>	2.82	.910	198.69	1.47	.704	89.17	<b>0.000<sup>(b)</sup></b>
<b>Information during Hospitalization</b>							
<b>Q1-Q10</b>	<b>28.71</b>	<b>9.79</b>	<b>200.38</b>	<b>15.52</b>	<b>5.49</b>	<b>88.79</b>	<b>0.000<sup>(b)</sup></b>
<b>Q11</b>	2.91	.897	207.82	1.29	.528	80.83	<b>0.000<sup>(b)</sup></b>
<b>Q12</b>	2.91	.912	206.42	1.32	.552	82.33	<b>0.000<sup>(b)</sup></b>
<b>Q13</b>	3.01	.891	205.46	1.40	.676	83.36	<b>0.000<sup>(b)</sup></b>
<b>Q14</b>	3.01	.966	206.93	1.30	.534	81.78	<b>0.000<sup>(b)</sup></b>
<b>Q15</b>	3.03	.955	205.34	1.35	.585	83.48	<b>0.000<sup>(b)</sup></b>
<b>Q16</b>	3.01	.963	202.95	1.42	.623	86.05	<b>0.000<sup>(b)</sup></b>
<b>Q17</b>	2.99	.934	204.66	1.38	.604	84.22	<b>0.000<sup>(b)</sup></b>
<b>Q18</b>	3.08	.935	206.20	1.35	.611	82.57	<b>0.000<sup>(b)</sup></b>
<b>Care provided by the Nursing Staff</b>							
<b>Q11-Q18</b>	<b>23.94</b>	<b>6.44</b>	<b>212.34</b>	<b>10.81</b>	<b>3.86</b>	<b>75.99</b>	<b>0.000<sup>(b)</sup></b>
<b>Q19</b>	3.10	.936	202.61	1.50	.733	86.41	<b>0.000<sup>(b)</sup></b>
<b>Q20</b>	3.03	.993	201.48	1.46	.671	87.62	<b>0.000<sup>(b)</sup></b>
<b>Q21</b>	2.99	.956	200.31	1.50	.733	88.88	<b>0.000<sup>(b)</sup></b>
<b>Q22</b>	2.97	.993	195.17	1.52	.758	88.65	<b>0.000<sup>(b)</sup></b>
<b>Communication during hospitalization</b>							
<b>Q19-Q22</b>	<b>12.09</b>	<b>3.67</b>	<b>203.65</b>	<b>6.01</b>	<b>2.56</b>	<b>85.30</b>	<b>0.000<sup>(b)</sup></b>



**(a): Mann Whitney U Test was applied to calculate p-value**

**(b):  $p\text{-value} \leq 0.05$  (Significant)**

**( $\perp$ ): Mean was calculated based on the values of ordinal ranking of the response. i.e.**

**Strongly Agree:1, Agree:2, Neutral:3, Disagree:4 & Strongly Dissagree:5**

## 6. Conclusion

The purpose of this study was to investigate the factors that could affect the communication between patients and nurses during hospitalization in North West Armed Forces Hospital in Saudi Arabia. A quantitative study using a cross-sectional design was used for patients admitted in North West Armed Forces Hospital in Saudi Arabia and SPSS for windows was selected for statistical analysis. A cross sectional quantitative design will help the research findings to remove assumptions and replace them with actual data on the specific variables studied during the time period accounted for in the cross-sectional study. A total of 100 surveys were complete in one-patient data collection. Descriptive and correlational statistics were used for the purpose of data analysis.

The target population of this study comprised the patients admitted in the Adult surgical (25, 35, 36, 38) and medical units (26, 37), cardiac surgical ward, Labor and delivery, postpartum and prenatal units. The second target population will be nurses who have been working in those units in North West Armed Forces Hospital in Saudi Arabia.

The results showed different agreements with related work. One of the results showed that there is a pattern in the responses, most of patients answered with A, and most of nurses answered with SA regarding the questions about information during hospitalization. Moreover, the responses of both patients and nurses follow a pattern in a way that a few patients are A but most nurses are SA regarding communication during hospitalization. In conclusion, patient communication is important in improving patient outcomes, patient safety and satisfaction. The ultimate expectation of patients from nurses in health care settings is to provide the physical and psychosocial care.

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