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**FACTORS INFLUENCING PATIENTS' SATISFACTION WITH NURSING CARE**

**AT THE UPPER EAST REGIONAL HOSPITAL, BOLGATANGA**

**BY**

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**DECLARATION**

I Collins Adombire Akayuure hereby affirm that this thesis is the outcome of my personal work except for the references of other studies which I appropriately acknowledged. I further affirm that this thesis has not either partially or fully presented to this university or any other university for the award of another degree.

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## **DEDICATION**

I dedicate this thesis to my lovely wife Gloria Ayisaaya and my son Gerulph Akayuure for their support and sacrifice throughout the two years of my studies. I also dedicate this work to my parents Mr. and Mrs. Akayuure Akuyeleye for their encouragements.

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## **LIST OF ABBREVIATIONS**

**CAHS:** Cognitive Appraisal of Health Scale

**ERC:** Ethics Review Council

**GHS:** Ghana Health Services

**GSS:** Ghana Statistical Services

**IMCHB:** Interaction Model of Client Health Behaviour

**IRB:** Institutional Review Board

**NPI:** Nurse-Patient Interaction

**NSNS:** Newcastle Satisfaction with Nursing Care Scale

**PPNCE:** Patient Previous Nursing Care Experience

**PPE:** Picker Patient Experience

**SNC:** Satisfaction with Nursing Care

**SPSS:** Social Package for Statistical Services

**UERH:** Upper East Regional Hospital

**WHO:** World Health Organisation

## **ABSTRACT**

The study examined factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga. The organising framework for the study was the Interaction Model of Client Health Behaviour (IMCHB). The study employed a quantitative approach with a cross-sectional design. A sample of 260 male and female adult inpatients at Medical/Surgical Wards of the Upper East Regional Hospital participated in the study. The participants answered a questionnaire which consists of sociodemographic characteristics, Cognitive Appraisal Health Scale (CAHS), Picker Patients' Experience (PPE) Questionnaire, Nurse-Patient Interaction Scale (NPIS) and Newcastle Satisfaction with Nursing Scale (NSNS). The data analysis was done using the Statistical Package for Social Sciences (SPSS) software. Analytic techniques such as Independent t-test, Pearson Correlation, Standard Multiple Regression, and Sequential Multiple Regression were employed. The results indicate that patients' previous nursing care experience is significantly but negatively related to patients' nursing care satisfaction. Patients' perception of illness did not significantly relate to patients' nursing care satisfaction in this study. Also, nurse-patient interaction is significantly and positively related to patients' satisfaction with nursing care. In addition, patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction significantly explained 56% of patients' nursing care satisfaction. Lastly, nurse-patient interaction was the most predictor of patients' satisfaction with nursing care. The study would be useful to nurses and other healthcare professionals in their interaction with patients. This suggests the need for nurses to frequently assess patients' level of satisfaction with nursing care in order to improve health care at hospitals. Also, health authorities should periodically organise continuous professional training on interpersonal relationship for all health providers in order to improve on their interactions and communication skills. Based on the study findings, there is a need to conduct

future research on the impact of human and material resources on patients' satisfaction with nursing care. The present study findings indicate the need for nurses and health authorities to place much importance in improving the relationship between nurses and patients in health care facilities.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

Health care is the act of providing services to improve the well-being of people, cure diseases as well as relief patient's symptoms of pain and suffering (Allebeck, 2013). According to the World Health Organization (WHO, 2013), it is a right for every person to have access to some basic health services irrespective of the financial status of the person. The quality of healthcare provided is largely determined by the patient's satisfaction with care (Goh & Vehvilainen-Julkunen, 2016). As a result, it is therefore not surprising that every healthcare organization values patient's satisfaction and puts interventions that meet the needs of patients (Riiskjaer, Ammentorp, Nielsen, & Kofoed, 2010). Also, it is argued that modernism, competition among healthcare providers to provide satisfactory care and improvement in the health literacy of patients have made patients critical appraisers of health outcomes (Kupfer & Bond, 2012; Riiskjaer et al., 2010). These phenomena have made patient's satisfaction surveys to gain prominence in healthcare organizations. Thus, for hospitals to continue to stay in business, their services have to be patronized by healthcare consumers (patients).

The concept of patients' satisfaction is complex and depends on the context of social, psychological and cultural aspects (Graham, 2016). It is defined as health services' ability to meet the expectations of patients (Batbaatar, Dorjdagva, Luvsannyam, & Amenta, 2015). Several studies have been conducted worldwide on the aspects of waiting time (DiGiacinto, Gildon, Keenan, & Patton, 2016; Geberemichael, Metaferia, Takele, & Johnston, 2011), cost of treatment, the environment of health facility, and provider-patient relationship (Chan et al., 2018; Liew & Gardner, 2014) in relation to patient's satisfaction with health care. Some other studies have been conducted from the service quality dimension

which measures tangibility, reliability, responsiveness, assurance, and empathy which was found to have an influence on patient's satisfaction (Aliman & Mohamad, 2016; Meesala & Paul, 2018). The outcomes of these studies have presumably guided management and those who are directly providing healthcare to improve health care that will be appreciated by patients.

Several factors influence patients' satisfaction with healthcare (Avortri, Beke, & Abekah-Nkrumah, 2011; Newcomb et al., 2017; Srivastava, Avan, Rajbangshi, & Bhattacharyya, 2015; Vranceanu & Ring, 2011) and among these are nurse-patient interaction, patients' previous healthcare experience, and patients' cognitive appraisal. There is evidence that the quality of health care received and the patient's satisfaction is explicitly linked to the good interaction that health providers have with patients (Haugan, Moksnes, & Espnes, 2013a). This healthcare provider-patient interaction in the healthcare setting could be nurse-patient interaction, doctor-patient interaction, or paramedics-patient interactions. Among all the health workers, nurse-patient interaction is considered most vital in the sense that nurses stay longer with the patients at the hospital than other health workers (Ferri, Muzzalupo, & Di Lorenzo, 2015a). Implicitly improving nurses' relationship with patients at hospitals will largely improve healthcare quality to patients which subsequently leads to patient's satisfaction. It is not surprising that Otani, Herrmann, and Kurz (2011) carried out a study to ascertain the scopes of hospital care and the most influential in patient's satisfaction in the United States of America (USA) and indicated that patients perceived nursing care to be the most influential in their overall satisfaction with care. It is on the basis of this that MacLeod (2012) considers nurse-patient interaction as a most imperative determining element in the patient's health care satisfaction.

Some benefits of positive nurse-patient interaction to the patient have been found to include adherence to treatment, trust, common understanding, social support, and self-efficacy among patients,

nurses and other health workers(Weiss, Goldlust, & Vaucher, 2010). Also, self-care and satisfaction among patients have been found as some of the benefits of positive nurse-patient interaction (Currie et al., 2015; Dahlem, Villarruel, & Ronis, 2015b).

In contrast, negative nurse-patient interaction leads to the following: patients not able to understand diagnosis and treatment (Labhardt, Schiess, Manga, & Langewitz, 2009); wrongful administration of medication, poor documentation, increased infection risks, risks of patient falls and increased mortalities (Ehsani et al., 2013; Holden et al., 2011; Hugonnet, Chevrolet, & Pittet, 2007) as well as nurses failure to meet the emotional desires of patients (Van den Heever, Poggenpoel, & Myburgh, 2013). In some instances, negative nurse-patient interaction leads to violence in the healthcare facility due to patients been dissatisfied with the healthcare delivered (Boafo, 2016).

Patient previous healthcare experience is considered another key determining element in the patient's nursing care satisfaction (Bjertnaes, Sjetne, & Iversen, 2012a) and at large health service quality. Among older adult inpatients in the USA, patients' experiences of care was established to significantly correlated with the patient's overall healthcare satisfaction (Chumbler, Otani, Desai, Herrmann, & Kurz, 2016). Similarly, Medina-Mirapeix, Jimeno-Serrano, Escolar-Reina, and Del Bano-Aledo (2013) found patients' experiences of care to influence their satisfaction and quality of health service during the rehabilitation of patients in a rehabilitation centre in Spain.

Cognitive appraisal of patients about nursing care is another factor that determines the patient's satisfaction with nursing care (Shirley & Sanders, 2013). Cognitive appraisal refers to the meaning that patients attach to their illnesses. Patients admitted to hospitals with illnesses perceive their illnesses differently (Leventhal, Phillips, & Burns, 2016). The meaning patients attach to their illness help them

cope with the conditions that affect them (Ben-Ezra, Hamama-raz, Palgi, & Palgi, 2015) thereby making patients more satisfied with care. In a chronic condition such as a stroke, cognitive appraisal was found to predict life satisfaction of the patients in the Netherlands (Van Mierlo, Van Heugten, Post, De Kort, & Visser-Meily, 2015). In their research, patients with positive cognition about stroke were more satisfied with life than their counterparts with negative cognition. Similarly, cognitive appraisal has a positive significant relationship with type 2 diabetes patients' life satisfaction in the USA (Walker, Lynch, Strom Williams, Voronca, & Egede, 2015a).

Despite the numerous research on nurse-patient interaction, the extent to which nurse-patient interaction influence satisfaction with nursing care is still unknown.

## **1.2 Problem statement**

Patient's health care satisfaction especially nursing care is a vital element in influencing healthcare quality (Goh & Vehvilainen-Julkunen, 2016). Also, patients' health behaviour intention is largely influenced by patients level of satisfaction (Aliman & Mohamad, 2016). These health behaviour intentions make patients have a preference in visiting or utilising health facilities that provide health services they perceive to be quality (Ackerson, 2011), making patients' satisfaction studies a necessity in every healthcare organizations. Patient's satisfaction with healthcare is multifaceted and include cost of treatment, environment of health facility, communication, time waiting for services, and provider-patient relationship (Atinga, Abekah-Nkrumah, & Domfeh, 2011b; Essiam, 2013).

In Ghana, limited studies have been conducted on nurse-patient interaction both from the perspectives of nurses and patients. For example, Korsah (2011) explores the factors that positively and negatively affect nurse-patient interaction using 12 State Registered Nurses at the Holy Family Hospital,

Techiman. The author identified several factors such as waiting time, empathy, demand for money before care, unfair treatment, and deficiency in communication to determine patients' satisfaction. Korsah (2011) also suggested improvement in nursing education, practice, and administration. Similarly, Mensah (2013) conducted a qualitative study to explore patients experiences about nurse-patient interaction at Kumasi and it emerged that nurses' poor attitudes were affecting nurse-patient interaction. Notwithstanding the insight offered by the above studies, a major caveat in the literature pertains to the extent to which nurse-patient interaction influence the patient's satisfaction with nursing care in Ghana. The current study was designed to address this important but under-researched issue. The study will be guided by the Interaction Model of Client Health Behaviour (IMCHB) developed by Chery Cox in 1982 which demonstrate how nurse-patient interaction and patients' characteristics influence health outcome.

### **1.3 Purpose of the study**

The purpose of this study was to examine the factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga.

### **1.4 Specific objectives**

The specific objectives of the study were to:

1. Determine the relationship between patients' previous nursing care experience and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga?
2. Elucidate the relationship between patients' perception of illness and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga.
3. Investigate the relationship between nurse-patient interaction and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga?

### **1.5 The significance of the study**

The study is significant because of the benefits that would be derived from the findings of the study by the various interested party in the healthcare organisation. Assessment of satisfaction of medical-surgical patients would be useful in evaluating and redesigning the process of care to ensure improved quality health care. The study would help to examine the usefulness of the interactions between nurses and patients. Also, the study would help nurses in Ghana to establish a positive therapeutic relationship with patients during health care. Furthermore, the study will be of significance to other healthcare professionals, as the findings could guide their interactions with patients. The study will also be of significance to policy formulation, theoretical advancement/refinement, and contribution to scientific literature. Finally, the study will also reveal areas for future research.

### **1.6 Operational definitions**

**Nurse-Patient Interaction:** Patients' perception of his/her relations/communications with nurses during the period of hospitalization.

**Patients' Satisfaction:** The extent to which patient is happy, approve or content with nursing care rendered to him/her during the period of hospitalization.

**Patients' Cognitive Appraisal/Perception of Illness:** The awareness, understanding, and knowledge of the patients about his/her illness.

**Patients' previous nursing care experience:** Patients' previous nursing care experience before the current hospitalization either from the Upper East Regional Hospital or other health facilities.

### **1.7 Organisation of the Thesis**

The outline of the thesis and the various sections in each chapter are presented below:

### *Chapter 1: Introduction*

This chapter focuses on the background to the study, the problem statement, the purpose of the study, objectives, significance of the study and operational definitions.

### *Chapter 2: Literature Review*

This chapter focuses on an overview of relevant literature in accordance with the topic under study. The review is organized under the following headings; the theoretical framework of the study, review of related literature, the conceptual framework of the study and statement of hypotheses.

### *Chapter 3: Methods*

This chapter focuses on the research approach employed for the study. It comprises the following headings; the design, setting, population and sample, sample size, measures, pre-test of the questionnaire and data collection procedure. The chapter also includes ethical consideration and approval, data entry and management as well as data analytic strategy.

### *Chapter 4: results*

This chapter focuses on the presentation of the results of the study. It includes descriptive statistics and hypotheses testing by way of independent t-test, Pearson correlation and regression analysis. It also includes a summary of the study findings

### *Chapter 5: Discussion of findings*

This chapter focuses on discussions of the findings based on the research hypotheses of the study with reference to previous literature and contextual explanation for different outcomes. It also includes the usefulness of the Interactional Model of Client Health Behaviour to the study.

*Chapter 6: Summary, Implications for Nursing, Limitations, Conclusion, and Recommendations*

This chapter includes a summary of the study, implications for nursing, limitations, conclusion, and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter focuses on the theoretical framework, Interaction Model of Client Health Behaviour (IMCHB) used as an organising framework for the study and related literature on the study. In the first part of this chapter, the researcher examined three theoretical frameworks and settle on one of them for this study. The second part involves a review of the related literature pertaining to the study. The following databases were searched for relevant articles for the study: “Sage Journal online”, “CINAHL”, “Science Direct”, and “Scopus”. The keywords used for the search were patients’ experience of healthcare, cognitive appraisal, nurse-patient interaction, patients’ satisfaction, theory, and model.

#### **2.1 Theoretical Framework**

The theoretical frameworks identified to be related to the study were Watson’s Theory of Human Caring, 1997; Peplau’s Interpersonal Relationship Theory, 1952 and Cox’s Interaction Model of Client Health Behaviour (IMCHB), 1982. The first two theories are related but not relevant to this study. Watson’s Theory of Human Caring with the constructs of “ the Caritas process, transpersonal caring relationship and the caring moment” explains the caring interaction between the nurses and patients (Noel, 2010, p. 18). The Caritas process is based on nurses kindness and caring and outline interventions for the caring relationship with the patient (Watson & Hoogbruin, 2001). The transpersonal caring relationship according to Jesse and Alligood (2013) involves knowledge and love of self (nurse) and others (patients). The knowledge helps nurses to be mindful of their own ethics, beliefs, and understandings so as to relate well with patients. A caring moment or environment refers to the development of potentials for patients to put up good health behaviours by complying with treatment (Norman, Rossillo, & Skelton, 2016).

However, studies indicate that the Human caring theory is complex with its language and concepts being broad and vague which usually lead to misinterpretation (Lukose, 2011; Wayne, 2016). According to Wayne (2016), the theory lacks empirical studies. Also, the theory has been mostly used in health promotion by occupational health nurses as a guide for practice (Noel, 2010), hence it was not considered for this study.

The second theory, Peplau's interpersonal relationship theory has the components of the nurse, patient, and professional expertise. This theory describes three phases of the relationship between the nurse and patient such as orientation, working and termination phases. Despite the popularity and importance of Peplau's theory of interpersonal relationships in nursing, it lacks much empirical testing (Hagerty, Samuels, Norcini-Pala, & Gigliotti, 2017). Also, the theory though simple leading to its adaptability to nurse-patient interaction, the theory is not applicable to patients who do not have felt needs such as withdrawn patients (Wayne, 2014).

The third theoretical framework considered for the study is the Interaction Model of Client Health Behaviour (IMCHB) developed by Chery Cox in 1982. The IMCHB model has three key constructs such as "client singularity, client-professional interaction and health outcome" (Cox, 198) with each having several sub-components. The model is complex because of its multiple variables and has been used to assess health disparities among clients with different health conditions in different settings.

### **2.1.0 Interaction Model of Client Health Behaviour (IMCHB)**

The IMCHB model is best suitable for the study which is aimed at examining the factors influencing patient satisfaction with nursing care focusing on nurse-patient interaction. The IMCHB model explains the relationships between the client singularity, client-professional interaction and health

outcome (Cox, 1982). The model is able to definitely predict health behaviour because of its multiple variables (Cox, 1982).

The model had been used to assess patients' satisfaction with nursing care (Tang, Hung, Chen, Lin, & Liu, 2015) and aggression among adolescents (DiNapoli, 2003). Also, the model has been found to be useful in conducting studies on the "utilization of cervical cancer screening services among Africa-America Women" (Ackerson, 2011). The IMCHB model has also been used to examine the views of clients about their relationship with health professionals and health outcomes in quantitative studies. For instance, Cox (2003) used the model to assess health promotion behaviours among children who survived cancers. In addition, the IMCHB model has been validated by other researchers of being able to establish the relationships between client-professional interactions and health outcomes (Hickman, Clochesy, & Alaamri, 2016; Mathews, Secrest, & Muirhead, 2008). However, literature seems to suggest that the model has been used little if none in the Ghanaian setting to conduct study hence the researcher intends to use this model as an organising framework for the study. Figure 1 below shows the relationships between the major constructs and their components.

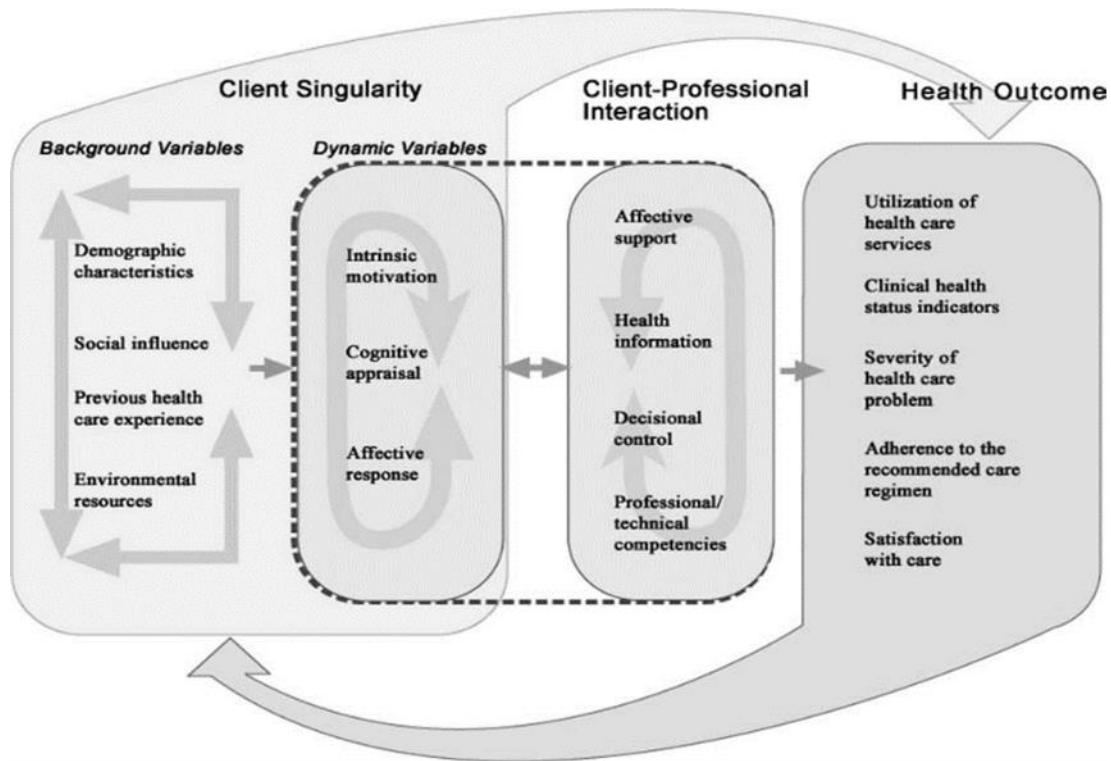


Figure 1: Cox's Interaction Model of Client Health Behaviour (Mathew et al, 2008)

### 2.1.1 Client Singularity

Client singularity, the first construct of the model, comprises of the sub-components of client dynamic variables and client background variables (Cox, 1982). The client's dynamic variables according to the author include "intrinsic motivations, cognitive appraisal, and affective response" (Cox, 82, p.48). Intrinsic motivation is the engagement of an individual in behaviours for the sake of that behaviours and not for another outcome (Patrick & Williams, 2012). The intrinsic motivation of the client also refers to the internal motivation that makes the client put up a health behaviour. It also involves the client's ability to cope with an illness. The client's motivation may decrease because of other factors such as cognitive and affective factors. The cognitive appraisal refers to the client's perception and understanding of his/her

immediate health state. The perception of patients about their illness may or may not be in line with reality. The cognitive appraisal also involves the client's knowledge about his/her illness. Some clients are not hopeful of improvement in the state of their illness due to the meaning they attribute to their sickness or inadequate information on the sickness. The affective response is the expression of emotions of the client to their health needs and his/her readiness to participate in decision making about care. Emotions such as anger, guilt, and fear may occur because of the client health state (pain, diagnosis, duration of treatment or cost of treatment) thereby influencing the way client interact with the provider as well the health behaviour the client puts up.

The client's background variables consists of demographic characteristics, social support from family and significant others, previous healthcare experiences, and environmental resources. Examples of demographic characteristics are age, gender, and educational level. Client's social support system refers to marital status, support from family members and friends. Previous healthcare experience is the clients' experiences of previous hospitalization or visits to the hospital such as frequency, duration, the attitude of provider, the nature of the hospital environment and cost of treatment. The environmental resources include the availability of financial resources or health insurance to help in settling the cost of medications, laboratory tests, and other medical bills.

### **2.1.2 Client-Professional Interaction**

Client-professional interaction is another construct of the model which involves the professional care received by clients and the accessibility of that care to the client. According to Cox (1982), the concept of client-professional interaction has sub-components which comprise the dynamic variables of the professional and the client. The author enumerated the professional dynamic variables as "affective

support, health information, decisional control, and professional/technical competencies” (Cox, 1982, p 51-53). The affective support is described as the health professional’s (nurses’) ability to provide the emotional desires of the clients (Cox, 1982), through self-expression, listening, praises, encouragement, and provision of relevant information. The provision of no or less affective support to clients will result in dissatisfaction. Also, the provision of too much affective support to clients who do not need it will result in dissatisfaction. The health provider must consider the need for affective support according to the client singularity.

The health information is about the health professional’s ability to provide relevant health information to the client regarding his/her condition (Cox, 1982). The provision of health information can be done through health education and the provision of reading materials to the client on his/her condition. Information and knowledge are important in effecting positive health behaviour. Client-Professional interaction and client singularity all influence how clients understand and use the information provided.

The decision control refers to the client expectations to take part in making decisions regarding the clients’ illness and care and involving them in the process (Cox, 1982). According to Chawla and Arora (2013) if clients participate in decision making, it helps improve their sense of self-efficacy to put up healthy behaviours. Decisional control should be based on an appraisal of the client by the health staff. If the client has high emotional needs and negative cognitive appraisal of his/her health state (as a result of inadequate information), decisional control should be limited. Professional/technical competence depends on the other three factors of client-professional interaction. Clients requiring technical skill such as wound care, intravenous infusions and monitoring of vital signs need less decisional control and increase affective support. The requirement of a client for information will depend on the client’s health state and his/her ability to understand information.

### **2.1.3 Health Outcome**

Health outcome is the last key construct in the IMCHB model. Health outcome refers to a measure of the client's health behaviour or health state (Mathews et al., 2008). The health outcome sub-components to comprise the "utilization of healthcare services, clinical health status indicators, the severity of healthcare problems, adherence to recommended health care regimen and satisfaction with care" Cox (1982, p. 53). Each of these constructs will differ subject to the study objective. The utilisation of health care services refers to the extent to which the client uses available health services. Positive health behaviour leads to increase utilization of healthcare services and negative health behaviour leads to decrease utilization of healthcare services. For example, positive health behaviour by hypertensive clients will lead to regular attendance at the hospital for medication and monitoring of blood pressure.

The clinical health status indicators are measures of the physical health, psychological health, and well-being of the client. For example, the measure of the blood sugar level of Diabetic clients and the blood pressure level of Hypertensive clients are health status indicators. The severity of healthcare problems is a measure of the progress, stability or retrogress of a disease or treatment regimen. For example, the reduction of temperature of a client with severe malaria is a measure of the severity of the client's healthcare problem. Adherence to recommended healthcare regimen is the extent to which a client engage in health behaviour that ensures good health such as taking prescribed medications and diet compliance. Satisfaction with care is the extent to which the health provider meets the expectations of a client. The health outcome of client satisfaction is either good or bad. If the interaction between the nurse and client is good and patients' expectations are met then the client will express satisfaction with the care. According to Cox (1982), these five sub-components of the health outcome constructs are very useful for multiple purpose study and will vary according to the aim of the study. The author recommends that only

one constructs should be used in an investigation for measuring health behaviour or health state. For this reason and the objective of the study, the construct of health outcome will be conceptualized in this study to be patients' satisfaction with nursing care. The other constructs that will be included in the study are patients' previous healthcare experience, patients' cognitive appraisal (patient perception of illness), and nurse-patient interaction. These four constructs meet the objective of the study and will, therefore, be considered.

### **2.2.0 Review of Related Literature**

The review of related literature is organized according to the objectives of the study and the hypotheses set out to be tested under the following headings:

1. The concept of patients' satisfaction with nursing care
2. The concept of Nurse-patient interaction
3. Sociodemographic characteristics and patients' satisfaction with nursing care.
4. Patients' previous experience of healthcare and satisfaction with nursing care.
5. Patients' cognitive appraisal (perception of illness) and satisfaction with nursing care.
6. Nurse-patient interaction and patients' satisfaction with nursing care.

#### **2.2.1 The concept of patients' satisfaction with nursing care**

Satisfaction is an emotional state of expressing pleasure and content which is usually manifested as attitude, behaviour or reaction (Gutysz-Wojnicka, Dyk, Cudak, & Ozga, 2013). Patients' satisfaction is defined by Batbaatar et al. (2015) as the ability of the healthcare provider to make available health services that fulfill well with the expectations of patients. Evidence suggests that the concept of patients' satisfaction is multidimensional and is examined in the context of social, psychological and cultural aspects (Graham, 2016). Ng and Luk (2018) identify the attribute of patients' satisfaction in a concept

analysis as providers' attitude, technical competence, accessibility, and efficacy. Other studies have examined patients' satisfaction in the aspect of waiting time, hospital environment and equipment (Chan et al., 2018; Liew & Gardner, 2014). A systematic review between 2001 and 2013 by Goh and Vehvilainen-Julkunen (2016) to assess patients' satisfaction with nursing care during hospitalization indicates that patients' satisfaction was examined by measuring nursing care activities, information provision, nurses technical skills and knowledge, and nurses interactions with patients.

Patients' satisfaction is seen as imperative in assessing patients' health outcome and by large the provision of quality health care and as such usually assessed by health care organizations (Greenslade & Jimmieson, 2011). Patients' needs and expectations are better met when health providers evaluate patients' perspectives on health care (Schoenfelder, Klewer, & Kugler, 2011). Thus, the health provider through the evaluation is able to identify the patient's needs and work towards meeting those needs. Also, patients' satisfaction has become legal and ethical for health providers (Gutysz-Wojnicka et al., 2013) as patients are increasingly becoming aware of their rights.

### **2.2.2 The concept of Nurse-patient interaction**

Historically, nurse-patient interaction was first described by Peplau (1952) in her theory of interpersonal relationship as essential in nursing care (Holsen, Jones, & Birkeland, 2012; Senn, 2013). Since then, nurse-patient interaction in healthcare has gained prominence (Currie et al., 2015; Evans, Deutsch, Drake, & Bullock, 2017; Lindsay et al., 2013; White, 2016). Nurse-patient interaction has been considered important even in nursing activities that require the minimum time to carry out such as vital signs (Vaga, Moland, Evjen-Olsen, Leshabari, & Blystad, 2013). This recognition of nurse-patient interaction in health care and how it affects patient health outcomes such as satisfaction helps to clearly define the role of nurses and the nursing care approaches needed to care for patients (Evans, 2016). For

instance, the relationship between nurses and patients was found to be a most important effect on patients' sense of existence and wellbeing in older people's nursing home in Norway (Haugan, Rannestad, Hanssen, & Espnes, 2012). Good nursing care refers to nurses' attitude, competence, being available to the patients, understanding patients' needs and responding to patients' feelings (Wiechula et al., 2016).

Nurse-patient interaction consists of "affective support, health information, professional competence and decision control" given to patients by nurses (Wagner & Bear, 2009, p. 695). Affective support also called emotional support is the expression of affection and listening during the interaction between two individuals (Law, 2009), as feelings play a significant part in nurse-patient interaction (Cecil & Glass, 2015). The uncertainties of the outcome of diagnosis, cost of treatment and being confined to one place seems to be a challenge to many patients and their relatives during hospitalisation (Smolderen et al., 2010). It is, therefore, the duty of nurses to provide emotional support to these patients and their families when the need arises. Also, the provision of health information to patients is necessary to equip them to manage their illness and also involve them in decision making concerning the care (LaMantia, Scheunemann, Viera, Busby-Whitehead, & Hanson, 2010). Effective teaching of patients by health providers increases the knowledge, skills, and abilities of patients on their health behaviours (Flanders, 2018). Patients' decisional control involves the procedure of making an enabling environment and supporting patients to make decisions pertaining to patient care without controlling them (Lechner et al., 2016a). When patients are involved in the clinical decision making, both patients and health providers benefit (Ghane et al., 2014). For example, Veilleux et al. (2018) indicated that shared decision making between physician and patients resulted in the transfer of quality information to patients which eventually resulted in patient satisfaction and reduction in anxiety among patients. Relatedly, a quantitative study

conducted among physicians and nursing staff caring for patients with acute myocardial infarction in Sweden indicates that patient involvement improves their work (Arnetz & Arnetz, 2009a).

Lastly, professional competence is the ability to respond to many situations in professional practice using experience, attitude, and ethics (Camelo & Angerami, 2013). The most common domains of professional competence identified by DeGrande, Liu, Greene, and Stankus (2018) were decision making, teamwork and the ability to manage situations. In nursing as a discipline, the professional competence of the nurse is critical in the provision of quality nursing care to patients (McHugh & Lake, 2010). Competent nurses provide care that meets the health needs of patients (Campinha-Bacote, 2011). In this current study, nurse-patient interaction is conceptualised as patients' perception of his/her relations/communications with nurses during the period of hospitalization.

### **2.2.3 Sociodemographic characteristics influencing patients' satisfaction with nursing care**

Socio-demographic characteristics (age, gender, educational status, income status, health status, and social support system) of the patient are usually included in the assessment of patient satisfaction because of its influence on patient satisfaction with care (Milutinovic, Simin, Brkic, & Brkic, 2012a). Socio-demographic characteristics are often assessed during hospitalization to help the health personnel to gather information to plan and carry out individualised care for patients. Also, health personnel are more likely to interact well with patients during hospitalization if they understand the demographic and social characteristics of patients. Though frequently assessed, some patients' socio-demographic characteristics influence on patient satisfaction are sometimes often weak, inconsistent or have no correlation in any way (Hekkert, Cihangir, Kleefstra, van den Berg, & Kool, 2009).

Notwithstanding, patients' age have been found to be the most consistently predicted factors affecting patients' satisfaction, as elderly patients turn to be more satisfied than younger patients (Charalambous, 2013a; Findik, Unsar, & Sut, 2010a; Hekkert et al., 2009; Milutinovic et al., 2012a). For example, Milutinovic et al (2012) conducted a quantitative study to assess the association between patient satisfaction and patient characteristics in Serbia. They found elderly patients to have higher satisfaction than patients that were young. According to Palesh et al. (2010), younger people have greater expectation than older people as such the later turns to better appreciate health service provided and vice versa. Also, older patients are frequently admitted to hospital (Morandi et al., 2013) and are more likely to have decrease expectations as the number of visits increase. In contrast, Anastasios Merkouris et al. (2013) in their study using explorative, descriptive design, they evaluated the level of satisfaction with nursing care and its relationship with patients characteristics among inpatients of medical and surgical wards in Cyprus. This study established that age did not significantly relate to patient satisfaction as suggested by other authors. Despite this, age is largely considered as the most important element of patients' satisfaction.

Gender as a predictor on the satisfaction of patient with nursing care varies among different studies as compared to age. For example, a quantitative study to assess how patient satisfaction is associated with patient characteristics in Turkey found gender to significantly predict patients' satisfaction with care with the male patients having a high level of satisfaction than the female patients (Findik et al., 2010a). Similarly, a quantitative study conducted using a sample size of 1,340 operative patients in the USA to determine the patients' factors that are associated with patients' satisfaction with care by nurses, found that female patients are less satisfied as compared to male patients (Danforth et al., 2014). The lower satisfaction of female patients may be attributed to the socio-cultural notion that women take more cognisance of their health, need more attention and are more hesitant on the evaluation of care that is of

quality. However, Mitropoulos, Vasileiou, and Mitropoulos (2018) found that gender did not significantly relate to patient satisfaction. This confirms the earlier position that gender is inconsistent in determining patient satisfaction.

Patients' educational status is another dimension of the patient characteristics that predicts patients' satisfaction. A quantitative study involving 7,245 patients aged 20 and above responded to a survey to examine the correlates of patients' characteristics and level of satisfaction by patients' in Sweden (Rahmqvist & Bara, 2010). This study indicated that patients' satisfaction increased from low educational status to high educational status. Also, Fekadu, Andualem, and Yohannes (2011) conducted a cross-sectional survey in Ethiopia involving 422 patients to assess patients' perceived satisfaction with healthcare. These authors found that patients with high educational status reported lower levels of satisfaction than those with no education. The educational level influence of patient satisfaction can be partly as a result of what Zarei, Arab, Froushani, Rashidian, and Tabatabaei (2012) indicated that highly educated people have high expectations as compared to the low educated people.

Social characteristics is another patient factor that predicts patients' satisfaction with care. Social support system for a patient admitted to the hospital includes financial and relational support available to the patient to help them cope with the illness. A systematic review to examine how social support correlates with the coping and quality of life of patients who survived prostate cancer in the UK (Paterson, Jones, Rattray, & Lauder, 2013). The authors found social support to significantly predict life satisfaction with patients who had satisfactory social support highly satisfied in life. Also, a study using a sample size of 949 patients on dialysis to examine the association between social support and satisfaction among patients with peritoneal dialysis and haemodialysis in 77 clinics in the USA (Plantinga et al., 2010). This

study found that a high level of social support was related to a high level of satisfaction with a lower risk of hospitalisation. Finally, social support predicted healthy life satisfaction after heart transplantation in 4 medical centres in the USA (White-Williams et al., 2013) and in patients with Multiple Sclerosis in Portugal (Costa, Sa, & Calheiros, 2017).

#### **2.2.4 Patients' previous experience of healthcare and patients' satisfaction with nurse care.**

Patient satisfaction has been determined by various factors. The patients' previous experience with the healthcare system has been one example of the patients' characteristics that influence patient satisfaction with nurse-patient interaction (Charalambous, 2013a; Milutinovic et al., 2012a). A quantitative survey involving 240 participants to assess how patient satisfaction is associated with patient characteristics in Serbia found that 60.9% of patients hospitalized before were highly satisfied compared to patients hospitalised for the first time (Milutinovic et al., 2012a). These suggest that patients who were previously admitted might have a positive experience with the hospital environment and staff thereby making them more satisfied. On the other hand, if patients had a negative experience from the health providers in their previous hospitalization or encounter, they are likely to be dissatisfied. Also, a descriptive study to assess the variations of cancer patients' satisfaction in cancer centres in Cyprus found patients with the previous hospitalization to be more satisfied with care than those firstly admitted (Charalambous, 2013a). Patients newly diagnosed with cancer would be usually worried because of the debilitating nature of cancer and its associated management (Coyne & Tennen, 2010b) hence experiencing low satisfaction with care. These studies suggest the need for clinicians to give the necessary attention to newly admitted patients in every aspect of clinical care delivery so as to increase their level of satisfaction.

Past and recent studies have suggested that patient characteristics such as patients' regularity in hospital determine patients' satisfaction (Batbaatar et al., 2017a; Kersnik, 2001; Qatari & Haran, 1999).

Thus, patients who had regular previous experience of healthcare are more likely to be satisfied. For example, Batbaatar et al. (2017a) conducted a systematic review to identify the determinant of patients' satisfaction and revealed that patients who visit the hospital often were found to be more satisfied with the service provided. Also, Smith et al. (2018) examined the influence of office visits on clients' satisfaction before elective hand surgery and found a significant association between regular office visits and client satisfaction variables. This assertion was supported by Noyes Jr, Kukoyi, Longley, Langbehn, and Stuart (2011) who reported that regular visits to health care settings ensured continuity of care, early identification of illness and effective evaluation of health care. This enabled that clinicians carry out appropriate intervention to meet patients' needs and thereby increasing the patients' level of satisfaction. However, the number of visits by patients to primary health care centres did not correlate with the level of satisfaction by the patients in some seven selected countries in Europe (Sa´nchez-Piedra, Garcı´a-Pe´rez, & Santamera, 2014).

Patients' interval of stay in hospital is another experience of patients with a healthcare system that has been found to determine patients' satisfaction with healthcare. Several studies have been conducted on length of stay in hospital (Barba et al., 2015; Cournane et al., 2015; Fontaine et al., 2011; Vetrano et al., 2014) and these have indicated varied views as to how patients' interval of stay in the hospital has influenced patients' satisfaction. A quantitative study conducted by Borghans, Kleefstra, Kool, and Westert (2012) to examine the relationship between the interval of stay and patients' satisfaction in a Dutch hospital ward found no evidence of a relationship between the length of stay in the hospital and patients' satisfaction. Similarly, the interval that patients stay in the hospital was established to have no connection with patient satisfaction in Poland (Gutysz-Wojnicka et al., 2013). Also, Batbaatar et al. (2017a) conducted a review between 1980 and 2014 to identify the determinant of patient satisfaction.

These authors found no clear association between the number of days spent by patients in the hospital and their level of satisfaction. These studies suggest that nurses should provide efficient care to patients on every available opportunity that arises during hospitalization.

Notwithstanding, Findik et al. (2010a) conducted a study in Turkey to assess how patients' satisfaction is related to patient characteristics and found in their study that patients who stay lengthier in the hospital are most satisfied compared to those who spent shorter days at the hospital. Patients with longer stay would form a good relationship with the clinician (Nilsen, Sereika, & Happ, 2013) so as to meet all their health needs hence would experience much of the nursing care and would be likely to experience a greater level of quality care.

Other studies have indicated that a shorter duration of patients hospitalisation results in higher levels of satisfaction and vice versa. For instance, Mistry et al. (2016) found a negative relationship between the length of hospitalisation and patients' satisfaction in a study conducted among Total Hip Arthroplasty (THA) patients in the USA. These authors indicated that patients' who stay shorter in hospitals have higher satisfaction levels than those who stay longer. The satisfaction according to several researchers as a result of the shorter stay has enormous benefits such as decreased cost of treatment (Padegimas et al., 2016) and decreased risk of hospital-acquired diseases (Hassan, Tuckman, Patrick, Kountz, & Kohn, 2010).

Specifically, nursing care seems to determine largely the overall satisfaction of the patient with healthcare. Tanniru and Khuntia (2017) showed in their study to determine the relationship between patients experience dimensions and their level of satisfaction in an emergency unit that the experience of good nursing care directly influences high overall satisfaction. Similarly, patients experience of nursing

care was found to have the greatest influence on the overall patient satisfaction with care in a quantitative study conducted in the USA with the aim of identifying the dimensions of hospital care and the most influential of patient satisfaction among older adult inpatients (Chumbler et al., 2016). Given the significant role nursing care play in the overall satisfaction of patients, improvement in nursing care will go a long way to improve patient satisfaction with health care and service quality at large.

Other studies have indicated the fraction of nursing care that explained patients' satisfaction. A quantitative study by Palese et al. (2011) to determine the relationship between surgical patients' experience of care and patient satisfaction in six countries in Europe found that nurses' caring behaviours were a major predictor of patient satisfaction. The study found that the proportion of patients' satisfaction (41.1%) was explained by perceived nurses caring behaviours. These authors further revealed that nurse care behaviours influence critical health outcomes such as treatment adherence, health services utilisation and the behaviour of patients towards the healthcare system. Furthermore, patient satisfaction was predicted by individualised nursing care in five counties in Europe (Suhonen et al., 2012). Their study found that the proportion of patients' satisfaction (47%) was explained by individualised nursing care.

#### **2.2.5 Patients' cognitive appraisal (illness perception) and patients' satisfaction with nursing care.**

According to Fournier (2010), Cognitive Appraisal is an evaluative judgment of a situation. Also, Cognitive Appraisal is referred to as a personal understanding of a condition (Nadeem, Majeed, & Khan, 2016). Implicitly patients' cognitive appraisal can be explained as the perceptions, interpretations, judgment or understanding that patients have about their illness or treatment. It can also be referred to as the illness perception of the patient. According to Leventhal's Common Sense Model of illness (1996), individual patients suffering from illness have a unique emotional and cognitive depiction of their illness (Leventhal et al., 2016). Some patients perceive their illness as a threat, challenge or loss/harm to them or

their family(Ahmad, 2010). Patient perception of their illness may inform their health behaviour or health outcome.

Recently, research on illness perception and its influence on patient health outcomes especially patient satisfaction has gained prominence (Coyne & Tennen, 2010b; Han, Liu, Qiu, Nie, & Su, 2018; McCorry et al., 2013; Rezaei, Neshat Doost, Molavi, Abedi, & Karimifar, 2014). For instance, positive illness perception was found to relate with positive health outcome among breast cancer patients in the USA (Coyne & Tennen, 2010b). This suggests that once the patients have positive health outcome, they are more likely to be pleased with care. These authors recommended that statistical manipulation should be employed to control confounding variables such as health status, material resources, and social support systems as they are likely to report the positive psychological state of patients. In a Similar study, Damme-Ostapowicz et al. (2014) in a survey examined the level of illness acceptance, the level of satisfaction of life among patients with malaria in Nigeria and the level of trust they have with physicians and nurses. The study indicated that the level of acceptance of illness was significantly correlated to the life satisfaction of patients with positive perception about their illness are highly satisfied with life.

Also, a correlational study conducted using a sample size of 80 patients to evaluate the association between patients generalised anxiety disorder (GAD) perception of life satisfaction and their illness perception in Pakistan (Nadeem et al., 2016). These researchers indicated a significant positive relationship between life satisfaction and illness perception. The study further revealed that GAD patients who were highly stressed were dissatisfied compared to those with low stress. Furthermore, McCorry et al. (2013) examined illness perception among breast cancer women in the United Kingdom. The study involved 90 women who completed a questionnaire which consisted of “the Illness Perception Questionnaire, the Cancer Coping Questionnaire, and the Hospital Anxiety and Depression scale” at pre-

test (the period of diagnosis) and post-test (the same material 6 months after discharge). It was found that patients with positive illness perception have lower psychological distress both at the pre-test and post-test. Hence, patients with positive illness perception are more likely to be satisfied than those patients with negative illness perception.

Other studies have indicated that illness perception has an effect on patients' satisfaction to treatment. For example, a study conducted by Haddad et al. (2018b) to evaluate the effect of the perceived meaning of illness on treatment satisfaction of statin among patients with dyslipidemia (abnormal amount of lipids in the blood) in Lebanon found a positive significant association between the two variables. Patients who perceived dyslipidemia as a challenge often complied with the treatment and had normal lipid levels thereby decreasing their risk of heart diseases and having a satisfactory life. In the same vein, a cross-sectional study conducted by Broadbent, Donkin, and Stroh (2011) to examine patients' perception of their illness and its association with medication adherence of diabetic patients with a sample size of 49 type 1 and 108 type 2 diabetic patients found that a lower perception of the consequences of diabetes was positively associated with medication adherence. Diabetes has been a chronic condition, patients' knowledge and perception on the condition is usually required for adherence to treatment. Another study by Ben-Ezra et al. (2015) to examine the contribution of cognitive appraisal in the psychological adjustment of patients with irritable bowel disease in Israel revealed, that higher psychological distress and depressive symptoms are associated with lower levels of positive cognitive appraisal.

Contrarily, Mazanec, Daly, Douglas, and Musil (2011) examined the association between the cognitive appraisal of patients and their psychosocial coping after radiation treatment in a correlational

study in the USA involving 80 cancer patients. The study found that cognitive appraisal was not associated with patients' psychosocial coping during the treatment process.

### **2.2.6 Nurse-patient interaction and patients' satisfaction with nursing care**

Studies previously conducted on nurse-patient interaction indicates that it affects patients' satisfaction with care (Dahlem et al., 2015b; Sa´nchez-Piedra et al., 2014). For instance, Sa´nchez-Piedra et al. (2014) examined the elements influencing patient's satisfaction in seven primary health care centres in Europe and indicated that the provider-patient relationship was related to patient satisfaction. In this study, the availability of a doctor was found to be the most influential ( $p < 0.001$ ) of patients' satisfaction. This finding is affirmed by a similar quantitative study in the USA by Dahlem et al. (2015b) using a sample size of 204 African American pregnant women to examine their views on the relationship between patients and providers and its effect on antenatal care and compliance to healthy behaviours. The researchers found that patient-provider interaction has significantly ( $P < 0.001$ ) predicted patients' satisfaction with prenatal care with quality patient-provider interaction leading to higher levels of patients' satisfaction. However, in this study patient-provider interaction did not affect patients' compliance to prenatal health behaviours.

Evidence from several studies suggests that the general satisfaction level of patients with healthcare is largely is related with patients' satisfaction with nursing care especially the nurse-patient interaction (Anastasios Merkouris et al., 2013; Mitropoulos et al., 2018; Tejero, 2012a). For instance, Mitropoulos et al. (2018) in their study using a sample size of 5467 inpatients in 42 hospitals in Greece to ascertain the predictors (health service quality, patient characteristics and institutional characteristics) of inpatients satisfaction, found that service quality dimension of nurses' communication to significantly predict patient satisfaction (OR 1.46;  $P < 0.001$ ) followed by doctors communication (OR 1.43;  $p < 0.001$ ). The study further revealed that the physical environment of the hospital although significantly (OR 1.46;

$P < 0.001$ ) predicted patients' satisfaction, nurses communication predicted patient satisfaction the most. The authors, therefore, recommended an improvement in the behaviour of health professionals. This suggests the importance of health professionals (nurses) relational behaviour in patients' satisfaction even though in nurse-patient interaction the behaviour of both health professionals (nurses) and patients are needed to achieve patients' satisfaction. Tejero (2012a) revealed in research conducted to investigate the association of nurses' characteristics, patients' characteristics and patients' satisfaction. The author further revealed that the nurse-patient relationship is related to patients' satisfaction

Additionally, other studies have indicated that nurses interactions with patients greatly contributes to patient satisfaction with nursing care. Carretta, Bond, Cappiello, and Fantini (2017b) conducted a study to ascertain the aspects of patients' hospital experience that predicted patients' satisfaction. The sample size used for the study was 3320 patients from a public hospital in Italy. Rasch Model analysis of the data revealed that among the medical care dimension of patients' hospital experience, the courtesy and kindness of nursing staff reported higher level satisfaction. Also, a study in Nigeria by Lawal, Agbla, Bola-Lawal, Afolabi, and Ihaji (2018) to evaluate the level of satisfaction with care received at a public hospital reported a higher level of satisfaction among patients. In the study, the majority (60.5%) of the patients felt content with their relationship with the healthcare providers at the hospital. Furthermore, (Haugan et al., 2013a) conducted study using cross-sectional design involving a sample size of 202 with the aim of examining the relationship between nurse-patient relations and hopefulness among patients in a nursing home in Norway. In the study, it was revealed that nurses interactions with the patients significantly ( $P < 0.05$ ) influenced the hope of nursing home patients.

In the Ghanaian setting, Atinga, Abekah-Nkrumah, and Domfeh (2011a) conducted a study to assess the influence of provider-patient interaction, waiting time and hospital environment on patient

satisfaction in Northern Ghana. The authors revealed that provider-patient interaction predicted patient satisfaction the most which corroborate with the current study. Relatedly, Fenny, Enemark, Asante, and Hansen (2014) in their study to ascertain the association between overall satisfaction and quality care dimensions in Ghana and found nurses interpersonal relationship with patients as one of the key factors to have predicted patient satisfaction.

Nurse-patient interaction in the health care settings occurs in various forms such as emotional support, provision of relevant health information, shared decision making and provision of competence care. With regards to emotional support, nurses were found to provide emotional support that met the needs of patients with a terminal illness in the United Kingdom by listening, empathizing and performing an ongoing assessment which resulted in high satisfaction with care (Law, 2009). Also, Registered Nurses in a municipal elderly setting in Sweden reported that giving emotion support to older patients helped to relieve them of their emotions which enabled the patients to cope with everyday life (Pejner, Ziegert, & Kihlgren, 2015). This implies that once patients are able to cope with their daily life they are likely to be satisfied. Despite the importance of emotional support to patient care, evidence suggests that nurses are not able to provide adequate emotional support to patients. For example, a qualitative study conducted by Hsu and colleagues in the USA to assess health providers' responses to Human Immunodeficiency Virus (HIV)-infected patients' emotions needs found that health providers do not give emotional support to the patients when there was a need (Hsu et al., 2012). The study further indicated that health providers either ignored, dismissed, elicited information or empathized with the patient and only attended to the underlying cause of their emotions without giving emotional support. Similarly, Spears (2008) in their study to explore emotional support given to cancer patients by nurses in the United Kingdom revealed that there were instances where nurses negatively supported patients emotionally. The author concluded that nurses

played a key role in the provision of emotional care to cancer patients. The reasons for the lack of emotional support given to patients by nurses have been attributed to inadequate knowledge, workload or poor attitude of the nurses (Norell, Ziegert, & Kihlgren, 2012).

In the same vein, relevant information provided to patients enable them to understand and make a clinical decision regarding their condition and care (Griffith, 2018) thereby making patients more likely to be satisfied. For instance, Tang et al. (2015) conducted an interventional study in Taiwan using a quasi-experimental design with a sample size of 103 to examine the influence of stroke patients knowledge on stroke. The study revealed that the experimental group had a significantly high level of knowledge and cognition on the risk of stroke than the control group. Once the hypertensive patients have adequate knowledge on the risk of stroke they are more likely to make decisions to prevent themselves from getting stroke, hence will be satisfied in life.

However, nurses often provide insufficient information to the patient during care (Furukawa et al., 2014). A qualitative study to explore the interactions between nurses and patients with regards to the provision of information during nursing care using the shared decision model was conducted in the United Kingdom by Crispin, Bugge, and Stoddart (2017). These scholars found that both nurses and patients perceived that the information given to patients was sufficient. However, observations by the researchers revealed that information exchange was not sufficient as a result of lost opportunities, issue of power control and nurses withholding key information. Similarly, a cross-sectional study conducted in China to evaluate and compare the health information required and information received from nurses and doctors by patients with cancer and their relatives (Xie, Su, Liu, Wang, & Zhang, 2015) found that overall cancer patients and their relatives significantly receive less health information from nurses and doctors than they needed. This study further revealed that health information received on contemporary and alternative

medicine and psychosocial aspects was less. These findings called for the need for health professionals especially nurses to provide more health information to patients on key aspects of their condition.

Additionally, a positive nurse-patient interaction through patient involvement in clinical decision making increase patients' level of satisfaction. Shabason, Mao, Frankel, and Vapiwala (2014) in their study revealed that shared decision making is related to satisfaction of patient during radiotherapy. The proportion (84.4%) of the patient in the study who experiences shared decision was very satisfied with their radiation treatment. Once the patient is involved in their treatment they feel recognised and respected and will be more likely to exhibit positive health behaviours hence more likely to be satisfied. Also, shared decision making between health professionals and patients result in the transfer of quality information to patients which eventually result in patient satisfaction and reduction in anxiety (Veilleux et al., 2018). This suggests the need for nurses to involve patients in planning, diagnosing and implementing nursing care that meets patients' health needs so as to increase patients satisfaction.

However, patients' preferences for decisional control vary among patients with different conditions and patient characteristics (Ghane et al., 2014). For example, a quantitative survey conducted in Germany with a sample size of 102 found that cancer patients preference for decision control were 49%, 29% and 22% for patients who want to take part in their treatment decision, those who want physicians alone and those who want to have control in their treatment decision respectively (Schuler et al., 2017). The study also revealed that older patients prefer to leave decisions to the health provider while gender was not associated with patients' decision control preferences. In a similar study using a sample size of 1490 cancer patients in 11 countries, Yennurajalingam et al. (2018) indicated that the frequency for preference for passive decision control was less (23%) than the preference for shared decision control

(33%) and active (44%) decision control. Overall, the majority (93.1%) of advanced cancer patients receiving palliative care were satisfied with how decisions were made.

Furthermore, Arnetz and Arnetz (2009b) examined the possible gender difference among Myocardial Infarction (MI) patients in shared decision making during hospitalization and found no significant difference in gender. However, female patients preferred to be more involved in making decisions about their care than their male counterparts. The majority (86%) of the MI patients were of the view that their involvement in the care and treatment was important. Lechner et al. (2016b) in their study to investigate the decision control preferences among older adult patients found that overall, most (46%) of the patients preferred to be actively involved in decision making, 30% prefer shared role and 23.9% preferred passive role. Younger patients (<65 years) preferred to be actively involved in decision making while older patients ( $\geq 65$  years) preferred to be passively involved in decision making. The findings indicate the need for nurses to assess individual patients to ascertain the level of decision control preference of the patients before engaging such patients.

Another body of evidence suggests that nurse-patient interaction through competence nursing care influences patient satisfaction. Kvale and Bondevik (2010) conducted a qualitative study using a sample size of 20 cancer patients and found that patients perceived nurses knowledge and skills on cancer and its treatment to result in their security, safety, and alleviation of suffering. This suggests that nurses should improve their competence to gain trust by patients and also help meet their health needs. Improving nurses' knowledge and skills in nurse-patient interaction through training programs will increase the level of patients' satisfaction with nursing care. This was indicated in a study in Singapore to compare the level of patient satisfaction among patient on a structured program that enhances the nurse-patient relationship

and patients who received standard treatment (Huiting & Ziqiang, 2013). These authors found that patients with an enhanced nurse-patient relationship were more satisfied than the control group.

#### **2.4 Conceptual framework of the Study**

The conceptual framework of the study as presented in a diagram shown in figure 2 consists of some selected key construct from the theoretical framework (IMCHB). These included patients' previous nursing care experience, patients' cognitive appraisal, nurse-patient interaction, and patients' satisfaction. The modification was done to suit the current study since the constructs in the theoretical framework are many as suggested by Cox (1982). The dependent variable in the study would be 'patients' satisfaction with nursing care' and the independent variables are 'patients' previous nursing care experiences, patients' cognitive appraisal, and nurse-patient interaction'. Patients' previous nursing care experiences is anticipated to significantly and positively predict patients' satisfaction with nursing care. Also, patients' cognitive appraisal is anticipated to significantly and positively predict patients' satisfaction with nursing care. Additionally, nurse-patient interaction is expected to significantly and positively predict patients' satisfaction with nursing care. Finally, patients' previous nursing care experience, patients' cognitive appraisal and nurse-patient interaction combined is anticipated to significantly and positively predict patients' satisfaction with nursing care.

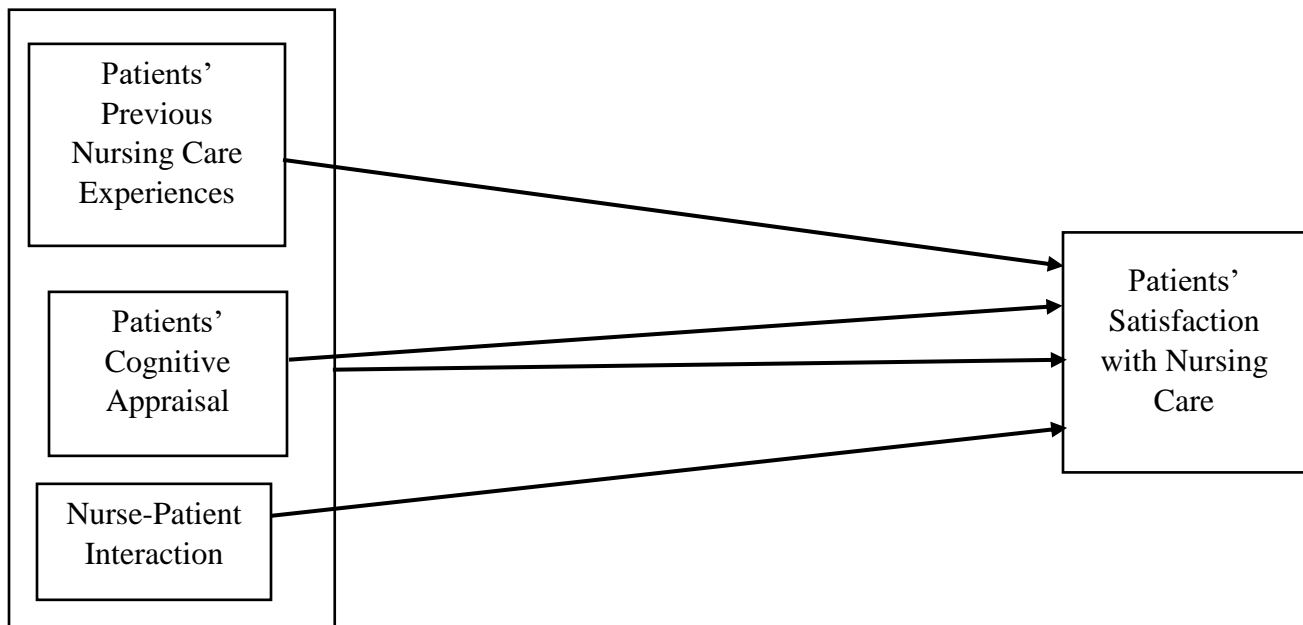


Figure 2: Conceptual framework of the study

## 2.5 Statement of Hypotheses

This study seeks to test the under listed hypotheses:

Hypothesis 1: There is a significant and positive relationship between patients' previous nursing care experience and patients' satisfaction with nursing care.

Hypothesis 2: There is a significant and positive relationship between patients' perception of illness and patients' satisfaction with nursing care.

Hypothesis 3: There is a significant and positive relationship between nurse-patient interaction and patients' satisfaction with nursing care.

Hypothesis 4: Patients' previous nursing care experience, patients' cognitive appraisal, and nurse-patient interaction will significantly explain at least 50% of the variance in patients' satisfaction with nursing care.

## **CHAPTER THREE**

### **METHODS**

#### **3.0 Introduction**

This chapter comprises the methods followed through in the conduct of this study. The chapter is under the headings: the design, setting, population and sample, sample size, measures, pre-test of the questionnaire and data collection procedure. The chapter also includes data entry and management, data analytic strategy and ethical consideration.

#### **3.1 Research design**

The study employed a quantitative approach as it allows for generalization to be made from a sample drawn from a population. Also, the quantitative approach has the ability to establish objective, reliable and valid information about the study as well as allow testing of the hypothesis. Additionally, the study adopted a cross-sectional design. This type of design is used to gather data at a specific period of time without following the participants later for information to learn about their characteristics (Busk, 2014). The design is suitable for defining the characteristics of phenomena under study or how these phenomena are related to a given period of time (Polit & Beck, 2010). A cross-sectional design was suitable for the study for the reason that there is a limited time for the master of philosophy programme and relatively low cost as compared to other designs. The cross-sectional design facilitated the examination of the factors (patients' previous nursing care experience, cognitive appraisal, and nurse-patient interaction) influencing patients' satisfaction with nursing care. These variables were examined using inferential statistical measures.

#### **3.2 Research Setting**

The Upper East Region formerly called the Upper Region (Upper East and Upper West Regions) was separated from the Northern Region in 1960. The Upper East Region has its regional capital at Bolgatanga, popularly called Bolga. The Region shares boundaries with Burkina Faso at the north, Upper West Region at the west, with the Republic of Togo at the east and to the south with

the Northern Region. The Region has a total land area of about 8,842 square kilometres with flat land and few hills. According to the 2010 population and housing census report from the Ghana Statistical Services (GSS), the Upper East Region has a total population of 1,046,545 people (GSS, 2012). The Region is divided administratively into fifteen (15) Municipalities and Districts Assemblies namely the Bolga Municipal, Bolga East District, Bawku Municipal, Bawku West District, Pusiga District, Binduri District, Kassena-Nankana West District, Kassena-Nankana East District, Bongo District, Talensi District, Nabdam District, Garu District, Tenpane District, Builsa North District, and Builsa South District. The religious groupings in the region are Christian, Traditionalist, and Islam. The languages spoken by the people in the Region are Gurune, Builsa, Kassem, Nankane, Kussal, Nabdan, and Talene.

The Regional Hospital was the setting for the study and is located in Bolga Municipal precisely Zaare community. The hospital is situated about 200 meters close to the Ghana Broadcasting Co-operation. The Hospital was established on 13<sup>th</sup> January 1953 to take care of a small number of patients. The Regional Hospital currently has a total bed capacity of 381 after some rehabilitation works completed in 2016. The hospital remains the largest hospital in the Region and receives referrals from the District Hospitals, Health Centres, and Private Hospitals. The hospital currently has a staff strength of 612 with a nurse to patient ratio of 1:18 (Annual Performance Review Report, 2017).

### **3.3 Population and Sample**

The study population refers to all the people who meet the specific condition for the study (Alvi, 2016). It is also the population that the researcher will be inferring the findings of the study. For this study, the population was adult inpatients (males and females) hospitalised at the Medical and Surgical Wards at the Upper East Regional Hospital, Bolgatanga.

The inclusion criteria were:

- The participants that were included in the study were male and female adult inpatients 18 years and above.
- The duration of stay at the hospital for qualified participants was inpatients hospitalised for at least 72 hours.

The exclusion criteria were:

- Patients who were in pain, critically ill or unstable upon assessment by staff as evidenced by the stability report in the patient folder.

The participants in this population were selected using simple random sampling technique. In this technique, each participant in the study has an equal opportunity of being nominated (Creswell, 2014). The researcher obtained a list of the patients daily from the admissions and discharge book and a random sample drawn from it. The random sampling enables the researcher to obtain a sample that reflects the true characteristics of the study population thereby making generality of the study findings to the population.

### **3.4 Sample size**

The sample size was drawn from the accessible population for the study that is inpatients at the Medical/Surgical Wards. The accessible population was determined by calculating the average of a two-month period of patients' hospitalised at the Male and Female Medical/Surgical Wards. Data from the Upper East Regional hospital quality assurance committee indicated that an average of 600 patients were hospitalised to the medical/surgical wards for the months of July and August 2018. From this data, the sample size was determined by using Yamane (1967) sample calculating formula as follows:

$$n = \frac{N}{1+N(e)^2}$$
 Where n= sample size required, N= total population for the period of two months and e= error of tolerance (0.05).

Therefore  $n = \frac{600}{1 + 600(0.05)^2} = 240$ . But to address the issue of non-responses to the questionnaire, the researcher decided to add 20 participants to the sample size to make up a sample size of 260 participants.

### **3.5 Measures**

The questionnaire attached for the study consisted of socio-demographic characteristics of the participants and four instruments developed by other researchers that measure the constructs of patients' previous nursing care experiences, cognitive appraisal, nurse-patient interaction, and satisfaction with nursing care.

#### **3.5.1 Socio-demographic characteristics of participants**

The demographic characteristics of patients admitted to the Male and Female Wards of the Upper East Regional Hospital, Bolgatanga. The information includes age, gender, religion, educational status, marital status, social support, employment status, health insurance status and duration of admission.

#### **3.5.2 Cognitive Appraisal Health Scale (CAHS)**

The scale was initially developed by Kessler (1998) to measure the cognitive appraisal of women diagnosed with breast cancer. The CAHS scale measures the illness cognition or patients' perception of illness. The CAHS scale has 13 items on a 5-point Likert scale (where 1= Strongly Disagree, 2= Disagree, 3=Neither 4= Agree, 5= Strongly Agree). It has 3 sub-scales; the threat appraisal sub-scale comprising of item 1,7,10,11 and 12 which measures threat from patients illness; the harm/loss appraisal sub-scale comprising of item 2,3,6,8 and 9 which measures harm/loss caused to the patients by the illness; and challenge appraisal sub-scales. Higher scores indicate agreement with the appraisal item. Validation of the scale was done with prostate cancer patients by Ahmad (2005) and a Cronbach's alpha of 0.70 was reported. The CAHS scale was again validated by Ahmad (2010) and found to be appropriate for assessing male and female patients diagnosed with acute and

chronic illness. In this study, the CAHS scale was considered appropriate for measuring medical and surgical patients' perception of their illness. Reliability analysis on the 13 items CAHS scale found the scale to be reliable with overall Cronbach's alpha of 0.79. The subscales of challenge and harm/loss having Cronbach's alpha of 0.93 and 0.91 respectively while the threat subscale had a Cronbach's alpha of 0.69.

### **3.5.3. Picker patient Experience (PPE) questionnaire**

This questionnaire was developed by Jenkinson, Coulter, and Bruster (2002). The questionnaire measures patients' experience with in-patient care. The PPE questionnaire has a Cronbach's alpha of 0.86 and comprises of 15 items with answers for participants to select. The PPE questionnaire was considered appropriate for assessing patients' previous health care experience in this study. Hence, the scale was adopted, modified and used to assess patients' previous experience with nursing care. Question 1 was deleted because it is a repetition of item number 2 and not relevant in the current study. For instance, question 1 which read "*When you had important questions to ask a doctor, did you get answers that you could understand*" and question 2 which read "*When you had important questions to ask a nurse, did you get answers that you could understand*"

Additionally, six (6) questions were reworded to suit the study and for easy understanding by the participants. For instance, Question 9 "*Did you find someone on the hospital staff to talk to about your concerns?*" became '*Did you find a nurse to talk to about your concerns?*' Question 11 "*If your family or someone closed to you wanted to talk to the hospital staff did they have enough opportunity to do so?*" became '*If your family or someone close to you wanted to talk to nurses, did they have enough opportunity to do so?*' Question 12 "*Did the hospital staff give your family or someone close to you all the information they needed to help you recover?*" became '*Did nurses give your family or someone close to you all the information they needed to help you recover?*' Question 13 "*Did a member of staff explain the purpose of the medicines you were to take at home in a way you could*

*understand?"* became *'Did a nurse explain the purpose of the medicines you were to take at home in a way you could understand?'* Question 14 *"Did a member of staff tell you about medication side effects to watch for when you went home?"* became *'Did a nurse tell you about medication side effects to watch for when you went home?'*

Finally, question 15 *"Did someone tell you about danger signals regarding your illness or treatment to watch for after you went home?"* Became *'Did a nurse tell you about danger signals regarding your illness or treatment to watch for after you went home?'* Also, question 5 was found to be a repetition of 4 and was deleted. This modification accounted for the 13 questions from the PPE questionnaire included in the instrument used for the study. Following the pre-test, the overall Cronbach's alpha was 0.72.

### **3.5.4 Nurse-Patient Interaction Scale (NPIS)**

The nurse-patient interaction (NPI) scale was developed by Haugan et al. (2012). This scale measures the relationship between the nurses and their patients during nursing care. According to Haugan and Colleagues, "the NPIS has a Cronbach's alpha of 0.91 and comprises of 14 items measured on a 10-point scale ranging from 1 (not at all) to 10 (very much)". Higher numbers specify that there is good nurse-patient interaction. The NPIS scale was again used by (Haugan et al., 2013a) to examine how nurse-patient interaction is related to hope among patients with complete memory in a nursing home. In this study, the NPIS scale was used to assess nurse-patient interaction among medical and surgical patients. The scale was modified by reducing the 10-point scale to a 4-point scale (where 1= not at all, 2= Very little, 3= Somewhat, 4= Very much) for the current study. Reliability analysis on the NPIS scale comprising of 14 items found a Cronbach's alpha of 0.76. Most items on the scale appeared worthy of retention as deletion of any of them resulted in a decrease in the alpha.

### **3.5.5 Newcastle Satisfaction with Nursing Scale (NSNS)**

The NSNS is a subscale of Satisfaction of Nursing care Scale, developed by Thomas, McColl, Priest, Bond, and Boys (1996). The scale measures the satisfaction of nursing care from the perspectives of the patients. The scale was used by Mike Walsh and Anna Walsh (1999) to assess patients' satisfaction with nursing care. Also, Alasad, Abu Tabar, and AbuRuz (2015) assessed patients' satisfaction with nursing care and reported a Cronbach's alpha of 0.92. The NSNS scale has 19 items on a 5-point Likert scale (where 1 = not at all satisfied, 2 = barely satisfied, 3 = quite satisfied, 4 = very satisfied, and 5 = completely satisfied).

The NSNS was used in the current study to assess the level of satisfaction with nursing care from the patients' perspective. Reliability analysis on the NSNS found a Cronbach's alpha of 0.86. Most items on the NSNS appeared worth of retention as deletion of any of them resulted in a decrease in the alpha.

### **3.6 Data Collection and procedure**

The researcher acquired ethical approval attached for the study from the Ghana Health Service Ethics Review Committee (GHS-ERC) and Institutional Review Board (IRB) of Noguchi Memorial Institute for Medical Research, University of Ghana, Legon. A written permission letter by the researcher with an attached copy of the approval letter from the GHS-ERC was sent to the Upper East Regional Health Directorate for permission to access participants at the Bongo District Hospital and the Upper East Regional Hospital. The permission was granted by the Regional Director of Health Service, Upper East Region and was then sent to the health facilities named above for the data collection. Permission was granted by the Medical Superintendent of Bongo District Hospital and the Medical Director of the Upper East Regional Hospital, Bolgatanga before the data was collected for the pre-test and the main study respectively.

The data was collected by the researcher and two research assistants who were recruited and trained to assist. The research assistants were trained for three days on the purpose of the research, how to administer the questionnaire, how to seek for the consent of the participants, how to maintain privacy and confidentiality of the participants and the content of the questionnaire. The research team with assistance from the ward nurses identified the participants who met the inclusion criteria for the study. The participants were approached individually by each research team member and were informed that their participation was voluntary and they could decline to participate without any negative consequence such as a denial of health care. They were also informed that they could withdraw at any point of the study if they wish to.

Additionally, the purpose of the study, the risk, and benefits were explained to the participants in the language they understood as contained in the participants' information sheet attached (Gurune, Kasem, Kussal, and Buli). The participants were also assured of the confidentiality of the information they give to the research team. The participants were allowed to ask questions and clarifications which were duly addressed by the research team. Consent of the participants was then obtained and they were requested to sign the consent form indicating that they understand every information about the study and are participating voluntarily. The questionnaire was then administered to the participants by the research team at the participants own convenient time. Full privacy was ensured during the data collection process to allow participants to answer the questionnaire. Participants who were not able to read and write the English language were assisted to fill out the questionnaire in the language they understand. The participants were given sufficient time to complete the questionnaires after which it was taken back by the research team.

### **3.7 Pre-testing of the questionnaire**

The pre-testing of the questionnaire was done to assess the feasibility of the proposed study in terms of timeline, availability of participants and ethical consideration (Baillot, Mampuya,

Comeau, Méziat-Burdin, & Langlois, 2013). Also, pre-testing was done to help the researcher to determine the validity and reliability of the questionnaire before the main study. A Cronbach's alpha coefficient was used to determine the reliability of the questionnaire, where a Cronbach's alpha of 0.70 and above was considered to be reliable (Connelly, 2008). Additionally, the pre-testing was conducted to help the researcher to identify items in the questionnaire that are ambiguous or will result in bias answers for possible modification prior to the main study. Furthermore, pre-testing was done to ensure that the items of the questionnaire were culturally friendly to the participants.

The questionnaire was pre-tested at Bongo District Hospital which has similar characteristics as the study setting. A sample size of 40 participants was randomly selected at the male and female wards of the Bongo District Hospital. Because most participants were illiterate, two professionals who are graduates in Gurune language were engaged to translate the questionnaire (attached) to Gurune a common language of the participants and back-translation prior to the pre-test.

The pre-test revealed that almost all the participants understood the questionnaire and its reliability in a larger study was assured. The Cronbach's alpha values for PPE questionnaire, CAHS, NPIS, and NSNS were 0.72, 0.79, 0.76 and 0.86 respectively

### **3.8 Data Management**

Data management is important especially in quantitative studies as it ensures that data collected are of quality and timely (Schleicher & Saito, 2005). In this study, the data was managed by planning in all the stages of the study starting from data collection measures, coding, entry, and verification. Each questionnaire was coded with a unique number to ensure tracking of the administered questionnaires. A codebook was created in the Statistical Package for Social Sciences (SPSS) software. Also, the two research assistants recruited to assist the researcher ensured that the data collection process was not rushed to affect its quality and that the data was collected on time. Once the data was collected, it was entered into the SPSS software using the variable name, variable

type, decimals among others. The data were then verified to ensure that it is consistent and conformed to the definition in the codebook. The items verified included; returned questionnaire, codes and missing data. To protect the data from a third party, it was kept safe and only be accessible to the researcher and supervisors. The data had been kept safely for a period of five years for an audit trail. After the said period the soft copy of the data will be deleted from the computer and hard copy of the data burnt to avoid been access by a third party.

### **3.9 Data Cleaning and Analytic Strategy**

Data cleaning is the process of detecting and removing or correcting inaccurate entries in a data set (Chauhan, Agarwal, & Kar, 2016). In this study, the data was cleaned using standard descriptive statistics using the SPSS software after the data was entered. The frequencies of the variables were run to check for error in data entry or missing data. There was no missing data in the 260 questionnaires collected because the data collection technique involves administering the questionnaire by the researcher and assistants in a one on one style. This ensures that all questions were filled out.

The data set was also checked for the presence of outliers. According to (Kline, 2011), an outlier is a number in a data set that is significantly different from the other numbers in that data set. They are observations with extreme values on one or more variables which distort statistics (Tabachnick, Fidell, & Ullman, 2007). There seems to be no conclusive definition of extreme value to classify an observation as an outlier; the rule of thumb, however, depicts that any value in a data set which is above three standard deviations from the mean is referred to as an outlier. Outliers can be dealt with by replacing them with values that are the same as the most extreme score that falls within three SD from the mean (kline, 2011). The other way of dealing with outliers is to transform the data of the variable with the outliers (Kline, 2011).

In this study, data cleaning was done as suggested by Kline (2011). The outliers were identified by calculating the z scores of the variables. The most extreme values but within the normal range was used to replace the 9 outliers identified from the variable, nurse-patient interaction and 6 outliers from patients' nursing care experience. Also, the scores of the variable, nurse-patient interaction which ranged between 1 and 4; and satisfaction with nursing care which ranged between 1 and 5 were transformed into natural logarithm to ensure that the data was normally distributed (Kline, 2011; Tabachnick et al., 2007). The transformation ensured that the scores ranged between 0.00 and 0.48 for nurse-patient interaction; and 0.00 and 0.70 for satisfaction with nursing care. The observations for skewness and kurtosis after the transformation of the data indicates the data were approximately normally distributed as presented in table 1.

**Table 1: Results of skewness and kurtosis of the study variables**

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
Variables	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SNC	.00	.70	.28	.16	.16	.15	-.56	.30
PPNCE	1	2	1.53	.20	-.21	.15	-.34	.30
PPI	1.75	4.75	3.47	.56	-.25	.15	-.25	.30
NPI	.00	.48	.155	.19	.70	.15	-.24	.30

*Note:* SNC= Satisfaction with nursing care; PPNCE= Patients' Previous Nursng Care Experience; PPI=Patients' Perception of Illness and NPI= Nurse-Patient Interaction.

After cleaning, the data was analysed according to the proposed hypotheses for the study using the SPSS Version 21.0 software. Descriptive and inferential statistics were used to analyse the data in this study. Descriptive statistics such as mean, standard deviation, frequency, and percentages were used to analyse the socio-demographic characteristics of the participants

Inferential statistical analysis used were independent t-test, Pearson's correlation analysis, standard multiple linear regression analysis, and sequential multiple regression analysis. The independent t-test was used to compare the means of the two populations (male and female participants). This test draws inference about whether there is a significant difference between the means of the male and female participants. Pearson's correlation analysis was used to analyse hypotheses 1, 2, and 3. This analysis was used to establish the relationship between the study variable (patients' previous nursing care experiences, patients' perception of illness, nurse-patient interaction and patients' satisfaction with nursing care) and the strength of their relationship.

Also, multiple linear regression analysis was used to analyse hypothesis 4. This analysis was used to determine the effect of patients' previous nursing care experiences, patients' perception of illness and nurse-patient interaction on the overall patients' satisfaction with nursing care. Furthermore, sequential multiple regression analysis was used to determine how the individual predictors (patients' previous nursing care experiences, patients' perception of illness, nurse-patient interaction) explain the variance of patients' satisfaction with nursing care.

### **3.10 Ethical Consideration**

The researcher acquired ethical approval from the Institutional Review Board (IRB) of Noguchi Memorial Institute for Medical Research, University of Ghana, Legon. Ethical approval was also obtained from the Ghana Health Service ethical review committee because the facilities where the data was collected is under Ghana Health Service. Permission was obtained from the management

of Regional Health Directorate, Bongo District Hospital, and the Regional Hospital before the data was collected.

The researcher obtained the consent of participants by explaining the objective and every information about the study in simple language that they could understand. The participants were then requested to sign the consent form attached indicating that they understand every information about the study and are participating voluntarily before the questionnaire was administered to them. The researcher also explained to the participants about their right not to participate in the study. Also, the participants were informed that after consenting to the study they will be allowed to opt-out of the study at any time if they wish to do so. The researcher explained to the participants that their refusal to participate in the study will not have any negative impact on their care.

Also, the confidentiality and anonymity of the participants were maintained by ensuring that detail personal information such as names, location, and relations of the participants was not included in the questionnaire. To protect the data from a third party, hard copies were stored in a secured place in the researcher's personal room and was only made accessible upon request by the supervisors. The soft copies of the data were stored on the researchers' personal computers and protected with a password. The data will be kept safely for a period of five years for an audit trail and in accordance with the Data Protection Act Ghana (Act 843, 2012). The participants were assured that the information gathered on the study will not be disclosed to the ward nurses or any other third party without their consent. Also, the participants were assured that their identity will not be disclosed during the presentation of the study findings in a conference or during the publication of the study. Furthermore, the participants were given the opportunity to suggest a place of convenience for them before the questionnaire will be administered to them. This was to ensure that the participants felt free to answer the questions without fearing or being intimidated by the nurses or any other person and also to ensure accurate information was collected.

Additionally, the researcher explained to the participants that no physical harm will be caused to them since a questionnaire was to be administered and the questions will not be invoking causing any emotional or psychological discomfort. A clinical psychologist working at the Regional Hospital was contacted to attend to participants if necessary. However, none of the participants needed counseling/None of such counseling cases were observed. The participants were made aware that they will not benefit directly from the study but indirectly from the nursing staff as the information gathered will help the nurses to care for them in a way that satisfied them. Also, the participants were informed that the duration of engagement with each participant is expected not to last more than 30-45 minutes.

## CHAPTER FOUR

### PRESENTATION OF RESULTS

#### 4.0 Introduction

This chapter focuses on the results of the study. Descriptive statistics of the socio-demographic characteristics of the participants and the study variables are presented. It also includes inferential statistics such as testing of hypotheses and statements of whether the hypotheses are supported or not. The chapter ends with a summary of the key findings of the study.

#### 4.1 Socio-demographic characteristics of the sample

The socio-demographic characteristics of the participants are presented in Table 2. The participant's ages were between 18-89 years, with the mean age of 41.17 ( $SD= 17.27$ ). Out of the total sample ( $n=260$ ), 43.50% were males and 56.50% were females. With regards to religion, the majority (71.15%) of the participants in the study were Christians while 21.15% were traditional worshipers and the remaining 7.70% were Muslims. The marital status of the participants were as follows: single ( $n= 69$ , 26.50%), married ( $n= 169$ , 65%), divorce/separated ( $n= 7$ , 2.70%) and widow/widower ( $n= 15$ , 5.80%). Also, the majority ( $n= 116$ , 44.60%) of the participants had no educational background while 27.70%, 16.50%, and 11.20% had education up to basic, secondary and tertiary levels respectively. Furthermore, a small proportion ( $n= 34$ , 13%) of the participants were employed in the formal sector while those employed in the informal sector were ( $n=113$ , 43.50%) and participants with no employment at all were ( $n= 113$ , 43.50%). With regards to the social support system for participants, almost all (97.30%) of the participants had support from their family while 2.70% had support from friends. Finally, the majority ( $n = 221$ , 85%) of the participants had health insurance cover while a minority ( $n = 39$ , 15%) were not covered by the health insurance scheme. The number of days the participants were on admission ranged from 3-15 days with a mean of 3.83 ( $SD =1.67$ ).

**Table 2: Socio-demographic information of the participants**

<b>Variables</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Gender</b>		
Male	113	43.50
Female	147	56.50
<b>Religion</b>		
Christian	185	71.15
Muslim	20	7.70
Traditionalist	55	21.15
<b>Marital status</b>		
Single	69	26.50
Married	169	65.00
Divorce/Separated	7	2.70
Widow/Widower	15	5.80
<b>Educational status</b>		
Basic	72	27.70
Secondary	43	16.50
Tertiary	29	11.20
Uneducated	116	44.60
<b>Employment status</b>		
Formal employment	34	13.00
Informal employment	113	43.50
Unemployment	113	43.50
<b>Social support system</b>		
Family	253	97.30
Friends	7	2.70
<b>Health insurance status</b>		
Insured	221	85.00
Non-insured	39	15.00

*Note:* SD = Standard deviation; Mean age = 41.17 (SD = 17.27); Mean days on admission = 3.83 (SD = 1.67)

Independent t-test was used to determine whether there was a significant difference between the means of males and females on the study variables. The results show that the two groups did not differ significantly on all the study variables (satisfaction with nursing care, patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction). For instance, on patients' satisfaction with nursing care, the mean for the male group ( $M = 4.30, SD = .79$ ) was not significantly different from the mean of female group ( $M = 4.37, SD = .79$ ), [ $t(258) = -.76, p > 0.05$ ]. The findings suggest that males and females in the study did not differ in their level of satisfaction with nursing care. The results are summarized in Table 3.

**Table 3: Independent sample t test for gender on the study variables**

Variables	Total (n = 260)		Male (n =113)		Female (n =147 )		t-value
	M	SD	M	SD	M	SD	
SNC	4.34	.79	4.30	.79	4.37	.79	-.76
PPNCE	2.05	.48	2.03	.49	2.06	.48	-.46
PPI	3.47	.56	3.45	.56	3.48	.56	-.36
NPI	3.56	.44	3.51	.47	3.60	.41	-1.57

*Note:* M= Mean, SD= standard deviation, SNC= Satisfaction with nursing care; PPNCE= Patients' Previous Nursing Care Experience; PPI=Patients' Perception of Illness and NPI= Nurse-Patient Interaction.

#### 4.2. Hypotheses testing

Preliminary hypothesis testing was done to ascertain whether or not some of the socio-demographic characteristics could affect the study variables. The variables (religion, marital status, educational status, employment status, and social support) which are categorical variables with more than two categories were dummy coded to meet the assumption for regression analysis. The participants' religious affiliation was categorically assessed in three levels, 1= Christian, 2= Islamic and 3=Traditional. Christian was the reference category compared with the two other categories. If

the participants' religious affiliation=1, then Islamic and Traditional was coded as a 0. If participants' religious affiliation=2, then Islamic was coded as a 1 and Traditional was coded as a 0. If participants' religious affiliation=3, then Islamic was coded as a 0 and Traditional was coded as a 1.

The participants' marital status was categorically assessed in four levels, 1= married, 2= single, 3= divorced/separated and 4= widow/widower. Married was the reference category compared with the three other categories. If participants' marital status=1, then single, divorced/separated, and widow/widower was coded as a 0. If participants' marital status=2, then single was coded as a 1 while divorced/separated and widow/widower was coded as a 0. If participants' marital status=3, then divorced/separated was coded as a 1 while single, and widow/widower was coded as a 0. If participants' marital status= 4 then single, and divorced/separated was coded as a 0 while widow/widower was coded as a 1.

The participants' educational status was categorically assessed in four levels, 1= no education, 2= basic education, 3= secondary education, and 4= tertiary education. No education was the reference category compared with the three other categories. If participants' educational status= 1, then basic education, secondary education, and tertiary education was coded as a 0. If participants' educational status= 2, then basic education was coded as a 1 while secondary education and tertiary education was coded as a 0. If participants' educational status= 3, then secondary education was coded as a 1 while basic education and tertiary education was coded as a 0. If participants' educational status= 4, then basic education, secondary education was coded as a 0 while tertiary education was coded as a 1.

The participants' employment status was categorically assessed in three levels, 1= no employment, 2= formal employment, and 3= informal employment. No employment was the reference category compared with the two other categories. If participants' educational status=1, then formal and informal employment was coded as a 0. If participants' educational status=2, then formal

employment was coded as a 1 while informal employment was coded as a 0. If participants' educational status=3, then formal was coded as a 0 while informal employment was coded as a 1. Lastly, the participant's social support status was categorically assessed in three levels, 1= no social support, 2= support from family and 3= support from friends. If participants' social support status= 1, then support from family and friends was coded as a 0. If participants' social support status= 2, then support from family was coded as a 1 while support from friends was coded as a 0. If participants' social support status= 3, then support from family was coded as a 0 while support from friends was coded as a 1.

Table 4 presents the results of multiple regression of patients' socio-demographic characteristics on their satisfaction with nursing care. The results show that the model containing the socio-demographic characteristics did not significantly differ from the only constant model, [ $F(8, 260) = .67$ ;  $R^2 = .02$ ,  $p > .05$ ], suggesting that none of the variables correlated significantly with the outcome variables. For example, gender did not significantly correlate with patients' satisfaction with nursing care, [ $\beta = .07$ ,  $t(257) = 1.13$ ,  $p > .05$ ].

**Table 4: Multiple Regression of Patients' Satisfaction with Nursing Care from Patients' Socio-demographic Characteristics**

<b>Predictors</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b><i>t</i></b>	<b><i>P</i></b>
(Constant)	.26	.08		3.16	.00
<b>Age</b>	.00	.00	.02	.26	.80
<b>Gender</b>	.02	.02	.07	1.13	.26
<b>Religious affiliation</b>					
Christian*					
Islamic	.02	.04	.04	.59	.56
Traditionalist	.04	.02	.10	1.65	.10
<b>Marital status</b>					
Married*					
Single	.00	.02	.00	.05	.96
Divorce/Separated	-.20	.06	-.20	-3.78	.00
Widow/Widower	.02	.04	.03	.51	.61
<b>Educational status</b>					
No education*					
Basic	-.02	.05	-.06	-.46	.65
Secondary	-.02	.04	-.07	-.51	.61
Tertiary	-.22	.07	-.22	-3.06	.00
<b>Employment status</b>					
No employment*					
Formal employment	-.02	.02	-.07	-1.04	.30
Informal employment	.00	.03	.01	.16	.87
<b>Social support</b>					
No support*					
Family	-.06	.11	-.06	-.51	.61
Friends	.02	.13	.02	.13	.90
<b>Health insurance status</b>					
	-.010	.029	-.023	-.358	.721
<b>R<sup>2</sup></b>			.02		
<b>F</b>			.67		

Note: \*Variable compared

### **Hypothesis 1**

This hypothesis states that there will be a significant positive relationship between patients' previous nursing care experience and patients' satisfaction with nursing care.

From table 5, the results of the bivariate analysis show that patients' previous nursing care experience was significantly and negatively related to patients' satisfaction with nursing care, [ $r = -.40, p < 0.01$ ]. Thus, the hypothesis that "*there will be a significant positive relationship between patients' previous nursing care experience and patients' satisfaction with nursing care*" was not supported. In other words, patients who have problems with their previous nursing care experience will be less satisfied with nursing care and those who have no problem with their previous nursing care experience will be more satisfied with nursing care.

### **Hypothesis 2**

This hypothesis states that there will be a significant positive relationship between patients' perception of illness and patients' satisfaction with nursing care.

From table 5, the results show that patients' perception of illness was not significantly related to patients' satisfaction with nursing care, [ $r = 0.08, p > 0.05$ ]. Thus, the hypothesis that "*there will be a significant positive relationship between patients' perception of illness and patients' satisfaction with nursing care*" was not supported. In other words, some patients with negative perception of illness will be satisfied with nursing care and some patients with positive perception of illness will be dissatisfied with nursing care.

### **Hypothesis 3**

This hypothesis states that there will be a significant and positive relationship between nurse-patient interaction and patients' satisfaction with nursing care.

From table 5 below, the results show that there was a significant positive relationship between nurse-patient interaction and patients' satisfaction with nursing care, [ $r = 0.73, p < 0.01$ ]. Hence, the hypothesis that “there will be a significant positive relationship between nurse-patient interaction and patients' satisfaction with nursing care” was supported. In other words, the good nurse-patient relationship will lead to more satisfaction with nursing care and poor nurse-patient relationship will lead to less satisfaction with nursing care.

**Table 5: Bivariate Correlation and Descriptive Statistics of SNC, PPNCE, PPI, and NPI.**

Variables	1	2	3	4
1 SNC	....			
2 PPNCE	-.40*	....		
3 PPI	.08	.02	.....	
4 NPI	.73*	-.37*	.02	
M	.28	1.53	3.47	.16
SD	.16	.20	.56	.12

*Note:* N=260. \* $p < 0.01$ . SNC= Satisfaction with nursing care; PPNCE= Patients' Previous Nursing Care Experience; PPI=Patients' Perception of Illness and NPI= Nurse-Patient Interaction.

**Hypothesis 4**

This hypothesis states that patients' previous healthcare experience, patients' perception of illness and nurse-patient interaction will significantly explain at least 50% of the variance in patients' satisfaction with nursing care.

From table 6, the results show that patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction significantly explained 56% of satisfaction with nursing care, [ $F(3, 260) = 107.37, R^2 = .56, p < .01$ ]. Hence, the hypothesis "*Patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction will significantly explain at least 50% of the variance in patients' satisfaction with nursing care*" was supported.

**Table 6: Multiple Regression of SNC on PPNCE, PPI, and NPI.**

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>T</b>	<b>p</b>
Constant	.26	.07		3.62	.00
PPNCE	-.12	.04	-.15	-3.28	.00*
PPI	.02	.01	.07	1.61	.11
NPI	.91	.06	.68	15.09	.00*
R <sup>2</sup>		.56			
F		107.37			

*Note: \*p < .01* SNC= Satisfaction with nursing care; PPNCE= Patients' Previous Nursing Care Experience; PPI=Patients' Perception of Illness and NPI= Nurse-Patient Interaction.

Sequential multiple regression was performed to examine how well scores on patients' satisfaction with nursing care are predicted by patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction. The data were entered in two blocks for all regression models. The first block was potentially confounding sociodemographic variables and the second block was the independent variable being measured (Stafford, Berk, & Jackson, 2009). The independent variable with the highest bivariate correlation with the dependent variable was entered

first, followed by the independent variable with the highest increase in  $R^2$  after accounting for the first independent variable and then the last independent variable (Hinkle, Wiersma and Jurs, 2003).

The results of the sequential regression analysis are summarized in Table 7. In regression model 1, nurse-patient interaction significantly predict patients' satisfaction with nursing care, accounting for 54% of the variance,  $R^2 = .54$ ,  $F(9,250) = 32.95$ ,  $p < .001$ . In regression model 2, patients' previous nursing care experience significantly predicted patients' satisfaction with nursing care, accounting for 10% variance of the outcome variable,  $R^2 = .12$ ,  $F(9,250) = 3.74$ ,  $p < .001$ . The results from regression models 1 and 2 suggest that nurse-patient interaction and patients' previous nursing care experience respectively predicted patients' satisfaction with nursing care. However in regression model 3, patients' perception of illness did not significantly predict patients' satisfaction with nursing care,  $R^2 = .03$ ,  $F(8,251) = .74$ ,  $p > .05$ . In regression model 4, when nurse-patient interaction was controlled, patients' previous nursing care experience significantly predicted patients' satisfaction with nursing care, accounting for 55% variance of the outcome variable,  $R^2 = .55$ ,  $F(2,257) = 152.40$ ,  $p < .001$ .

**Table 7: Sequential Regression of SNC on NPI, PPI, and PPNCE**

Predictor	R <sup>2</sup>	ΔR <sup>2</sup>	β
Regression 1			
Step 1			
Control variable	.02		
Step 2			
NPI	.54***	.52***	.73***
Regression 2++			
Step 2			
PPNCE	.12***	.10***	-.32***
Regression 3++			
Step 2			
PPI	.03	.01	.07
Regression 4			
Step 1			
NPI	.54***		.73***
Step 2			
PPNCE	.55*	.01*	-.09*

*Note:* N= 260; ++ = step 1 of regression is same as step 1 of Regression Analysis 1; Control variables included age, gender, religion, marital status, educational status, employment status, social support and health insurance status; SNC= Satisfaction with nursing care; PPNCE= Patients 'Previous Nursing Care Experience; PPI=Patients' Perception of Illness and NPI= Nurse-Patient Interaction.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

#### **4.6 Summary of findings**

This study tested 4 hypotheses that assessed factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga. The summary of the findings are as follows:

1. Patients' previous nursing care experience was significant but negatively related to patients' satisfaction with nursing care.
2. Patients' perception of illness was found not to be significantly related to patients' satisfaction with nursing care.
3. There was a significant positive relationship between nurse-patient interaction and patients' satisfaction with nursing care.
4. Patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction significantly explained 56% of patients' satisfaction with nursing care.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.0 Introduction**

This study examined the factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga. Thus, the relationship between patients' previous nursing care experience, patients' perception of health care, nurse-patient interaction and patients' satisfaction with nursing care were examined. This chapter focuses on discussions of the findings based on the research hypotheses with reference to previous literature and contextual explanation for different outcomes. It also includes how the Interactional Model of Client Health Behaviour applied in this study was useful. The specific objectives of the study are to:

1. Determine the relationship between patients' previous nursing care experiences and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga.
2. Elucidate the relationship between patients' perception of illness and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga.
3. Investigate the relationship between nurse-patient interaction and patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga.

#### **5.1 Patients' previous nursing care experience and satisfaction with nursing care**

The current study found that patients' previous nursing care experience was significantly and negatively related to patients' satisfaction with nursing care. The negative relationship established in this current study could imply that participants in the current study had negative previous nursing experiences but nonetheless were more satisfied with nursing care. The finding from this study contradicts previous studies (Charalambous, 2013b; Findik, Unsar, & Sut, 2010b; Milutinovic, Simin, Brkic, & Brkic, 2012b) which found that patients' previous experience of healthcare significantly and positively related to patients' satisfaction with nursing care. For instance, a quantitative study conducted among patients with different types of cancers in Cyprus with the aim of assessing their

satisfaction revealed that the patients with positive previous hospitalization experiences were more satisfied with nursing care compared to those newly hospitalised (Charalambous, 2013b). The author also indicated that experiences of positive previous hospitalization result in a positive evaluation of the current hospitalization which contributes to higher levels of satisfaction. A related cross-sectional study in Serbia to assess the association between satisfaction with nursing care and patients' characteristics found that previous hospitalization predicted patients' satisfaction with nursing care (Milutinovic et al., 2012b). These researchers further indicated that patients with positive previous hospitalization reported higher levels of satisfaction. However, these two studies were conducted among patients with similar conditions that are cancer patients and patients who underwent surgery respectively as compared to the current study that involved patients with different conditions (both medical and surgical). These studies also compared patients with the previous hospitalization with those with no previous hospitalization but the current study examined the levels of satisfaction of only patients with the previous hospitalization. In addition, the disparities of findings from the previous studies with the current study could be due to the socio-cultural difference of the respondents as the previous studies were conducted in European counties.

The current finding further contradicts that of Nilsen et al. (2013) who reported in their study that patients with positive previous healthcare experience turn to formed good relationship with clinicians due to familiarity hence are more likely to be satisfied. Also, there is evidence in the literature that regular visits to health care settings are necessary for continuity of care, early identification of illness and effective evaluation of health care resulting in increased satisfaction (Noyes Jr et al., 2011) However, the current study finding did not support the reasons espoused by these researchers. The inconsistencies in the current study with previous studies are supported by other researchers that reported that there is diversity in the association between satisfaction and patient-related characteristics (Batbaatar, Dorjdagva, Luvsannyam, Savino, & Amenta, 2017b;

Raleigh, Frosini, Sizmur, & Graham, 2012). Thus, one of the possible explanations for the current study finding could be that the participants may have had negative experiences with nursing care from their previous visits to other health facilities but not at the Upper East Regional Hospital. This is because evidence from the literature suggests that health-seeking behaviours of patients had a significant relationship with level satisfaction with health services (Atif Mahmood, Dr. Mukkaram Ali, Asima Faisal, & Bheesham Kumar, 2014). This implies that patients are likely to move from one health facility to another if they are not satisfied with health services provided. Therefore it is worth assuming that the participants in the current study may have experienced poor nursing care from other health facilities before visiting the Upper East Regional Hospital with the hope of getting better healthcare, hence their satisfaction with nursing care relative to their previous nursing care experience.

Another possible explanation for the finding is that the current study was conducted in a referral hospital, the Upper East Regional Hospital which has different dynamics compared to other facilities in the region. In Ghana, most of the referral hospitals including all the Regional Hospitals seem to have a higher number of qualified nurses and equipped with resources such as medical equipment, laboratories, and pharmacies compared with the District Hospitals. The Upper East Regional Hospital is not an exception. It is, therefore, possible that the health services in general in the Regional Hospitals would be better than the District Hospitals. This peculiar nature of the Upper East Regional Hospital could be the reason for the negative relationship between the participants' previous healthcare experiences and satisfied with nursing care in the current study.

## **5.2 Patients' perception of illness and satisfaction with nursing care**

The current study revealed that patients' perception of illness did not significantly relate to patients' satisfaction with nursing care. This outcome is consistent with a correlational study in the USA among cancer patients to identify the role of cognitive appraisal in predicting patients psychosocial adjustment after radiation treatment which revealed that cognitive appraisal did not

predict the patients' psychosocial adjustment during the treatment process (Mazanec et al., 2011). Also, Homma, Ishikawa, & Kiuchi (2018), conducted a study to assess the influence of illness perception on satisfaction of patients with fibromyalgia and found that the effect of symptoms of fibromyalgia and patients' emotional concerns did not correlate with patients' dissatisfaction. The reason for the current study findings could be attributed to the assertion by Thomas, Newcomb, & Fusco, (2019), that patients and nurses usually disagree on the quality of care given, but interaction with nurses over time will have a positive effect on their perception of nursing care.

However, the finding from the current study contradicts the findings from other previous studies (Coyne & Tennen, 2010a; Haddad et al., 2018a; McCorry et al., 2013; Nadeem et al., 2016; Walker, Lynch, Strom Williams, Voronca, & Egede, 2015b) which reports that patients' perception of illness is related to patients' satisfaction with nursing care. For example, a cross-sectional study by Haddad et al. (2018a) to examine the relationship between illness perception and treatment satisfaction among Lebanese patients with dyslipidemia found that patients with positive illness perception were more satisfied with their treatment than their counterparts with negative illness perception. The differences in this study with the current study could be attributed to different participants in the two studies. The current study was conducted among inpatients in the ward setting while the study by Haddad and Colleagues was conducted among people visiting community pharmacies. Similarly, a study among type two diabetes patients in the USA reported that positive illness perception resulted in higher levels of quality of life due to reported lower blood glucose levels (Walker et al., 2015b). The similarities in these studies that established a linkage of higher treatment satisfaction and high quality of life with positive illness perception are contrary to findings from the current study. It has also been reported by Broadbent et al. (2011) that patients' with positive illness perception have been associated with more adherence to medication treatment. Patients who adhere to treatment get relieved of their

symptoms hence are more likely to be satisfied with healthcare services (Barbosa, Balp, Kulich, Germain, & Rofail, 2012).

The discrepancy in results in the current study with these previous studies named above could be probably due to the fact that the current study focused broadly on participants with different medical and surgical conditions including acute and chronic conditions. The understanding and perception of diagnoses and treatments in the current study would vary among the participants since their symptoms, type of treatment and duration of illness were not considered the same (Nowicka-Sauer et al., 2016). For example, patients who underwent a surgical operation would not be expected to have the same perception of their illnesses compared to other patients admitted to medical conditions. Also, compared with the current study, the previous studies that reported a positive relationship between patients' perception of illness and their satisfaction with nursing care were conducted among patients with the same diagnosis; diabetes (Broadbent et al., 2011; Walker et al., 2015b), cancer (Mabena & Moodley, 2012) and congenital heart disease (Schoormans et al., 2016). Since the participants in the current study were diagnosed of different conditions, it is plausible that they would have different experiences hence would be more likely to have different perceptions about their conditions and this may impact on their level of satisfaction with nursing care.

### **5.3 Nurse-patient interaction and patients' satisfaction with nursing care**

In this present study, there was a significant and positive relationship between nurse-patient interaction and patients' satisfaction with nursing care. This suggests that good nurse-patient interaction is more likely to result in patients' satisfaction with nursing care. This finding is consistent with previous studies (Dahlem, Villarruel, & Ronis, 2015a; Haugan, Moksnes, & Espnes, 2013b; Anastasios Merkouris et al., 2013; Mitropoulos et al., 2018; Tejero, 2012b) which found that nurse-patient interaction was significantly related to satisfaction with nursing care. For example, Dahlem et al. (2015b) conducted a cross-sectional study among African American pregnant women in the USA

to examine their views on patient-provider interaction and its influence on satisfaction with prenatal care during their first prenatal visit. The authors found that the women experienced satisfactory prenatal care with a quality relationship with the providers. It is interesting to note that the women in this study met their provider for the first time and were provided with quality provider-patient interaction during history taking and physical examination. Comparatively, the participants in the current study were with the nurses for at least three days and would have gotten more time to assess the nurses on the care provided hence the high levels of satisfaction with nursing care.

Similarly, a larger study by Mitropoulos et al. (2018) involving inpatients in 42 hospitals in Greece to identify the determinant (service quality, patient characteristics and institutional characteristics) of inpatients satisfaction reported that service quality dimension of nurses' communication was the overall predictor of patient satisfaction. Additionally, a study to identify the aspect of hospital services that influence patients' satisfaction reported that nurses kindness and courtesy is necessary for higher patients' satisfaction (Carretta, Bond, Cappiello, & Fantini, 2017a). It is thus possible that the nurses in the facility in which this current study was located shown respect and utmost courtesy to their patients resulting in this current finding.

In a much broader context, nurse-patient interaction in the form of provision of emotional support to patients help patients to reduce or cope with physical illnesses especially among older patients (Pejner, Ziegert, & Kihlgren, 2012) and have a quality of life (Sajjad, Ali, Gul, Mateen, & Rozi, 2016). Also, satisfactory nursing care can be provided through information sharing, empowerment of patients to have clinical decision control and competence of the nurse (Shabason et al., 2014; Veilleux et al., 2018). In the Ghanaian context of nursing care, it is a routine clinical practice for nurses to provide patients especially those who are to undergo surgical operation with emotional support and adequate information on their condition and the procedures involved to gain their consent before treatment start. Also, the provision of patients with adequate information on their condition and care puts them in a better position to make a clinical decision by themselves (Griffith, 2018). It

is, therefore, possible that participants in the current study received adequate information on their condition and care and were more appreciative of the care given to them hence the positive impact of nurse-patient interaction on nursing care satisfaction.

#### **5.4 Dynamic factors and patients' satisfaction with nursing care**

The factors influencing patients' satisfaction is multidimensional and is examined in the context of patient-related characteristics, healthcare services-related characteristics, cultural and sociodemographic characteristics (Batbaatar et al., 2017b; Graham, 2016). Other studies have examined patients' satisfaction in the aspect of waiting time, hospital environment and equipment (Chan et al., 2018; Liew & Gardner, 2014). In the current study, factors such as patients' previous healthcare experience, patients' illness perception, and nurse-patient interaction were examined as predictors of patient satisfaction with nursing care. A sequential multiple regression analysis with the three variables found a statistically significant patients' satisfaction with nursing care model that explained 56% of the variance. The explanatory power of the three predictors on patients' satisfaction with nursing care in the current study was comparable to other studies (Bjertnaes, Sjetne, & Iversen, 2012b; Chumbler et al., 2016). For example, Bjertnaes et al. (2012b) examined the contribution of predictors of patients' satisfaction in 63 hospitals in Norway and reported that the predictors explained 59% of the variance of patients' satisfaction. The difference in the explained variance of patients' satisfaction in the study by Bjertnaes and Colleagues compared to the current study could be attributed to the exclusion of socio-demographic variables in the current study. Similarly, Chumbler et al. (2016) in their study to assess the experiences of older inpatients on the health care dimensions as predictors of overall satisfaction reported that health care dimensions contributed to 47% of the variance of the overall satisfaction.

Overall, the interaction between nurses and patients in the current study was the most predictor of patient satisfaction with nursing care. Consistently, several researchers have reported nurse-patient

interaction as a key predictor of patient satisfaction with nursing care. These studies have examined a series of predictors of patient satisfaction with nursing care (Atinga et al., 2011a; Batbaatar et al., 2017b; Fenny et al., 2014; Schoenfelder et al., 2011). For instance, Atinga et al. (2011a) assessed the influence of provider-patient interaction, waiting time and hospital environment on patient satisfaction in Northern Ghana. The authors revealed that provider-patient interaction predicted patient satisfaction the most which corroborate with the current study.

Relatedly, Fenny et al. (2014) conducted a study to examine the association between overall satisfaction and quality care dimensions in Ghana and found nurses interpersonal relationship with patients as one of the key predictors of patient satisfaction. Even though the dimensions of health care services examined in these two studies were different from the current study, the finding that the nurse-patient relationship is key in determining patient satisfaction is consistent among these studies. One possible explanation for the consistent dominance of nurse-patient interaction as a predictor of satisfaction is that inpatients during hospitalization interact most with nurses than other hospital staff (Ferri, Muzzalupo, & Di Lorenzo, 2015b). It, therefore, suggests that in health care service delivery, nurse-patient relationship, cannot be underestimated since it contributes greatly to patient satisfaction and quality of health service at large.

### **5.5 Effectiveness of the Interaction Model of Client Health Behaviour (IMCHB)**

The Interaction Model of Client Health Behaviour which was used to guide the study has been used by other researchers to study satisfaction with health care. The constructs of the model were used to formulate the study objectives and guided the literature review. The objectives were formulated such that they were in line with the constructs in the chosen model. Also the literature was reviewed based on the constructs in the chosen model. It was also used to organise the findings of the study after the data analysis. A review of previous studies that applied the model has been presented in chapter two. The model explains the relationships between patients' characteristics, nurse-patient

interaction and health outcome. The current study found that both patients' characteristic and nurse-patient' interaction influence health outcome (patients satisfaction with nursing care). The model effectively addressed the issue of nurse-patient interaction and patients' previous nursing care experiences influencing patients' satisfaction with nursing care in this current study. Thus, nurse-patient interaction and patients' previous nursing care experiences significantly relate to patients' satisfaction with nursing care. However, the model could not address the issue of some patients' characteristics such as sociodemographic characteristics and patients' perception of illness influences on patients' satisfaction with nursing care. These variables were found not to be significantly related to patients' satisfaction with nursing care. Nonetheless, the Interaction Model of Client Health Behaviour was effective in addressing the objective of the current study.

## **CHAPTER SIX**

### **SUMMARY, IMPLICATIONS FOR NURSING, LIMITATIONS, CONCLUSION, AND RECOMMENDATIONS**

This chapter focuses on a summary of the study, implications for nursing, limitations, conclusion, and recommendations.

#### **6.1 Summary of the Study**

The study examined the factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga. The study was guided by a theoretical model called the interaction model of client health behaviour developed by Cox (1982). The study used a quantitative approach with a cross-sectional design. A structured questionnaire measuring selected constructs in the model was used to collect data. Data were analysed using SPSS software. Analytic techniques such as Independent t-test, Pearson Correlation, Standard Multiple Regression, and Sequential Multiple Regression were used to examine relationships of the study variables. The study found that patients' previous nursing care experience was significant and negatively related to patients' satisfaction with nursing care. The study also found that patients' perception of illness was significantly related to patients' satisfaction with nursing care.

Furthermore, the current study revealed that there was a significant and positive relationship between nurse-patient interaction and patients' satisfaction with nursing care. Lastly, patients' previous nursing care experience, patients' perception of illness and nurse-patient interaction significantly explained 56% of patients' satisfaction with nursing care. With regards to the last finding nurse-patient interaction was the most predictor of patients' satisfaction with nursing care.

### **5.2.0 Implication of the Study for Nursing**

The findings of the study have implications for nursing practice, policy formulation, and management as well as nursing research.

#### **6.2.1. Implication for Nursing Practice and Management**

The findings of the study will be of considerable interest for nurses and nurse managers in Ghana. The results suggest the need for nurses to frequently assess and improve patients' satisfaction with nursing care in order to demonstrate the role played by nurses in patients' satisfaction with healthcare services in general. The study finding of nurse-patient interaction as the most important determinant of patients' satisfaction with nursing care suggests the need for nurse managers to organise continuous professional education programme on nurse-patient interaction for nurses in Ghana. This will help to improve nurses interpersonal and communication skills.

#### **6.2.2 Implication for Policy Formulation**

The findings of the study will be of interest to the Ministry of Health in policy development on condition-based wards instead of gender-based wards so as to improve patients' satisfaction with nursing care and health service in general. This will enable nurses to develop specialised skills in the care of certain conditions.

#### **6.2.3 Implication for Nursing Research**

The study examined the factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga guided by the interaction model of client health behaviour (IMCHB). This study is the first to have assessed patient satisfaction using the IMCHB model in Ghana hence future studies should consider replicating the model in other study settings in Ghana to establish whether it is culturally suitable. Also, there is the need to conduct a comparative study between a referral hospital and a district hospital to establish the impact of human and material resources on patients' satisfaction with nursing care. In addition, future studies on patients'

satisfaction with nursing care should include nurses so as to validate patients reported experiences of nursing care.

### **6.3 Limitations of the Study**

This study has made a contribution to the patient satisfaction literature by establishing the relationships between patients' previous nursing care experience, patients' perception of illness, nurse-patient interaction and patients' satisfaction with nursing care. However, the study is not without some limitations. Firstly, the data was collected from the patients in the wards without the involvement of the nurses. This ensured that the patients described their experiences without fear of being victimised by the nurses, but this could limit the validity of the data since what is expressed by patients might not be the true reflection of issues in the ward.

Secondly, the study examined the relationships of three factors and satisfaction with nursing care; however other factors such as physical environment, patient health status, and patients' expectations were not evaluated. This might be a limitation in understanding the effect of the other factors on satisfaction with nursing care. However, the study was guided by a theoretical model of IMCHB. Thirdly, some of the participants expressed interest to complete and return the questionnaire at a later date. However, this was declined by the researcher because their opinion could be compromised by their relatives and friends or retrieving the questionnaire was going to be difficult should they be discharged. This made some of the participants to decline participation. Notwithstanding, most of the participants voluntarily participated without hesitation. Lastly, most of the participants in the study did not participate because their condition was assessed to be seriously ill or did not meet the study criteria for a minimum of three days on admission. This reduced the required number of participants per day which extended the proposed schedule for the data collection.

## **6.4 Conclusion**

This study examined the factors influencing patients' satisfaction with nursing care at the Upper East Regional Hospital, Bolgatanga. The study found that two (patients' previous nursing care experience, and nurse-patient interaction) of the three factors examined were related to patients' satisfaction with nursing care. Only patients' perception of illness did not relate to patients' satisfaction with nursing care. The study further revealed that the three factors examined significantly explained 56% of patients' satisfaction with nursing care and nurse-patient interaction was the most predictor of patients' satisfaction with nursing care. The findings indicate the need for nurses and health authorities to place much importance in improving the relationship between nurses and patients in health care facilities

## **6.5 Recommendations**

Based on the study findings recommendations are made for the Ministry of Health, Ghana Health Services, Nursing, and Midwifery Council of Ghana and Staff and Management of the Upper East Regional Hospital.

### **6.5.1 Ministry of Health**

The Ministry of Health should:

- Train and supervise professional nurses to acquire interpersonal skills.
- Develop a policy on condition-based wards instead of gender-based wards to meet the specific health needs of the patients so as to improve on patients' satisfaction.
- Train the nurses with different specialties to be posted to the condition-based wards to provide health services that meet the needs of patients in all District hospitals in Ghana.

### **6.5.2 Ghana Health Services**

Ghana Health Services should:

- Post trained nurses with different specialties to the condition-based wards to provide health services that meet the health needs of patients in all District hospitals in Ghana.

### **6.5.4 Nursing and Midwifery Council**

The Nursing and Midwifery Council should enforce the code of ethics by given sanctions to nurses who behave rudely to patients for it to serve as a deterrent to other nurses.

### **6.5.5 Staff and Management of the Upper East Regional Hospital**

- Nurses at the Upper East Regional Hospital should be encourage to conduct a frequent assessment of patients' satisfaction with nursing care in order to improve health at the facility.
- The management of the Upper East Regional Hospital should periodically organise continuous professional training, especially on nurse-patient interaction in order to improve on nurses' interactions and communication skills.

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**APPENDIXA: ETHICAL APPROVAL FROM IRB**

**NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH**  
*Established 1979A Constituent of the College of Health Sciences*

University of Ghana

Phone: +233-302-916438 (Direct)  
+233-289-522574  
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E-mail: [nirb@noguchi.ug.edu.gh](mailto:nirb@noguchi.ug.edu.gh)  
Telex No: 2556 UGL GH

**INSTITUTIONAL REVIEW BOARD**



Post Office Box LG 581  
Legon, Accra  
Ghana

My Ref. No: DF.22  
Your Ref. No:

7<sup>th</sup> November, 2018

**ETHICAL CLEARANCE**

**FEDERALWIDE ASSURANCE FWA 00001824**

**IRB 00001276**

**NMIMR-IRB CPN 007/18-19**

**IORG 0000908**

On 7<sup>th</sup> November 2018, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

**TITLE OF PROTOCOL** : **Factors Influencing Patients' Satisfaction with Nursing Care at the Upper East Regional hospital, Bolgatanga**

**PRINCIPAL INVESTIGATOR** : **Akayuure Collins Adombire, MPhil Cand.**

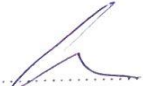
Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 6<sup>th</sup> November, 2019. You are to submit annual reports for continuing review.

Signature of Chair: .....

  
Mrs. Chris Dadzie  
(NMIMR – IRB, Chair)

**APPENDIX B: ETHICAL APPROVAL FROM GHS-ERC**

**GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE**

*In case of reply the number and date of this Letter should be quoted.*



Research & Development Division  
Ghana Health Service  
P. O. Box MB 190  
Accra  
Tel: +233-302-681109  
Fax + 233-302-685424  
Email: [ghserc@gmail.com](mailto:ghserc@gmail.com)  
31<sup>st</sup> October, 2018

My Ref. GHS/RDD/ERC/Admin/App 18/438  
Your Ref. No.

Collins Adombire Akayure  
School of Nursing and Midwifery  
University of Ghana  
Legon-Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	<b>GHS-ERC021/10/18</b>
Project Title	Factors Influencing Patient's Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga.
Approval Date	31 <sup>st</sup> October, 2018
Expiry Date	1 <sup>st</sup> November, 2019
GHS-ERC Decision	<b>Approved</b>

**This approval requires the following from the Principal Investigator**

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report **after completion** of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....  
PROFESSOR. MOSES AIKINS  
(GHS-ERC VICE- CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

## APPENDIX C: QUESTIONNAIRE



UNIVERSITY OF GHANA  
SCHOOL OF NURSING AND MIDWIFERY  
QUESTIONNAIRE

RESEARCH TITLE: FACTORS INFLUENCING PATIENT'S SATISFACTION WITH NURSING CARE AT THE UPPER EAST REGIONAL HOSPITAL, BOLGATANGA

DATE \_\_\_\_\_ FORM NO. \_\_\_\_\_

NAME OF WARD \_\_\_\_\_

Dear Respondent,

This questionnaire is in respect to a research that is being conducted on the topic "Factors Influencing Patient's Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga". The study is solely for academic purpose and your response is highly anticipated. The confidentiality of your response will be assured and information will not be disclosed to any third party. You have the right not to participate in the study or withdraw at any stage. Your decline to participate will have no implication in your treatment at the hospital. You will not benefit directly in the study but indirectly from the nursing staff as the information given will help the nurses to care for you. The duration for participation will not be more than 45 minutes.



**PART ONE: SOCIO-DEMOGRAPHIC DATA**

INSTRUCTION: Please fill in the space provided and indicate by ticking (✓) in the box where applicable the appropriate answer for questions 1-6 below.

1. How old are you? \_\_\_\_\_
2. What is your gender? \_\_\_\_\_
3. What is your religious affiliation? Christian  Islamic   
Traditionalist  Others specify \_\_\_\_\_
4. What is your marital status? Single  Married  Divorce/Separated   
Others (specify) \_\_\_\_\_
5. What is your level of education? Basic  Secondary  Tertiary
6. What is your employment status? Employed  Not employed   
Others (specify) \_\_\_\_\_
7. Social support system: Family  Friends   
Others specify \_\_\_\_\_
8. Health Insurance Status: Insured  Non-Insured
9. Number of Days on Admission \_\_\_\_\_



**PART TWO: COGNITIVE APPRAISAL HEALTH SCALE (CAHS)**

*INSTRUCTION: The following statements are about your perception with your current health state in the ward. From statement, 10-22 indicate by ticking (✓) on a 5-point Liked scale the extent to which you agree or disagree for each of the statement below (where 1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree)*

COGNITIVE APPRAISAL	1	2	3	4	5
<b>Threat appraisal</b>					
10. This health problem is frightening to me					
11. This health problem is not stressful for me					
12. I have a lot to lose because of this health problem					
13. I worry about what will happen to me					
14. I do not think much about this health problem					
<b>Challenge appraisal</b>					
15. I can beat this health problem despite the difficulties					
16. There is a lot I can do to overcome this health problem					
17. I can control what will happen to me					
<b>Harm/Loss Appraisal</b>					
18. I have been harmed in some way by this health problem					
19. This health problem has damaged my life					
20. I have a sense of loss over the things I can no longer do					
21. I have not been able to do what I want to do because of this health problem					
22. Relationships with my family and friends have suffered					



**PART THREE: PICKER PATIENTS' EXPERIENCE QUESTIONNAIRE, PPE-15**

*INSTRUCTION: Part three is about your previous experience of healthcare aside your present admission in the ward. From questions 23-36 please indicate by ticking (✓) in the box the appropriate answer for each question.*

23. When you had important questions to ask a nurse, did you get answers that you could understand?  
Yes, always  Yes, sometimes  No  I had no need to ask
24. Sometimes in a hospital, one nurse will say one thing and another will say something quite different. Did this happen to you?  
Yes, often  Yes, sometimes  No
25. If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you? Yes, completely  Yes, to some extent  No  I didn't have any anxieties or fears
26. Did nurses talk in front of you as if you weren't there?  
Yes, often  Yes sometimes  No
27. Did you want to be more involved in decisions made about your care and treatment? Yes, definitely  Yes, to some extent  No
28. Overall, did you feel you were treated with respect and dignity while you were in the hospital? Yes, always  Yes, sometimes  No
29. If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you? Yes, completely  Yes, to some extent  No  I didn't have any anxieties or fears
30. Did you find someone on the hospital staff to talk to about your concerns?  
Yes, definitely  Yes, to some extent  No  I had no concerns
31. Were you ever in pain? Yes  No   
If yes, do you think the hospital staff did everything they could to help control your pain?  
Yes, definitely  Yes, to some extent  No
32. If your family or someone else close to you wanted to talk to the hospital staff did they have enough opportunity to do so? Yes, definitely  Yes, to some extent   
No  No family or friends were involved   
My family didn't want or need information  I didn't want my family or friends to talk to the hospital staff



33. Did the hospital staff give your family or someone close to you all the information they needed to help you recover? Yes, definitely  Yes, to some extent   
No  No family or friends were involved  My family or friends didn't want or need information
34. Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand? Yes, completely  Yes, to some extent  No   
 I didn't need an explanation  I had no medicines—go to question 33
35. Did a member of staff tell you about medication side effects to watch for when you went home? Yes, completely  Yes, to some extent  No  I didn't need an explanation
36. Did someone tell you about danger signals regarding your illness or treatment to watch for after you went home? Yes, completely  Yes, to some extent  No



**PART FOUR: NURSE-PATIENT INTERACTION SCALE (NPIS)**

*INSTRUCTION: The following statements are about your relationship with the nurse since your admission to this ward with your present illness. From statement 37-50 indicate by ticking in the box on a 10-point Liked scale how much you relate with the nurses during your stay in this ward for each of the statement below (where 1= Not at all and 10= Very much)*

Nurse-Patient Interaction	1	2	3	4	5	6	7	8	9	10
37. I have confidence and trust in the nurses										
38. The nurses take me seriously										
39. Interaction with nurses makes me feel good										
40. The nurses understand how I feel										
41. The nurses make all possible effort to relieve my diseases										
42. The nurses involve me in decisions regarding my daily life										
43. The nurses treat me with respect										
44. The nurses ask me how I am										
45. The nurses are listening interestingly to me										
46. I often get hurt or sad from how the nurses interact with me										
47. Interactions with the nurses contribute to meaning in my life										
48. The nurses pay attention to me as a person										
49. I am satisfied with the communication with the nurses										
50. Interaction with nurses is the most important to my thriving										



**PART FIVE: NEWCASTLE SATISFACTION WITH NURSING SCALE (NSNS)**

*INSTRUCTION: The following statement measure your level of satisfaction with nursing care since your admission to this ward. From questions 51-70, indicate on a 4-point Liked scale the level of your satisfaction with the nursing care in this ward for each of the statement below (where 1= Not at all, 2= Very little, 3= Somewhat, 4= Very much)*

Patient Satisfaction	1	2	3	4
51. The amount of privacy nurses gave you				
52. Nurses awareness of your needs				
53. How willing nurses were to respond to your requests				
54. Nurses treatment of you as an individual				
55. How nurses listened to your worries and concerns				
56. Nurses manner in going about their work				
57. The type of information nurses gave to you about your condition and treatment				
58. The amount of time nurses spent with you				
59. Nurses helpfulness				
60. The amount of freedom you were given on the ward				
61. How nurses helped put your relatives or friends minds at rest				
62. How capable nurses were at their job				
63. The amount nurses knew about your care				
64. The way nurses explained things to you				
65. How often nurses checked to see if you were okay				
66. The amount of information nurses gave you about your condition and treatment				
67. The way the nurses made you feel at home				
68. They are always being a nurse around if you needed one				
69. How quickly nurses came when you called for them				
70. Overall, how would you rate the nursing care you received in this ward (1-item scale)				



## APPENDIX D: CONSENT FORM

### CONSENT FORM

**Title:** Factors Influencing Patient's Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga

**Principal Investigator:** Akayuure Collins Adombire (MPhil Nursing Student)

**Address:** School of Nursing and Midwifery, College of Health Science, University of Ghana, akayuure2@yahoo.com, Tel: 024644845

#### **General Information about Research**

The objective of the study is to examine your level of satisfaction with the nursing care you received from the nurses in this hospital. You are invited to participate voluntarily in a study if you are 18 years and above, and currently on admission at the male and female Medical/Surgical wards at the Upper East Regional Hospital, Bolgatanga. The information gathered in this study will guide nurses in their interactions with patients and their family at the hospital. Once you agree to take part in the study, you will be guided to sign a consent form to confirm your willingness to participate in the study. The duration for filling out the questionnaire is approximately 30-45 minutes.

#### **Possible Risks and Discomforts**

No physical harm will be caused to you since you will be asked to answer some questions. The questions that will be asked will not be invoking any emotional or psychological discomfort. However, if you feel uncomfortable with any question you have the right to decline to answer. Also, where emotional and psychological discomfort is observed the engagement will be stopped for you to recover and continue later or stopped altogether for some professional counselling.

#### **Possible Benefits**

You will not benefit directly from participating in the study but indirectly from the nursing staff as the information gathered will help the nurses to care for you and other patients in the hospital. The study findings will help nurses to understand and appreciate the health needs of their patients in the hospital during their interactions with patients. The study findings will also be useful to nurses at the Regional Hospital, Bolgatanga in their interaction with patients.

#### **Confidentiality**

If you agree to participate in the study, the researcher will ensure that detail personal information such as names, location and relations of you are not included in the questionnaire. You are also assured that the information gathered on the study will not be disclosed to the ward nurses or any other third party without your consent. Furthermore, you are assured that your identity will not be disclosed during presentation of the study finding in conference or during publication of the study without your consent.

#### **Compensation**

You will not be given compensation for participating in the study.

#### **Voluntary Participation and Right to Leave the Research**



Your participation in this study is voluntary, and you are not under any obligation to take part in the study.

You have the right not to participate in the study. You also have the right to opt out of the study at any time if you so wish. Your refusal to participate in the study will not have any negative effect on the care you will receive in the hospital.

**Contacts for Additional Information**

**Principal Investigator:** Akayuure Collins Adombire, School of Nursing and Midwifery, College of Health Science, University of Ghana, [akayuure2@yahoo.com](mailto:akayuure2@yahoo.com), Tel: 024644845.

**Supervisors:** Dr. Kwadwo Ameyaw Korsah, Lecturer, Adult Health Department, School of Nursing and Midwifery, University of Ghana, [korsahtalktalk@yahoo.com](mailto:korsahtalktalk@yahoo.com), Tel: 0243547317.

Dr. Samuel Adjorlolo, Lecturer, Mental Health Department, School of Nursing and Midwifery, University of Ghana, [sadjorlolo@ug.edu.gh](mailto:sadjorlolo@ug.edu.gh), Tel: 0204197158.

**Your rights as a Participant**

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: [nirb@noguchi.ug.edu.gh](mailto:nirb@noguchi.ug.edu.gh)

**VOLUNTEER AGREEMENT**

The above document describing the benefits, risks, and procedures for the research title **Factors Influencing Patient's Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

\_\_\_\_\_  
Date  
\_\_\_\_\_  
Name and signature or mark of volunteer

**If volunteers cannot read the form themselves, a witness must sign here:**

I was present while the benefits, risks, and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

\_\_\_\_\_  
Date  
\_\_\_\_\_  
Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

\_\_\_\_\_  
Date  
\_\_\_\_\_  
Name Signature of Person Who obtained Consent



**APPENDIX E: INTRODUCTORY LETTERS**



**UNIVERSITY OF GHANA**  
DEPARTMENT OF ADULT HEALTH  
SCHOOL OF NURSING

Ref. No.: SON/A.12.....

September 28, 2018

The Chairperson  
NMIMR - IRB  
P.O. Box LG 581  
Univ. of Ghana  
Legon.

Dear Sir/Madam,

**LETTER OF INTRODUCTION**

This is to introduce to you Collins Adombire Akayuure, an MPhil second year student of the School of Nursing and Midwifery.

The Scientific Review Committee of the School has approved the thesis topic: "**Factors Influencing Patients' Satisfaction with Nursing Care at Upper East Regional Hospital, Bolgatanga**".

I hope that the Institutional Review Board of Noguchi will approve the proposal to enable him collect data.

Counting on your usual co-operation.

Thank you.

Yours faithfully,

Dr. Gladys Dzansi  
Ag. Head, Dept. of Adult Health

**COLLEGE OF HEALTH SCIENCES**

• P. O. Box LG 43, Legon, Accra, Ghana. • Telephone: +233 (0) 302 513 250 / 0289 531 213  
• Email: [adulthealth.son@chs.ug.edu.gh](mailto:adulthealth.son@chs.ug.edu.gh) • Website: [www.nursing.chs.ug.edu.gh](http://www.nursing.chs.ug.edu.gh)



**UNIVERSITY OF GHANA**  
DEPARTMENT OF ADULT HEALTH  
SCHOOL OF NURSING

SON/A.12

October 8, 2018

Ref. No.: .....

The Chairman  
NMIMR - IRB  
P.O. Box LG 581  
Univ. of Ghana  
Legon.

Dear Sir/Madam,

**LETTER OF INTRODUCTION**

I write to introduce to you Collins Adombire Akayure, an MPhil second year student of the School of Nursing and Midwifery.

The Scientific Review Committee of the School has approved the thesis topic: "**Factors Influencing Patients' Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga**".

I shall be most grateful for any assistance to enable him collect data.

Thank you.

Yours faithfully,

Dr. Kwadwo Ameyaw Korsah  
SUPERVISOR

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COLLEGE OF HEALTH SCIENCES

• P. O. Box LG 43, Legon, Accra, Ghana. • Telephone: +233 (0) 302 513 250 / 0289 531 213  
• Email: [adulthealth.son@chs.ug.edu.gh](mailto:adulthealth.son@chs.ug.edu.gh) • Website: [www.nursing.chs.ug.edu.gh](http://www.nursing.chs.ug.edu.gh)



**UNIVERSITY OF GHANA**  
**DEPARTMENT OF ADULT HEALTH**  
**SCHOOL OF NURSING**

SON/A.12

September 28, 2018

Ref. No.: .....

The Chairperson  
Ethics Review Committee  
Ghana Health Service  
Accra

Dear Sir/Madam,

**LETTER OF INTRODUCTION**

This is to introduce to you Collins Adombire Akayuure, an MPhil second year student of the School of Nursing and Midwifery.

The Scientific Review Committee of the School has approved the thesis topic: "**Factors Influencing Patients' Satisfaction with Nursing Care at the Upper East Regional Hospital, Bolgatanga**".

I hope that the committee will approve the proposal to enable him collect data.

Counting on your usual co-operation.

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'G. Dzansi'.

Dr. Gladys Dzansi  
Ag. Head, Dept. of Adult Health

**COLLEGE OF HEALTH SCIENCES**

• P. O. Box LG 43, Legon, Accra, Ghana. • Telephone: +233 (0) 302 513 250 / 0289 531 213  
• Email: [adulthealth.son@chs.ug.edu.gh](mailto:adulthealth.son@chs.ug.edu.gh) • Website: [www.nursing.chs.ug.edu.gh](http://www.nursing.chs.ug.edu.gh)



**UNIVERSITY OF GHANA**  
DEPARTMENT OF ADULT HEALTH  
SCHOOL OF NURSING

SON/A.12

October 8, 2018

Ref. No.: .....

The Chairperson  
Ethics Review Committee  
Ghana Health Service  
Accra

Dear Sir/Madam,

**LETTER OF INTRODUCTION**

I write to introduce to you Collins Adombire Akayuure, an MPhil second year student of the School of Nursing and Midwifery.

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I shall be most grateful for any assistance to enable him collect data.

Thank you.

Yours faithfully,

Dr. Kwadwo Ameyaw Korsah  
SUPERVISOR

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COLLEGE OF HEALTH SCIENCES

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• Email: [adulthealth.son@chs.ug.edu.gh](mailto:adulthealth.son@chs.ug.edu.gh) • Website: [www.nursing.chs.ug.edu.gh](http://www.nursing.chs.ug.edu.gh)

**APPENDIX F: PERMISSION LETTER FROM THE REGIONAL HEALTH DIRECTOR**

**OUR CORE VALUES**

- People-Centered
- Professionalism
- Team work
- Innovation
- Discipline
- Integrity



Regional Health Directorate  
Ghana Health Services  
Private Mail Bag  
Bolgatanga, UER  
GHANA.

3<sup>rd</sup> December, 2018

Tel: (03820) 22335

Fax: (03820) 24390

E-mail: [uerrdhs@gmail.com](mailto:uerrdhs@gmail.com)

Ref: GHS/UE/

My Ref. No:

**MR. AKAYUURE COLLINS ADOMBIRE**  
**UNIVERSITY OF GHANA**  
**COLLEGE OF HEALTH SCIENCE,**  
**SCHOOL OF NURSING AND MIDWIFERY**

**RE: PERMISSION TO ACCESS PARTICIPANTS FOR AN ACADEMIC STUDY**

This serves to inform you that you have been granted permission to access participants for your academic study titled: Factors Influencing Patients Satisfaction with Nursing Care at the Upper East Regional Hospital Bolgatanga and Bongo District Hospital Bongo.

By a copy of this letter, the Medical Director of the Regional Hospital and Bongo District Hospital are entreated to grant you access to participants and assist you with all the necessary support you may need to make your study a successful one.

You are also by this letter to take note that you are required to submit a copy of your study to my office.

Wish you all the best in you study.

Thank You

**DR WINFRED OFOSU**  
REGIONAL DIRECTOR OF HEALTH SERVICES (UER)

Cc: The Medical Director Regional Hospital  
The Medical Superintendent Bongo District Hospital  
Regional Research Officer

*NMSW / FMS links*  
*Please assist Mr. Akayure to get his data. Thank you.*  
*2/12/18*

*HSA*  
*Please introduce copies to staff*  
*[Signature]*  
*19/12/18*

*[Signature]*  
*19/12/2018*