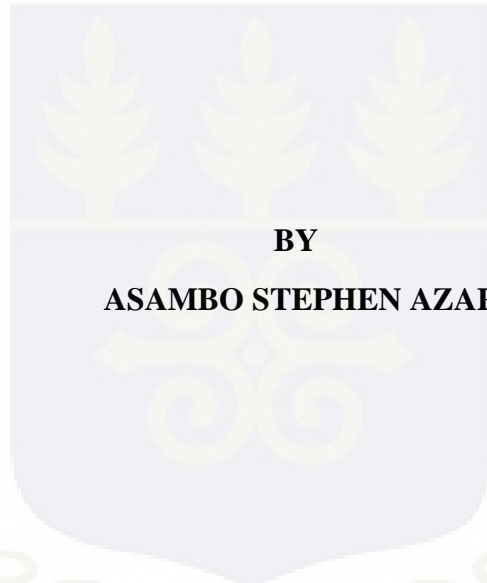


**SCHOOL OF PUBLIC HEALTH  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA**

**ASSESSMENT OF FACTORS AFFECTING DISCHARGE PLANNING  
IMPLEMENTATION IN MARGARET MARQUART CATHOLIC HOSPITAL**



**BY  
ASAMBO STEPHEN AZARI**

**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,  
LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
AWARD OF MASTER OF PUBLIC HEALTH DEGREE**

**OCTOBER, 2017**

## DECLARATION

I, Stephen Azari Asambo, hereby declare that this is my own independent work done. It is not a reproduction of a kind of another study in part or whole. All resources used for information in the course of this study are duly acknowledged and references given.

STEPHEN AZARI ASAMBO

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Student

Signature

Date

Dr. Patricia Akweongo

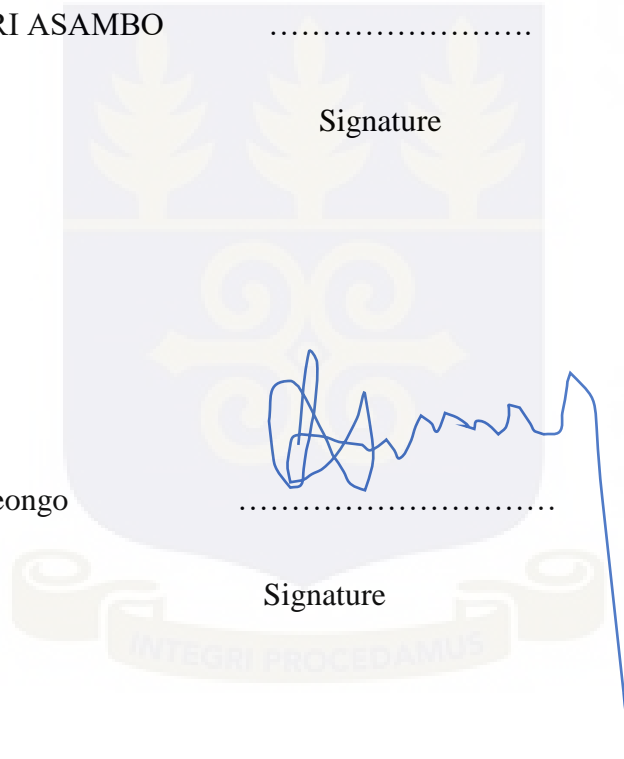
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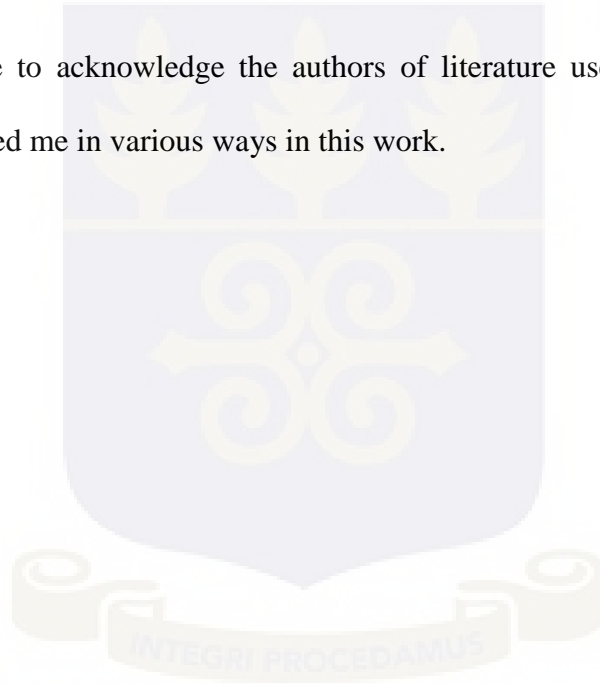
## **ACKNOWLEDGEMENT**

My utmost thanks are to the Almighty God for bringing me this far and for giving me “this choice”.

I am equally thankful to my supervisor for the detailed attention she paid to me during the work despite her busy schedules. I just want to say God bless you.

Sincerely, I am very grateful to the family for their support and all those who inspired who inspired without, probably, knowing it.

It is my pleasure to acknowledge the authors of literature used in this study and the experts who helped me in various ways in this work.



## ABSTRACT

### Background

Discharge from a hospital does not mark the end of care or indicate cure of disease thus care must continue at home in order to maximize health gains. Discharge planning implementation (DPI) ensures conterminous care after discharge and understanding the factors that affect clinical staff's compliance to DPI may improve clinical practice. This study aimed to assess the factors affecting DPI compliance in Margaret Marquart Catholic Hospital.

### Method

In this study, 112 clinical staff and 281 discharged adult patients/relatives were purposively sampled and interviewed at enclosed settings. Structured questionnaires and a data extraction tool were used to collect data from participants and documentary review. The mean/median of each variable was used as a dividing line to split the variables into positive and negative scores. Chi square test was performed for an association and logistic regression for the strength of association.

### Results

The majority (57%) of the staff complied to discharge planning implementation but few patients, (43%), received DPI. Of all the factors, hospital system (OR =3.57, p=0.02, 95%CI:0.20,2.37), the absence of discharge policy and patient health literacy affected DPI compliance.

**Conclusion:** Improving staff compliance requires coordination of system-wide discharge policy implemented by hospital managers demonstrating DPI as a priority to serve patients/families with regard and willingness to wait for discharge planning execution.

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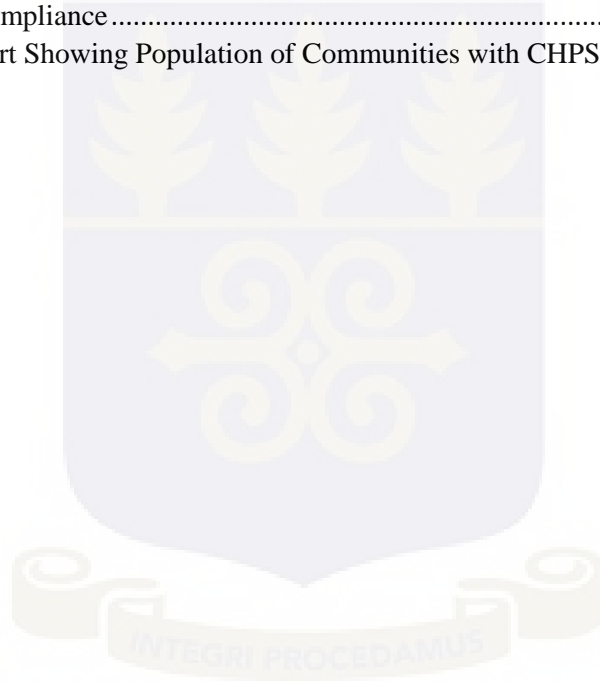
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## LIST OF ABBREVIATIONS

AHRQ:	Agency for Healthcare Research and Quality
ANC:	Antenatal Care
ART:	Antiretroviral Therapy
CHN:	Community Health Nurse
CHPS:	Community-based Health Planning and Service
COPD:	Chronic Obstructive Pulmonary Disease
DP:	Discharge Planning
DPI:	Discharge Planning Implementation
GHS:	Ghana Health Service
MMCH:	Margaret Marquart Catholic Hospital
NHIS:	National Health Insurance Scheme
N&MC:	Nursing and Midwifery Council
OPD:	Out Patient Department
PC:	Primary Caregiver
PCP:	Primary Care Provider
PHN:	Public Health Nurse
USA:	United States of America

# CHAPTER ONE

## INTRODUCTION

This chapter introduces the study of Assessment of Factors Affecting Discharge Planning Implementation Compliance in Margaret Marquart Catholic Hospital. The chapter begins with the background information on discharge planning, the problem statement, and objectives of the study. It also contains the conceptual framework of the study and its narration as well as the justification of the study.

### 1.1 Background of Study

A patient leaving the hospital to home or new location is not indicative of cure of disease and does not mark the end of care. It only marks a transition as the patient/family moves through the health system in search for care, therefore, care needs to continue beyond hospital wards. When a patient is moving from one care settings to another for care or from a facility to home, the care needs to be continued and coordinated to prevent any possible harm associated with the transition (Coleman, 2003; Greenwald, et al., 2007). For this reason, almost every health system in the world, including Ghana's, has transitional care as its feature and a strategy to ensure continuity and coordination of care for patients in transition (Greenwald, et al., 2007; Shepperd, et al., 2016).

The responsibility of enacting care in the transition lies on the patient/family once a patient leaves the hospital. The patient/family, therefore, needs to be prepared to carry on the task of care whether alone or with the assistance of a community primary caregiver (Yam, et al., 2012). To prepare the patient/family appropriately, the preparation needs to be planned with the patient/family (i.e. discharge planning) and implemented using the nursing process.

Discharge planning, as one of the several methods of implementing transitional care, has been identified as the most effective means of transmitting care from the hospital to patients' new location thus achieving continuity of care to meet patient health care needs (Kansagara, et al., 2015; Nordmark, et al., 2016; Wallace, et al., 2016). It is the method through which hospital staff identifies resources and foreseeable needs of patients and therefore, based on their needs, prepares the patient/family in line with these resources, strenght and weaknesses to carry on the task of self-care that lies before them after discharge (Aaron, et al., 2015; Nordmark, et al., 2016).

For patients/families to receive discharge planning, clinical staff first needs to comply to implement it. When staff complies to administer discharge preparation appropriately for patients, it improves the patients post discharge health outcomes, reduces adverse events, prevents unplanned readmissions and increases compliance to treatment (Fox, et al., 2013). It equally increases satisfaction for patients (Balaban, et al, 2008). Despite the full knowledge of the benefits of discharge planning, studies on discharge practice have highlighted several deficiencies in what is expected on discharge and what is actually done.

Globally, discharge practice has gained much attention as about one in five patients are readmitted with problems emanating from discharge (Forster, et al., 2003). The same study and several others have found that discharge is not standardized, hospital care is not coordinated at home and between the primary care providers after discharge but marked with discontinuity (Greenwald, et al., 2007; Sanchez, et al., 2009; Waring et al., 2014). In the study of Pompeo, et al.,2007, it was found not many staff complied to discharge planning but many patients did not have the capacity to enact self-care after discharge.

Discharge planning is a feature of Ghana's healthcare system thus in-patients are to benefit from discharge planning (Nursing and Midwifery Council of Ghana, 2010). What is not yet well known in the Ghanaian health system is the evidence that clinical staff comply with discharge planning implementation (DPI) or not and what possible factors are responsible for noncompliance. Similarly, there is no evidence of the consequences patients in Ghana suffer as a result of discharge problems.

Several researchers have shown that clinical staff non-compliance to discharge planning implementation is associated with three (3) broad categories of factors- health system, hospital (provider) and patient factors (Chang et al., 2015; Greenwald et al., 2007; Wong et al., 2011). Staff compliance to discharge implementation depends on variables emanating from the health system factors such as availability of discharge policy, the design of the discharge planning activities and availability of primary health care providers (PCP). Similarly, staff compliance to implement discharge planning is influenced by hospital (provider) factors such hospital system support, supervision, workload, and staffing, intra-hospital communication and teamwork and assessment of patient/family self-care needs. Finally, Patient factor variables such as health literacy, language deficiencies, regard for discharge planning and willingness to wait for it are known to affect discharge planning compliance and patient understanding of self-care instructions (Forster, et al., 2003; Chang et al., 2015).

The consequences of patients not receiving comprehensive discharge planning implementation due to staff non-compliance have been found through research to include readmissions, adverse events non-compliance to treatment, complications and increased service utilization. Research has also revealed that all these consequences culminate into

increased cost of health care to both the individual/family and the system as a whole. ( Han, et al., 2009; Pompeo, et al., 2007; Stephen,et al., 2009; Walraven, et al., 2004).

In certain countries, different approaches have been used in an attempt to improve discharge planning implementation compliance at different levels of the health system. At the policy level, in the United States of America (USA) for example, research has provided the evidence for discharge policies. Discharge planning has been made mandatory through legislation and established in the patient charter as a right. In addition, readmission rate is employed as an accountability measure to hold hospitals responsible for quality of care. Hospitals are punished if their readmission rates exceed the cutoff readmission rate for such category of the hospital ( Kansagara, et al., 2015; Nordmark, et al., 2016). At the clinical practice level, other studies have experimented different redesigns of discharge planning and devised innovative discharge practices (AHRQ Strategy 4, 2016; Jack, et al., 2009). Yet other studies have focused on understanding nurses' views about discharge and some have focused on barriers to discharge planning implementation and specific patient population such as the elderly (Balaban et al., 2008; Han, et al., 2009; Ke, et al., 2015).

The nursing professionals in Ghana are aware of the importance of discharge planning in ensuring continuity of care but research on discharge planning implementation remains untouched. As a consequence, the proportion of staff who complies to implement discharge planning implementation, the proportion of patients who receive comprehensive discharge planning and the factors affecting the implementation of discharge planning still remain unknown in Ghana. This study aimed to assess staff compliance to discharge planning implementation and the factors affecting discharge planning implementation and serves as a foundation for the improvement of discharge planning in Ghana.

## 1.2 Problem Statement

The Ghana Health Service (GHS) standards of care require every inpatient to be given a comprehensive discharge planning through admission to discharge as detailed in the component task for nurses (Nursing & Midwifery Council of Ghana, 2015). However, it was estimated that 24 percent of inpatients in Margaret Marquart Catholic Hospital (MMCH) did not receive comprehensive discharge planning implementation in 2015. This is indicative that staff did not comply with the standard discharge planning implementation. Some patients were discharged without having an adequate understanding of their medications, what they should do or avoid because of the condition and others were not well prepared to continue self-care at home as well. Some patients/relatives, too, did not receive discharge notes to continue care at their nearest clinic and for others, critical information about their care such as tests results was not shared with the primary caregiver for continuity of care.

Several studies have identified discharge planning implementation noncompliance to be associated with several variables originating from the health system, hospital (provider) and patient factors (Chang et al., 2015; Greenwald et al., 2007; Wong et al., 2011). Discharge planning implementation non-compliance is associated with varying consequences for both the individual patient/family and the health system as a whole. At the individual level, it is associated with adverse events, poor compliance to treatment, complications, and readmissions (Forster, et al., 2003; Coleman, 2003; Fox et al., 2013). At the system level, poor discharge practice is associated with increased service utilization and cost of care (Greenwald et al., 2007; Kansagara, 2015; Snow et al., 2009; Waring et al., 2014).

Despite the known benefits of comprehensive discharge planning to improve self-care, maximize health gained from the hospital and decrease both readmissions and adverse events,

the proportion of staff complying to discharge planning implementation in Ghanaian hospitals and the factors that affect it are still not known. The fraction of clinical staff complying to discharge preparation in MMCH and the factors associated with it are equally not known. Understanding the contributory and contextual factors that hinder comprehensive discharge planning implementation, even in the smallest way, can help improve clinical practice. For these reasons, this study was conducted to assess discharge planning practice in place, the proportion of staff complying to implement discharge and determine the factors affecting staff compliance to discharge planning implementation.

### **1.3 Study Objectives**

#### **General objectives**

The general objective of this study was to assess the factors that affect compliance to discharge planning implementation in Margaret Marquart Catholic Hospital (MMCH).

#### **Specific objectives**

1. To Assess the discharge planning practice in MMCH
2. To determine the hospital (provider) factors that affect discharge planning implementation (DPI)
3. To describe the health system factors that affect DPI compliance
4. To identify the patient factors that affect DPI compliance

## 1.4 Conceptual Framework

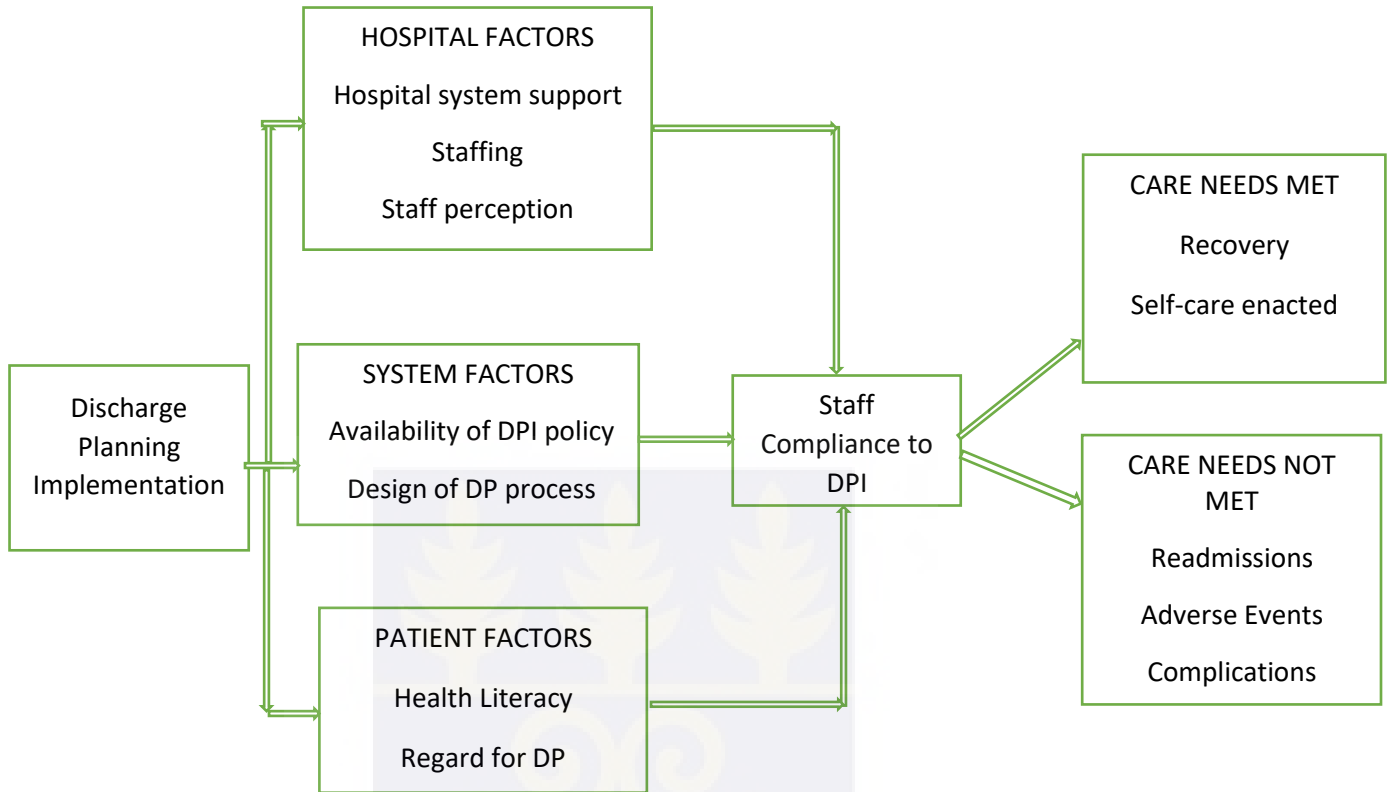


Figure 1: Conceptual framework of Discharge Planning Implementation Compliance

## 1.5 Narrative to The Conceptual Framework

According to the Nursing and Midwifery Council's (N&MC) standard procedure manual, discharge planning is a basic care every inpatient is supposed to receive (N&MC Procedure Manual, 2015). However, staff compliance to implement DP as a duty determines if patients really receive it or not. As shown in Figure 1 above, literature has identified three main categories of factors that affect staff compliance: health system factors, hospital factors and patient factor (Snow, et al., 2009; Wong, et al., 2011)

Hospital factors directly affect staff compliance through several variables including coordination, communication, resources availability, staffing, supervision and in-service

training. Communication and coordination enable discharge preparation to be carried out in sequential and successive fashion, involving multi-disciplines in the hospital and partners such as patients/family as required (Belleli & Pirota, 2013). Hospital factors essentially create a mutually enforcing work climate that affects staff's compliance. Staffing level and workload affect the time available to staff to implement discharge planning and resource availability makes implementation of discharge planning actionable. Also, supervision and in-service training enforces the implementation and enhances the experience of discharge planning respectively (Pompeo, et al., 2007).

Furthermore, health system factors also directly affect staff compliance to implement discharge planning for patients. These include the availability of a general discharge policy, design of the discharge process and availability of primary care providers (Wong, et al., 2011). The design of the discharge process determines the complexity of the tasks staff perform as discharge planning implementation and the designation of responsibility for discharge to an officer determines who is answerable to discharge problems. For example, discharge planning implementation compliance may increase if the system standards require that there should be a nurse officer purposely working on discharge only. The availability of a primary caregiver in patients' communities to receive the client/family and continue the care is a variable that affects staff compliance (Forster, et al., 2004).

In addition, certain attitudes of patients such as regard for discharge planning and willingness to wait (Patient Factors) affect staff compliance to discharge planning implementation. A Patient/family's regard for discharge planning determines if one pays attention to staff to discuss discharge or not (Ke, et al., 2015).

Moreover, the patient's language deficiencies and health literacy affect staff compliance by affecting staff-patient communication, understanding of self-care instructions and the sense - making of medical counseling/advice (Wong, et al., 2011).

### **1.6 Justification of The Study**

Empirical evidence from studies elsewhere suggests some clinical staff does not comply with discharge planning practice as expected and the health consequences it has on the patient are known and predictable. Knowing the proportion of staff not complying to discharge planning implementation can inform hospital management to devise measures to prop up compliance. In addition, identifying contributory and contextual factors, even at a basic level, can inform the development of policies to improve discharge planning implementation compliance leading to the improvement of clinical practice.

This study sought to assess the discharge planning practices in MMCH and also determine the contributory factors of discharge planning implementation compliance from three directions in healthcare (the health system, hospital, and patient). Findings from this study may be used to inform policy makers for improvement of clinical practice. The findings may equally be used to inform patients and the public to have a better attitude towards discharge. Finally, findings from this study may also contribute to the knowledge on patient safety and transitional care.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter, relevant literature on transitional care, discharge planning and patient safety were reviewed for this study. Specifically, the literature on the types of transitional care interventions, discharge planning, and its processes, the nursing process, factors affecting discharge implementation, effects of discharge planning on patients/family, readmissions, adverse events and complications associated with discharge as well as patient safety were reviewed for this study. In the context of this literature review, the generic literature on transitional care and discharge planning are first outlined followed by each area pertaining to the objectives of this study.

#### **2.1 Transitional Care**

The appropriate place for giving a patient the particular care one needs is determined by the condition of the patient, level of skills required and the skilled personnel available. As a result, patients are often admitted to the hospital and special, intensive care is given according to their needs. At improved levels of health, clinicians often discharge the patient to a destination –either a specialized unit/ clinic, hospital or home- one has determined most appropriate for the patient.

Care does not end with discharge and disease is not necessarily cured on discharge, it is, therefore, important to continue care beyond hospital wards to the new destination of the patient, be it the home, rehabilitation center or another care institution. Moreover, convalescent patients are at significant risk of injuries due to their physical weakness,

infections due to probable presence of wound from surgeries and physiological imbalances that may result from adverse events of medications ( Forster, et al ., 2003). These risks necessitate the need for a system that keeps that discharged patients in touch with the health system and equally creates an enabling environment for the patient to meet their healthcare needs in their new location.

Health systems have devised transitional care to ensure patients are transferred smoothly from the hospital to their new settings. Transitional care is the set of actions done to ensure care is continued across settings as a patient moves from the hospital to a new location. It is the “set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location” (Coleman, 2003).

### **2.1.1 Types and Characteristics of Transitional Care Interventions**

Depending on the new destination of the patient, there are different types of transitional care interventions used to transmit care appropriately to meet one’s needs. These include discharge planning, telephone support programs, tele monitoring, and home-visiting among others (Kansagara, 2015).

According to Kassangra, 2015, some characteristics of the various care interventions were identified. Firstly, one of the common characteristics is target population. All the types of interventions target either the patient or provider depending on the destination. For example, if a hospital is transferring the responsibility of care to a primary caregiver, a phone call or written discharge summary could be sent to the community care nurse to continue the care.

Also, the patient could have been the target if they did not need the service of the primary care providers.

In addition, all transitional care interventions have a common key process. These processes include patient/relatives education/instructions, coordination of care, medication reconciliation, and follow ups (Nordmark, et al., 2016). The interventions work through these processes to achieve their purposes such as decreasing readmissions, adverse events and enhancing self-care. Another characteristic of all the intervention types is intensity and complexity of service. The intensity of the intervention refers to the frequency of contacts the patient gets after discharge. For example, a patient may be visited/phoned twice, thrice or more in a week or a month and another patient may be called or visited/phoned once over the same period. Complexity refers to the range of services the intervention covers. For example, a patient may be given a written script with clear instructions during discharge planning implementation on how to take their medications correctly and another may have wound dressing done during a home visit (Jencks & Coleman, 2009). In addition, a pharmacist may phone a patient with medication problems to correct errors regarding the medication and clarify medication use (Kansagara, 2015). The complexity of the intervention given depends on the needs of the patient. Furthermore, interventions have a method of contact. The method of contact refers to the means by which the care is transmitted to the new location of the patient. These methods include phone calls, text (written messages) and face to face contacts. Another characteristic of transitional care interventions is outcome target. This is the measurable objective of the intervention. It refers to the health status intended to be achieved before termination of postdischarge care (Kansagara, 2015). For example, the target for carrying out home visiting for a surgical patient may be wound healing and our target

outcome for doing telephone support for a COPD patient may be sustained independence from a respirator use. These target outcomes depend on the needs, environment and the effectiveness of the method used. Lastly, the type and key person involved are also some of the characteristics of transitional care interventions. The type of intervention refers to the means of achieving continuity of care such as discharge planning and telephone support programs. The key person involved ensures that some personnel such as discharge nurse is designated for discharge planning only.

### **2.1.2 The Choice of Intervention**

The type of intervention used in a transitional care depends on the type of transition the patient is making. For example, if a patient is moving from hospital to home, DP is often preferred in order to achieve the appropriate coordination and continuity.

Different interventions are chosen for different transitions because the level of risk associated with transition differs across the types of transition. For example, the hospital-to-home transition marks an abrupt shift from intensive, provider-driven care to self-managed care, and often from one set of inpatient providers to entirely different providers (Wallace, et al., 2016). Therefore, a comprehensive discharge planning is needed to impart the after-hospitalization caregivers with the skills and information needed to carry on the care to recovery or to meet care needs at the peripheries of the healthcare system.

## **2. 2 Discharge Planning**

Historically, discharge planning started in the United States of America (USA) in the 1960s and have undergone several evolutions to date ( Lin, et al., 2013). The landmarks along the

line of discharge planning development include: Firstly, the Joint Commission on Accreditations of Hospitals in 1983 and The American Hospitals Association in 1984 made discharge planning a requirement.

Secondly, it was classified as informal and formal discharge planning by Mckeehan and Coulton in 1985.

Thirdly, there were discussions about the ethical issues of discharge planning in 1988 and redefinition of its structure in 1990. By 1998, discharge planning had developed into the fundamental nursing intervention for case management (Lin, et al., 2012).

Today, discharge planning is widely seen as part of transitional care and equally seen as a service which can be used to link care at the community level to the hospital. This practice keeps patients in touch with the health care system to minimize undesired health outcomes.

Discharge, simply meaning “allowed to go” in hospital care context, is different from planning the discharge (Chang, et al., 2015). Discharge marks the switch over of care from one phase to another—from staff provided care at the hospital to self-care at home or primary care at the community. Although the receiving end is also going to give the patient care, the level of skills, knowledge and information availability is often not the same, especially in the hospital to home type of transition. Therefore, clinical staff needs to prepare patient and relatives for the new responsibility of giving the care to meet the needs of the patient.

Discharge planning is systematic steps adopted to prepare the patient and relatives and share care information with community-based care givers. It is a process starting from admission to discharge and not a single event. Discharge planning as defined by Shepperd, et al., 2016, “is the development of an individualized discharge plan for the patient prior to leaving the

hospital, with the aim of containing costs and improving patient outcomes”. It is important to note that while discharge means the patient is allowed to go home or another level of care, discharge planning is a systematic inclusive approach deliberately to prepare the patient/family for discharge. With discharge planning, a staff performs it as a task and patient/family involved is informed that the purpose of the discussion is to prepare the patient/family towards taking over the responsibility of care after leaving the hospital. Discharge planning is viewed as the most effective method to meet patient care needs after discharge (Greenwald, et al., 2007).

The difference between discharge and discharge planning reflects on the health of the patient after discharge as well. While discharge may be a field for problems such as adverse events, complications, non-compliance to treatment and medication errors to grow later after discharge, discharge planning offers the patient benefits such as continuity of care leading recovery or satisfaction of care needs (Chang, et al., 2015).

### **2.2.1 Purpose of Discharge Planning (DP)**

Discharge planning implementation is a legal duty of the nurse and a right of the patient in certain countries. The primary purpose of DP is to enable the patient/family take the responsibility of care after discharge. This ensures to extend care beyond the hospital so as to meet patient care needs at home or the new care settings. In detailed terms, the aim of DP is to improve the efficiency and quality of healthcare delivery by ensuring that discharge is only done at the right time, facilitating the transition of patients from a hospital to a post-discharge setting, providing patients with information about their condition and, if required, post-discharge health care (Shepperd, et al., 2013). DP may contain costs and transmit care from

the hospital to the new care settings to improve patient outcomes. For example, discharge planning may influence both the length of hospital stay and the pattern of care within the community by bridging the gap between hospital and home (Shepperd, et al, 2016). DP is able to shorten the length of hospital stay due to the fact that its process starts on the day of admission and continues through as needed to the day of discharge (Waring, et al., 2014).

### **2.2.2 Features of Discharge Planning**

Despite the fact that discharge planning is a type of transitional care intervention that differs from country to country depending on the resources available and the health needs common to the population, there are some peculiar features that are common to it everywhere (Kansagara, et al., 2015). It can be a transitional care on its own or work along with other interventions (Shepperd, 2016). Discharge planning typically extends beyond the hospital to include discharge support and its features mostly include the following.

It is an individualized intervention (Shepperd, et al, 2016). This means discharge planning considers the unique needs of each patient during planning. For example, the needs of an uneducated aged man living in the rural area might be different from his educated counterpart from a city. Based on these differences in needs, discharge planning for these two patients would be different.

Discharge planning starts on admission and proceeds in phases (Shepperd, et al, 2016).

Although discharge planning differs from place to place, it has three phases in most places.

- a) Pre-admission assessment (where possible, for example, when a patient is conscious).
- b) Case finding on admission. This means categorizing the patient according to his level of needs right from admission. The case findings might change as care progresses. For example,

we can determine the anticipated post-discharge needs of a patient who had diabetic foot amputation during discharge planning based on their condition.

c) Inpatient assessment and preparation of a discharge plan based on individual patient needs. For example, a multi-disciplinary team involving different health professionals might assess a patient/family and develop an appropriate action plan to discharge the patient.

However, according to Yam, et al., 2015, discharge planning has four stages: (1) Patient assessment; (2) development of a discharge plan; (3) provision of service, including patient/family education and service referral; and (4) follow up/evaluation (Yam et al., 2012).

Furthermore, one feature of discharge planning is that it is not a single activity but a complex and continuous process (Leppin, et al., 2015). The key processes involved include assessment of patient/family strength and weakness, resource constraints, education/instructions and discussing what life after discharge will be like.

Moreover, discharge planning is known to be an effective tool for achieving continuity of care. Nevertheless, the discharge has been identified as “critical” sources of harms to the patient outside the hospital if it is not planned in line with patient/family strength and weakness. Healthcare professionals, policy makers, and researchers have found “worrying routine levels of patient harm” associated with poor discharge practices (Waring et al., 2014). Despite all these findings, the hospital discharge is still not standardized hence its features vary from locality to another (Forster, et al; 2003). Every health system designs a discharge planning according to its resources and preference.

### **2.2.3 Components of Discharge Planning (DP)**

Generally, the components of discharge planning differ across health systems but the essential component common to all, as identified in literature, include patient/family education/instructions, coordination of post discharge care, medication reconciliation and follow ups (Franklin, et al., 2014; Kripalani et al., 2013; Hansen, et al., 2012)

However, the Agency for Healthcare Research and Quality (AHRQ) has developed a standardized, evidence based key elements of discharge planning. In its IDEAL discharge planning handbook, five key practical components of a standard discharge planning identified to help achieve its goals.

- 1) Always include the patient/family as co-providers in the discharge planning process
- 2) Discuss with the patient/relatives in five key areas to prevent problems at home:
  - Ask them to share what life at home will be like with staff
  - Reexamine patient medications with client/relatives on discharge day
  - Explain specific warning signs and problems of patient condition clearly to client/family
  - Explain test results and what can be done about it
  - Give review appointments indicating where, when and who one should me on review
- 3) Give patient/relatives education in a language one best understands about the patient's condition, the discharge process, and next steps of care
- 4) Evaluate how well clinical staff explain the diagnosis, condition, and next steps in the patient's care to the patient/ family. Then use teach back method to reinforce instructions

- 5) Listen to understand patient/family's concerns, strength and weakness, especially in resources ("AHRQ /Strategy 4/Tool 11", 2016). The AHRQ and other health authorities also require that discharge planning should be written out clearly for hospital clinical staff to follow when implementing discharge. This measure ensures that no part of the discharge planning is skipped and a same standard of discharge is used hospital wide either independently or together with other initiatives.

### **2.3 Factors Affecting Discharge Planning (DP)**

Literature has revealed that there are three main categories of factors affecting discharge planning and these are health system, hospital, and patient factors. These factors are discussed in detail below.

#### **2.3.1 Health System Factors**

These refer to upstream factors that stem from strategic policy levels. Literature has indicated these factors can influence DP in several ways (Greenwald, et al., 2007). The health system factors that affect DP in one country vary from another depending on the priority attached to transitional care and DP in that particular country.

The system factors that influence DP include the presence of communication channels between the personnel involved in care (Greenwald et al., 2007). For example, the mechanisms put in place to facilitate communication between the hospital and primary caregiver. This channel of communication can only exist if the primary caregiver (PC here after) is available in the community of the patient and it can only work if the system has

devised a mutual enforcing mechanism that requires the hospital staff to necessarily contact the primary caregiver about the patient.

Furthermore, availability of discharge policy, designation of responsibility and the design of the DP are system factors that affect provider compliance to the discharge planning. For example, a 2009 study has stated that when the system is designed such that there is a key person with designated responsibility such as a nurse advocate, it leads to better results ( Jack, et al., 2009). This is because this the nurse advocate's performance can be assessed directly and management can take improvement measures to enhance compliance early since he/she is dedicated to the purpose of implementing discharge planning only.

In addition, the presence of a clear discharge policy that guides the conduct of DP in all hospitals is a health system factor that influences provider compliance (Wong et al., 2011). When there is a clearly written discharge policy for the hospital to comply, supervision may be improved and the staff knows exactly what do to do for each patient (AHRQ / Tool 11, 2015.). A policy directive may imply that the system attaches sufficient importance to discharge and that acts to boost compliance. Overall, it is the health system that sets the discharge culture through its leadership. The system defines the understanding of the values, beliefs, and norms about what is important in an organization and what attitudes and behaviors related to discharge planning are supported, rewarded, and expected (Nordmark, et al., 2016; Wong, et al., 2011).

### **2.3.2 Hospital Factors**

According to Greenwald et al., and Wong, et al., these are factors peculiar to a hospital that can determine staff compliance and these factors are such that they are within the power of the hospital management to control (Greenwald, et al., 2007; Wong, et al., 2011). Some of the variables identified from these studies as hospital factors include workload, supervision, resource availability, communication, and training. A 2014 study also identified staffing as a hospital factor that may influence compliance to discharge planning and other patient safety issues as well (Waring et al., 2014). When there is too much work for less staff to handle than it is needed, staff are more likely to make mistakes when performing activities or omit certain activities entirely. This explains how workload and under staffing affect discharge planning implementation (Emanuel, et al., 2008). When there is too much workload more than staff can handle, research has established that staff work in “crisis mode”, paying little attention to the details of the work but concentrate on finishing the task and serving the numbers (“AHRQ”, 2016; Chang et al., 2015).

In addition, studies have identified the level of supervision staff receives as a hospital characteristic that influences staff compliance to discharge planning implementation and other patient safety issues (AHRQ, 2004). More specifically, supervision enforces standard practices in general -the better the supervision, the better the compliance to the execution of discharge planning.

Furthermore, availability of resources needed for discharge planning may influence staff compliance (Greenwald, et al., 2007). For example, availability of stationery and printing machines required for writing good discharge notes or summaries may facilitate staff implementation of discharge planning (Pompeo, et al., 2007).

What is more? The training staff receives regarding discharge planning and communication and teamwork within the hospital may affect their compliance (Waring, et al., 2014). It is known that in-service training boosts staff commitment to adhere to standard practices and similarly, in-service training for staff on discharge planning implementation may increase their compliance. Training gives staff updated knowledge and renews their skills and sharpens their sense of commitment to delivering comprehensive discharge planning.

Lastly, when a hospital establishes intra-communication pathways and teamwork regarding discharge duties it leads to better results (Jack, et al., 2009). For example, when a nurse advocate works together with a nurse advocate to coordinate discharge and reconcile medications, it gives both staff and patient satisfaction and this may enhance compliance (Shepperd, et al., 2013).

In all the literature reviewed, hospital factors are noted to affect staff compliance in other countries although no literature gave the strength of association between hospital factors and poor discharge. The factors highlighted in the literature concords with observed factors relating to hospitals in Ghana as well despite the difference in context.

### **2.3.3 Patient Factors**

One factor that affects the implementation of discharge planning and perhaps considered an important challenge to the implementation is the negative attitude of patients and their families (Chang, et al., 2015). Patients and their families are often in hurry to leave the hospital once discharged such that they do not have time to wait for important sections of discharge planning implementation. Even if everything is ok on the part of the staff, it is still important the patient and their family show interest in discharge preparation and willingness

to wait for it. Discharge planning implementation is just like any other treatment and hence its execution is dependent on patients' consent and willingness to cooperate with staff.

Wong, et al., 2011 and Chang, et al., 2015 both found in their studies that patient language and cultural differences are equally important patient factors that hinder the implementation of discharge planning. For example, the nurse may be willing to implement the DP for a patient but differences in language may hinder full discussions. Again, certain cultural values and beliefs may act as barriers and hinder the implementation of discharge planning. For example, a mother who believes herbal concoction is the best remedy, instead of methylated spirit or other medically prescribed substances, to apply on a baby's umbilical cord may not pay enough attention to discharge discussions regarding the use of methylated spirit for cord dressing.

Furthermore, the health literacy of a patient is another patient factor that may affect the implementation of discharge planning (Greenwald, et al., 2007; Wong, et al., 2011). Implementation of discharge planning is influenced by the patient's understanding of their health needs and what is taught. For example, a patient who knows that one needs a special skill in using crutches after a hip replacement operation may ask for user instructions and that may facilitate the initiation of discharge preparations. In a similar way, a patient who has little knowledge of their health needs may not ask about user instructions. Health literacy informs the patient of their health needs and that influences their conception and behavior towards discharge.

Patient factors are known to affect both the implementation of the discharge planning and its success to reduce adverse events and readmissions (Greenwald, et al., 2007).

As result of the crucial nature of patient factors, the discussion should include every dimension of patient factors that might influence the discharge. The staff involved needs to identify what makes sense in patient's cultural context since education does not mean the transfer of knowledge and skills to patient /family only but also the integration of the new knowledge and practices into the daily activities of the patient (Waring, et al., 2014). For example, when discussing with a patient/family on using a bandage to apply on a wound to speed up healing instead of using gauze and adhesive which looks smaller and appealing, the staff needs to ask the patient if the use of bandage attracted unnecessary attention in their community. Using a bandage to manage a small wound might not make sense in their culture but it is the wound management method the nurse wants to recommend. The assessment phase of discharge planning should be well detailed to identify anticipated needs of the patient as well as the individual patient factors that may hinder full implementation of the discharge plan and adoption of the new role of enacting care (AHRQ, 2015).

#### **2.4 Effects of Discharge Planning (DP)**

“As the needs of patients have increased and become more complex, it is also important that an effective discharge planning system should have the capacity to discriminate and respond to different levels of need for coordination and post-discharge care”(Yam, et al., 2012).

Literature has indicated that discharge planning has a valuable contribution to patient safety after discharge ( Jack, et al., 2008). Howesver, one study has reported that unless an arrangement is made to ensure that the patient can have enough post discharge care support, DP can put an enormous burden on patients (Coleman, 2003). Another study has also indicated that flaws in either the health system design or implementation can affect the impact of discharge planning (Greenwald, et al., 2007).

One additional effect of discharge planning, it has noted to reduce readmissions, adverse events, and complications (Shepperd, et al, 2016). In a 2012 study, it was determined that a structured, systematic and coordinated hospital discharge system ensures a smooth patient transition from the hospital to the community and improve patient health outcomes in both clinical and social aspects (Yam, et al., 2012). Also, in a 2013 Cochrane review, analysis of 12 trials indicated that there is a consistent statistically significant reduction of readmission rates in participants receiving DP than usual care. A similar study in 2008, found a reduction in the intervention group than the non-intervention group ( Jack, et al., 2009).

It must, however, be acknowledged that other studies have reported low evidence indicating an association between good discharge practice and reduced readmissions (Kansagara, et al., 2015). What has been agreed in all studies is that discharge planning reduces readmissions regardless of the location or patient population but it is the strength of association that differs in some studies (Kansagara, et al.,2015). Additionally, DP reduces the occurrence of adverse events and complications (Shepperd et al, 2016) . some studies even attempted report that effective DP reduces mortality but such claims could not be verified (Kansagara, et al., 2015).

## **2.5 Characteristics of Discharge Planning (DP) Effective in Achieving its Effects**

Some studies stated the objectives of the investigations to include characteristics of discharge planning effective in achieving the decrease in readmission, adverse events, and complications. However, these studies have been unable to get to a clear conclusion. It is unclear which characteristic achieves any of the measures but it is indicated that effective discharge planning is typically flexible, comprehensive, coordinated and involves a key personnel (Kansagara, et al., 2015).

It is important to identify these characteristics of DP as it is important to know the active ingredients of a drug to help maximize its benefits.

The DP is flexible when it can accommodate individual patient needs and comprehensive when it contains elements that have the capacity to effectively meet patient care needs after discharge (Kansagara, et al., 2015). When it is coordinated staff discuss needs of patients and share knowledge across settings and a key personnel is designated with the responsibility of executing patient discharge only (Kansagara, et al., 2015, Jack et al., 2009).

## **2.6 Discharge Planning (DP) in The Health System of Ghana**

DP varies from one health system to another depending on the resource availability (Yam et al., 2012) and even sometimes varies from locality to another within the same country depending on the system of governance. Like it is in almost every health system, the N&MC procedure manual indicates discharge planning is a basic service all inpatients should receive and the Ghana Health Service (GHS) patient charter also implies it is a patient's right to receive discharge planning (GH S/Patient Charter, 2006; N&MC Procedure Manual, 2015)

The discharge planning in the Ghanaian health system context, as observed in practice, differs in four ways from what it is in other countries as identified from the literature. The first of these differences is that there is no policy-driven framework for discharge practices across all hospitals. It is considered a core duty of nurses. There is no a policy entity dictating discharge planning as a distinct entity of service package administered to patients as treatment and a transitional care intervention like it is in some countries.

Secondly, discharge planning is only part of the nursing educational curriculum. The components of discharge planning are not written out as a protocol for execution in hospitals. Per the components of discharge in the component task for nurses, discharge activities can be

grouped as patient education/instructions, coordination, physical preparation and follow-up visit. In practice, certain discharge planning activities are implemented according to the discretion of the nurse. For example, it is stated in the curriculum that discharge planning starts on the day of admission and nurses know this but the day of admission is not universally defined across all settings. For example, it is observed from practice that in emergency units and small facilities, the first day of stay in the hospital is often referred as a day of detention not day of admission. Staff in these units (Emergency units and detention facilities) therefore often do not include comprehensive discharge planning as their duties due to this inconsistency. The disadvantage of this liberal style of DP design is that some hospitals and units might ignore it and only perform the “visible or measurable” aspect of discharge such as removal of cannula and administrative duties (entering the patient name details into hospital records) similar to situation stated in the study of Chang, et al., 2015.

Thirdly, a patient receives discharge planning, usually, only if the patient is leaving the hospital to home (i.e. hospital to home type of transition). Within the Ghana health system culture, discharge, usually, means the patient is leaving the hospital to home and does not refer to patients who are moving to different units of the same hospital such as a patient moving from surgical wards to orthopedic units or different facilities. Such transitions are often referred to as transfer out or referral respectively. As a result, patients in the former type of transition do not usually receive discharge preparations. This characteristic of discharge practice in Ghana reduces the workload on staff. However, it might lead to discontinuity of care and loss of critical care information such as pending test results, medications and care materials. For example, some patients may repeat a laboratory test done previously after being

transferred to a new ward because the previous test results were lost during the transfer and this could have been prevented if discharge planning was given.

Lastly, follow-up is prioritized over home-visiting and innovative discharge components such as telephone support and telemonitoring. Follow-up is two-way (i.e. either the patient visits the clinician or the clinician visit the patient, depending on the schedule) arrangement between the clinician and the patient to meet on an appointed date (Kansagara, 2015). However, follow-up in Ghana is often one patient visits the clinician. A telephone support program allows the clinician to phone a patient and review medication or give any support possible including reinforcing discharge instructions (Jack et al., 2009). Telemonitoring is an innovative discharge component, although it can be an independent intervention, which allows the monitoring of physiological changes such blood sugar level, blood pressure and heartbeat rate through a mobile application (Kansagara, 2015). Through telemonitoring, life threatening events such as heart attacks can be identified in advance.

## **2.7 Methods of Assessing Discharge Planning (DP)**

In the literature reviewed studies concerned with factors affecting DP used quantitative cross-sectional approach (Forster, et al., 2004; Greenwald, et al., 2007; Shepperd et al., 2013). However, Wong, et al, (2011) and Chang, et, (2015) both used a qualitative approach (Chang, et al., 2015; Wong, et al., 2011). Studies that focused on determining the effects of discharge planning also used a quantitative approach using randomized control trials in particular (Courtney, et al., 2011; Efirid, 2011; Jack, et al., 2009). Furthermore, studies that focused on assessing the occurrence of adverse events, complications and readmissions used a

quantitative approach to conduct a prospective cohort study (Forster, et al., 2004; Greenwald, et al., 2007)

Regarding the sampling methods, different sampling techniques have been used in various studies. However, this study used a purposive sampling method to sample both staffs and discharged patients. This is because it is only clinical staff who are engaged directly in giving care and for the patients/relatives, one study reported that patients will be able to describe their experiences better if they are approached after discharge. Therefore in-patients and out-patients were not sampled (Lawton, et al., 2015).

In the literature reviewed, it was noticed that data was often collected with a structured questionnaire. In some studies, patients were phoned and interviewed using a structured script as interview guide to collect data (Greenwald, et al., 2007; Jack, et al., 2009). In-depth interviews were also used in the qualitative studies (Chang, et al., 2015; Wong et al., 2011). In this study, the survey was done using Likert scale questionnaires.

## **2.8 Summary**

In summary, different studies have been done on discharge planning. Some have been focused on a particular patient population such as the elderly and heart failure patients. Some focused on the views of nurses in only a department of hospital and others centered on only key components of discharge planning. In addition, some studies have looked at identifying sources of problems of discharge but no known studies have determined factors affecting clinical staff ability to implement discharge planning in whole – hospital factors, health system factors and patient factors altogether using a quantitative approach.

Furthermore, all the studies were done in different countries with different health system context. This study undertook hospital clinical staff survey and a sample of the general patient population in MMCH to determine factors affecting discharge planning. In addition, a documentary review was performed to assess other health system factors relating to discharge planning which cannot be assessed from participants.



## **CHAPTER THREE**

### **METHODOLOGY**

This chapter gives the step-by-step detailed description of how the study was conducted. It explains the study design, study location, sampling technique and sample population. It also includes the variables, data collection, data analysis and ethical issues of the study.

#### **3.1 Study Design**

This study was a cross-sectional study that used a quantitative approach to accomplish the objectives of the study. In this study, clinical staff and adult-inpatients who have been discharged were recruited to assess hospital, health system and patient factors that affect provider compliance to discharge planning implementation. It was conducted from May 29 to June 15, 2017.

#### **3.2 Study Location**

Margaret Marquart Catholic Hospital (MMCH) is a large general district level hospital with a 163-bed capacity and an average annual admission of 8,480 in 2016. MMCH is located in the Konda community along the Kpando-Hohoe road of Kpando township (Fig. 2).

Kpando Municipal is one of the twenty – five (25) administrative districts/municipals in the Volta Region. The Municipality lies within latitudes 6° 55' N and 7° 05' N, and longitude 0° 23'E. It shares boundaries with Biakoye District in the north, Afajato South to the East and North Dayi District in the south. The municipality covers approximately a total land area of 314.07 square kilometers representing 1.5% of the Volta Region with almost 12% of the land submerged by the Volta Lake.

The population of the municipality was 62,317 as projected from the 2010 Population and Household Census with an annual growth rate of 2.5%. The map attached here is the map of Kpando Township with MMCH marked.



Figure 2: Map of Kpando Town

Kpando is culturally diverse with both rural and urban dwellers and people of the municipality are engaged in several occupations but the majority of them were farmers, fishermen, traders, and professionals.

The municipality has two admission hospitals, 5 health centers and 7 Community-based Health Planning and Service (CHPS) centers. MMCH, one of the two admission facilities, is the largest health facility in the municipality and serves as a referral center for the surrounding

health facilities. As the main referral hospital, MMCH provides a wide range of service such as general medical and surgical services, pediatric care, maternal, gynecological and obstetric services. MMCH also provide other specialized services such as urology but not always. These specialized services provided to patients necessitate specialized post-discharge care thus effective communication, sharing of knowledge, information across care settings and coordination of care with the peripheral care providers are measures needed to prevent discharge failures. All above features of Kpando Municipality and MMCH made the hospital a suitable site for this study.

### **3.3 Variables of The Study**

#### **3.3.1 Dependent Variable**

The dependent variable of this study was clinical staff compliance to discharge planning implementation. It is a binary variable measured as staff compliance or noncompliance to implement comprehensive discharge planning to patients based on one's needs as it is required by the Ghana Health Service (GHS) and international standards of care.

#### **3.3.2 Independent Variables**

The independent variables of the study were of three main categories. These are the health system factors, hospital factors, and patient factors. Details of the variables under each specific factor are described below.

##### **Provider (Hospital) Factors**

Staff compliance to implement discharge, like most services, is dependent on the hospital system, supervision, communication and teamwork, workload and staffing. It is equally

dependent on the hospital-primary caregiver communication and coordination, and staff perception about the discharge situation in the hospital. In addition, staff compliance also depends on staff-patient communication and assessment of a patient's home/new location needs. All these variables were assessed in the study. Each of these variables was broken down into items in a questionnaire for staff survey.

#### Supervision

This variable was composed of 4 items. It was categorized as effective supervision if a respondent scored above the median score and ineffective supervision if the respondent scored below the median. The median was used as a dividing line because the data was skewed. The areas of supervision assessed included supervisors reward for discharge planning implementation (DPI) compliance (1 item), whether supervisors asked for verbal/written reports (2 items) on DPI and whether they overlooked shortcut DPI (1 item).

#### Hospital-Primary Caregiver Communication and Coordination of Post-Discharge Care

This was also made of 4 items and categorized as coordinated if the respondent scored above the median score of all the items combined and uncoordinated if the respondent scored below it. The items asked if staff do create a channel of communication between the hospital and primary caregivers (1 item), if patients were given discharge notes/summaries (1 item), whether primary care providers do give hospital staff feedback (1 item) and whether hospital staff shared critical patient care information with primary care providers (1 item).

#### Intra-Hospital Communication and Teamwork

This variable was made of 4 items assessing three areas: inclusion of multi-disciplines in discharge planning (1 item), the cooperation of other clinicians in DPI (1 item) and

communication between units/staff regarding DPI (2 items). It was categorized as effective intra-hospital communication and ineffective intra-hospital communication. It was scored as effective communication if a staff scored above the median score of the items combined or else it was regarded as ineffective intra-hospital communication.

#### Availability of Materials

This was a single item variable assessing how the availability of materials affected DPI. A respondent was given a positive score (i.e. materials are available) if one responded with 4 or 5 of the responses and all other scores were regarded negative (i.e. materials unavailable).

#### Staff Perception About Discharge Planning in the Hospital

This was a 3-item variable asking if staff perceived discharge as a generally neglected issue (1 item) and if staff thought there was a problem with discharge in the hospital (1 item). It also asked if staff thought patients discharge was sometimes sacrificed to get more work done. It was categorized as positive and negative staff perceptions if staff scored above the median score of the combined items or negative if below it.

#### Patient Home/New Location Needs Assessment

The inclusion of patient/family (1 item) and assessment of anticipated needs (2 items) were the 2 areas this 3-item variable assessed. A staff was given a positive score if one scored above the mean score of the items combined or negative if they scored below the median score.

### Staff-Patient Communication

This was a 3-item variable that asked whether staff spoke in plain language to patients (1 item), whether staff spoke slowly during discharge discussions (1 item) and whether patients felt free to question the decision of staff regarding their discharge (1 item). The mean score of the items combined was determined and a staff's communication with patients was scored as effective or ineffective if they scored above the mean or below it respectively.

### Workload and Staffing

This variable had 3 items checking if there was enough staff to handle the workload (1 item), if staff worked longer than it best for standard discharge practice (1 item) and if they work in "crisis mode" (1 item). It was categorized as fair workload if a respondent scored above the median of a score of the items and heavy workload if below the median.

In-Service Training: This was a 1 item variable that asked the staff if they received in-service training pertaining to discharge planning on regular basis-at least yearly. A staff was scored "yes" if one scored 4 or 5 of the scaled responses and "no" if one scored below 4.

### Hospital System Support

This was a 2-item variable and 1 item asked the staff if the procedures and systems in the hospital were good at ensuring DPI is compiled whereas the other asked the staff if the hospital is actively doing things to improve discharge practices. It was scored supportive hospital system if a staff scored above the mean score of the items combined or unsupportive hospital system if below it.

### Health System Factors

The intricacies of the health system affect the ability of clinical staff to comply with discharge planning implementation. In this study, five (5) variables were explored in all: Discharge policy related variables such as availability of discharge policy, designation of discharge responsibility and the design of the discharge planning process and primary care related variables such as availability of primary caregivers and availability of primary care facilities in/near the communities of patients for continuity of care. These factors were assessed from the documentary review, views of clinical staff and patient-participants as well.

### Patient Factors

Recent strategies to improve quality, safety and efficiency of health service has identified the client not only as a consumer of the service but importantly a co-producer of the service. As co-producers, clients' regard for discharge preparation and willingness to wait are crucial for staff compliance to implement a comprehensive discharge. These variables were assessed from both the perspectives of staff and patients/relatives but using separate questionnaires. Additionally, clients/family's health literacy and language deficiencies are essential for their comprehension of instructions and all communications regarding discharge thus affect discharge planning implementation compliance. These variables were examined from patient own perspectives only.

### Health Literacy

This was a 4-item construct assessing clients' pre-admission knowledge of their condition, how they judged the severity of their condition, willingness to ask about their diagnosis and

how they regarded continuity of treatment after discharge. The mean score of this construct was determined and the variable was categorized as adequate health literacy if above the mean or inadequate health literacy if below the mean.

#### Patient/Family Regard for Discharge Planning (DP)

This was a 1-item variable that asked clients how important they regarded discharge planning. A patient was considered to regard DP as important if one responded “very important”/ “important” and unimportant if one responded “neither”, “unimportant” or “absolutely unimportant”.

#### Willingness to Wait

This 1-item variable that asked clients for the urgency with which one preferred to leave the hospital if all left for them to wait for was discharge preparation. A client was considered to have the willingness to wait if the client responded one can wait for “30 minutes” or “more than 30 minutes” and not having the willingness to wait if the client responded one can wait for “15 minutes” or “leave immediately”.

### **3.4 Sample Size**

Sample sizes for staff and patient respondents were determined using the Yamane and sample size for single proportion calculation formulae respectively. These sample sizes formulae were used based on literature (Mark, et al., 2006). The Yamane formula is used for small finite population whereas the sample size for a single proportion formula is used for an infinite population. The clinical staff population of the hospital was finite and the patients’ population was infinite. As result, these formulae were appropriate for calculating the sample size of various respondents of this study.

### Sample Size for Clinical Staff

The total clinical staff population size (N) of MMCH = 150.

At 95% confidence interval, alpha level ( $\alpha$ ) = 0.05

Per the Yamane formula, sample size needed (n) =  $N/1+N.e^2$

Therefore  $n = 150/1+150. (0.05)^2 = 110$ .

In all, 120 staff were recruited to make up for incomplete questionnaires.

### Sample Size for Discharged Patients

size needed (n) =  $(z^2pq)/d^2$

from the problem stated for this study,

$p=0.24$ ,  $q=0.76$ , at a 95% confidence level z is 1.96 and  $\alpha=0.05$ .

$$n = (1.96)^2 \times (0.24 \times 0.76) / (0.05)^2$$

So  $n = 281$

In all, 308 patients were actually sampled to cover for incomplete questionnaires.

### 3.5 Sampling Technique

The clinical staff and adult discharged patients/family aged 18 years or older were selected through purposive sampling for this study. To get staff participants, staff on duty in each ward were approached individually, one at a time, and invited to the study. This was repeated each day until the desired sample size was obtained.

#### Discharged Patients

Patients who received complete discharge preparation and were ready to leave were identified following discussions with the ward in-charge. These patients were approached outside the ward while on their going home and were invited to participate in the study. This procedure was repeated daily until 292 patients/relatives were interviewed.

### 3.6 Data Collection

#### Data Collection Tools

Data for this study were collected from clinical staff and discharged patients of Margaret Marquart Catholic Hospital (MMCH) with 2 separate questionnaires-one for staff and another for the discharged patients-and a data extraction tool (Appendix 1,2&3). As shown in Figure 3 below, all questions in each questionnaire, except 3 in each questionnaire, were Likert scale items with responses arranged from strongly disagree, disagree, neither, agree to strongly agree. Values were attached to the responses such that the most positive response carried the highest value and the values arranged 1 to 5 in order of the responses (i.e. strongly disagree=1, disagree=2, neither=3, agree=4 and strongly agree=5).

**Figure 3: Likert Scale**

Strongly Disagree	Agree	Neither	Agree	Strongly Agree
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## Data Collection

The staff on duty were approached and those who agreed to participate in the study were invited into an enclosed setting. The purpose, risks, and benefits of the study, as well as the consent form, were explained to participants. Participants were then asked to sign the consent form and an interview proceeded or participants proceeded to fill in the questionnaire if they wanted to fill it themselves. Completed questionnaires were collected in opaque envelopes to ensure confidentiality.

With regards to discharged patients, patients/relatives were identified after discussions with the ward staff. It was ensured that staff had completed their routine discharge preparations before patients were approached individually while on their way going home. Patients/relatives who agreed to participate in the study were invited to an enclosed setting where the purpose, risks, benefits and time required for the study were explained in a language patients/relative understood best. Participants were then asked to sign the consent form and proceed to fill a questionnaire if they can or have it read to them in the form of an interview and responses filled in the questionnaire. Patients/relatives who could not speak the languages spoken by the researchers and those who could not communicate comprehensibly verbally or in writing were excluded from the study.

With regards to the documentary review, data were collected at two levels: the documents related to discharge practices in Ghana and the documents of the municipal health directorate level. All the data were extracted from official documents and other records.

### **3.7 Data Processing and Analysis**

All questionnaires were checked for completeness and given identification numbers for future tracking. Data from a total of 120 staff and 292 patient questionnaires were entered into Stata 14 version as separate data sets and cleaned. After cleaning missing items, 112 staff and 281 patient observations were left for analysis.

Prior to analysis, negatively worded items were reversed such that strongly disagree scored 5, disagree-4, neutral -3(i.e. remained unchanged), agree-2 and strongly agree-1. These new values for those items were then used for the analysis instead of the original values attached to each response.

Also the ages of patient respondents were categorized into two groups: Adults and the elderly. Adults were patients aged 18 years to 69 years whereas the elderly were those aged 70 years or older. This categorization was based on the Ghana National Health Insurance Scheme (NHIS) age grouping criteria. The GHS Out-Patient Department (OPD) attendance age grouping criteria (i.e. adults and under-five) was not used because persons below the age of 18 years were excluded in this study.

The variables of the study were then recomposed to consist of items of the same construct and alpha reliability test was performed for items in each variable and the skewness of each variable was tested as well. The total score, mean and median scores of the variables were determined. The score of each variable was categorized into two: positive score and negative score. The mean was used as a dividing line to categorize the variable if the score for the variable was normally distributed and the median was used as the dividing line if the score of

the variable was skewed. A positive score was a score above the mean or median otherwise it was regarded as a negative score. The mean and median were used to ensure that it was the number of items a respondent scored positive at the item-level that decided if one had an aggregate positive or negative score for a variable thus it ensured rigor for the analysis.

Chi square test was performed to test for association between discharge planning implementation compliance and all the independent variables. The hospital variables that were significantly statistically associated with discharge planning implementation compliance were fitted into a logistic regression model for statistical analysis. Health system and patient variables and demographic characteristics of respondents were excluded from the regression model even if they were significantly associated with discharge planning implementation since they were for descriptive purposes. Data collected from the document reviews were not analyzed statistically. It was used for the descriptive purposes.

### **3.8 Quality Control**

For the purpose of quality control, one research assistant was trained on how to identify discharged clients, how to approach clients and how to explain the content of the questionnaires and consent forms to clients as he was involved in data collection from clients/relatives only. A third person was included in the training sessions on translation so that the research assistant explained the content of the questionnaire and consent form in Ewe (the predominant dialect spoken in Kpando) to the third person. The third person then explained it in English and clarifications were made until the research assistant understood how to collect data correctly independently.

### **3.9 Ethical Considerations**

The proposal for this study was submitted to the Ghana Health Service (GHS) Ethics Review Committee for ethical approval before the commencement of the study. In addition to the ethical approval obtained from the GHS Ethics Review Committee, permission was sought from the Kpando Municipal Health Directorate and management of MMCH to conduct this study.

#### **Subjects Involved**

This study involved two categories of participants: clinical staff and adult patients/relatives aged 18 years or older. The clinical staff included doctors, nurses, pharmacists, nutritionist, physiotherapist, and ward aides of MMCH since they are the staff involved directly in discharge planning implementation. On the part of discharged patients, only patients/relatives who were ready to leave the hospital were approached to participate in this study. Patients/relatives who could not communicate verbally or in writing in languages the researcher/assistant understand were excluded.

#### **Potential Risks/Benefits**

Participants involved in this study were exposed to the risk of psychological harm because some of the questions that were asked for the data collection may evoke painful past memories. Participants, however, may benefit, in the long term, in the form of health gains and satisfaction from clinical services if the findings from this study are used for the improvement of clinical practices.

### Privacy/Confidentiality

In this study, privacy for all participants was ensured by collecting data at a convenient setting such that only one participant was interviewed at a time. For patient-participants in particular, data was collected in a setting outside each ward to enable them to feel more secure in giving responses.

Moreover, completed questionnaires were collected into opaque envelopes provided to ensure confidentiality. Ultimately completed questionnaires were kept under lock and key at the end each day to ensure the data was safe from unauthorized access.

### Consenting

Both patients and staff who accepted to participate in this study were asked to sign a consent form indicating their voluntary agreement to participate in the study. Before a participant signed the consent form, they were required to read the full information sheet or have it explained to them in a language they best understood.

### Voluntary Consent/Withdrawal and Compensation

It was explained, prior to the start of data collection, to every participant that participation and consenting in this study was voluntary and that they could withdraw any time in the interview and data collected before their withdrawal will be destroyed. Participants were also informed that withdrawing the study will not attract any denial of benefits.

### Conflict of Interest

The researcher had no conflict of interest in this study.

## CHAPTER FOUR

### RESULTS

The data collected for this study were analyzed and the results are presented in this chapter. The results presented are on discharge practices in place in the hospital, discharge planning compliance, hospital, health system and patient factors associated with discharge planning implementation compliance. Figures and tables are used to display some results.

It is important to mention that few staff (4) and patients/relatives (6) declined our invitation to participate in this study for time and personal reasons. These persons were excluded from the analysis therefore it does not affect the results reported below.

#### **4.1 Socio-Demographic Characteristics and Professional Experience of Clinical Staff**

A total 112 of the clinical staff in Margaret Maquart Catholic Hospital (MMCH) were approached for the study of which 112 interviewed for this study while 4 declined to participate. About 63% (70) of the clinical staff participants were females. Most of the clinical staff 60.7% (68) were between the ages of 26-32 years and more than half (55.4%) of them were registered nurses (Table 1)

Many of the staff, 77.68% (87), were nurses of three cadres (registered, enrolled and community health nurses) and occupied the ranks of staff nurses with about one-fifth of the nurses also occupied rotation or interneer ranks (Table 1). The clinical staff worked in 7 units and many of them worked in the children 17.7% (20), medical 16.1% (18), maternity unit 14.3% (16) with the antenatal clinic, reproductive and child health having the least number of staff (Table 1). The majority, (54.46%), of the staff, had 1 to 5 years work experience in the hospital and 61.61% had ever worked in 1 to 2 units of the hospital. Most staff had less than

one year and 1 to 3 years' (37.5% and 44% respectively) experience in their current units. On average, staff worked 40 to 59 hours per week although a few (8.04%) worked up to 80 to 99 hours a week.

Table 1: Demographic Characteristics of Staff Respondents

Characteristic	Frequency(%)	Characteristic	Frequency(%)
Age (years)		Units ever Worked	
19 to 25	28 (25)	1-2	69 (61.61)
26 to 32	68 (60.71)	3-4	25 (22.32)
33 to 39	9 (8.04)	5-6	10 (8.93)
40 to 46	2 (1.79)	7-8	8 (7.14)
47 or >	5 (4.46)	Current Unit	
sex		OPD***	10 (8.93)
Male	42 (37.5)	Theatre	12 (10.71)
Female	70 (62.5)	Maternity	16 (14.29)
Profession		Medical	18 (16.07)
Registered Nurse*	62 (55.36)	Children	20 (17.86)
Doctor	4 (3.57)	RCH/ANC	9 (8.04)
Enrolled Nurse	20 (17.85)	Surgical	14 (12.5)
Pharmacist/ Technician	4 (3.57)	Pharmacy***	13 (11.61)
Midwife	15 (13.39)	Tenure in Unit	
CHN/Nutritionist*	7 (6.25)	< 1 year	42(37.5)
Rank		1-3 years	50(44.64)
Rotation	25 (22.32)	4-6 years	13(11.61)
SN**	70 (62.5)	7yrs or >	7(6.25)
NO	12 (10.71)	Working hrs / Week	
PNO	5 (4.46)	< 20 hours	3 (2.68)
Tenure in Hospital		20-39 hours	15 (13.39)
< 1 year	34 (30.36)	40- 59 hours	73 (65.18)
1-5 years	61 (54.46)	60-79 hours	10 (8.93)
6-10 years	11 (9.82)	80- 99 hours	9 (8.04)
11-15years	2 (1.79)	100 hours or more	2 (1.79)
16 years or more	4 (3.57)		

\*Includes (1) staff of different profession

\*\*Includes staff nurses, senior staff nurses and other staff within the second ranks of their cadre.

\*\*\*Includes staff from other units

#### **4.2 Enabling Factors for implementation of Discharge Planning**

All the factors measuring staff care response and attitude to discharge planning had positive scores except workload and staffing (Table 2). This means that staff in Margaret Marquart Catholic Hospital (MMCH) thought all factors enabling discharge planning implementation (DPI) were available thus discharge planning implementation was complied (57% positive score). Although a 50% positive score and above indicated a positive situation, a score below 60% indicated an area that required improvement. A score above 60%, however, indicated an area of strength for DPI compliance.

Patient language (88%), intra-hospital communication and teamwork on discharge planning (63%), hospital system support for DPI (63%), client education on their medicines and condition (62%) and patient attitude towards discharge (60%) were the areas of strength for discharge planning implementation in MMCH. However, areas that needed improvement to enhance discharge planning included Workload and staffing (42%), follow up appointments (53%), patient home/new location post-discharge care needs assessment (54%), discharge initiation day (54%), availability of materials (57%), staff-patient communication (57%), DPI compliance (57%), hospital-primary caregiver communication and coordination of postdischarge care (59%) and Supervision (59%) (Table 2)

Table 2: Percentage Score of Variables Assessed in The Study

Variable	% positive response score	%negative response score	Mean score	Median score	SD
1.Hospital-Primary Caregiver(PC) Communication	58.93	41.07	13.66	14	2.11
2. Intra-Hospital Communication	63.39	36.61	13.97	14	1.90
3. Hospital System support	63.39	36.61	7.25	8	1.13
4. supervision	58.93	41.07	12.87	13	2.24
5. Follow up appointments	52.68	47.32	6.82	7	1.23
6. Assessment	53.57	46.43	12.38	13	1.6
7. Staff perception	50.87	49.11	9.48	10	1.64
8. Workload and Staffing	41.96	58.04	8.46	8	1.36
9.Availability of PC	58.93	41.07	6.50	7	1.25
10.Client Education	61.61	38.39	6.84	7	1.20
11.Staff-patient communication	57.14	42.86	10.69	11	1.30
12.Discharge planning Initiation day	53.57	46.43.	5.48	6	0.83
13.Availability of material	57.14	42.86	3.39	4	0,78
14.Patient Attitude	59.82	40.18	6.15	6	0.66
15. Patient Language	87.50	12.50	2.69	3	.069
16.Discharge Planning Implementation compliance	57.14	42.86	6.54	7	1.54

### **Staff perception of the discharge situation in Margaret Marquart Catholic Hospital (MMCH)**

Clinical staff graded the hospital's performance on discharge planning implementation (DPI) as part of an assessment of their perception of the discharge situation in MMCH. On a grade of excellent to failing, most of the staff thought the discharge situation in the hospital was acceptable (Figure 3). Only 3.57% (4) of the staff scored the hospital's performance as excellent, but the majority of the staff scored it as very good 38%(43), or acceptable 47%(53). Eleven percent (12), however, scored it as poor. Though the majority of the staff, irrespective of their unit, graded the hospital's performance as very good or acceptable, only one

admission unit's (surgical ward) staff and staff from two non-admission units (ANC/OPD) graded the hospital's performance on discharge planning implementation as excellent. In contrast, two-third (8) of the staff who graded the hospital's performance as poor came from non-admission wards.

The score of staff perception about discharge situation in the hospital, other than the hospital grade, was 51%. It did not indicate an area needing improvement but simply reflects the reality of DPI situation in MMCH. Generally, many staff in admission wards perceived more positively about the discharge situation than those in non-admission units (Figure 4). However, within the four admission wards (medical, surgical, maternity and children wards), many staff, 81% (13), in the maternity unit perceived DPI to be better than the rest of the units. The uniqueness of the maternity was that it used a ward-based health talk program to educate and instruct clients whereas the other wards used usual patient education during discharge. This explained the high proportion of staff in the maternity unit who perceived positively about the discharge situation. Comparatively, the proportions of staff in the rest of admission wards who perceived discharge situation in the hospital as positive were relatively smaller with 64% (9), 45% (9) and 39% (7) being the staff of surgical, children and medical wards respectively. Interestingly, exactly half (5) of the staff in the OPD thought the discharge situation in the hospital was positive (good) whereas six of the nine respondents from the ANC/ART unit also perceived the discharge situation as positive. As to the remaining two non-admission units, 8 of the 13 and 7 of the 12 respondents from the pharmacy/emergency and theater units respectively also perceived the discharge situation in the hospital as positive.

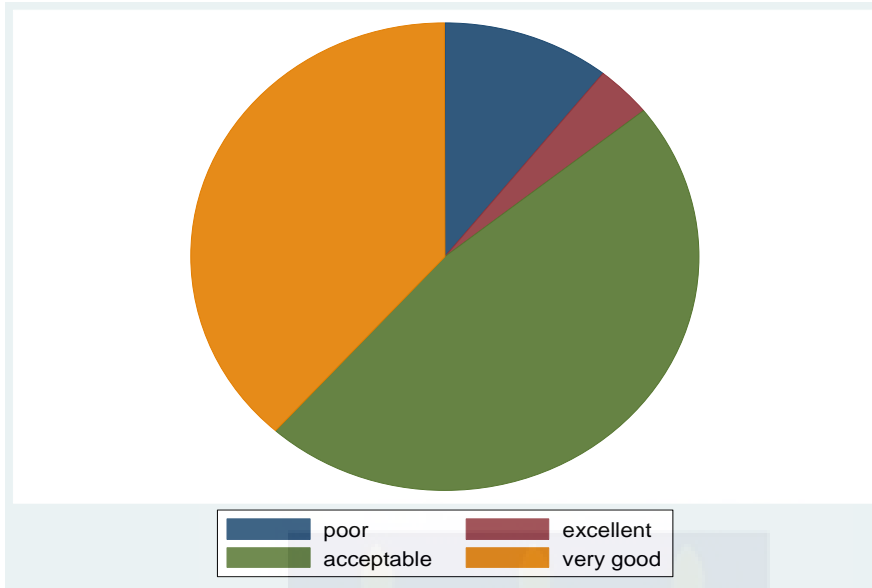


Figure 4: Pie Chart of Hospital overall score of Discharge Planning Implementation compliance

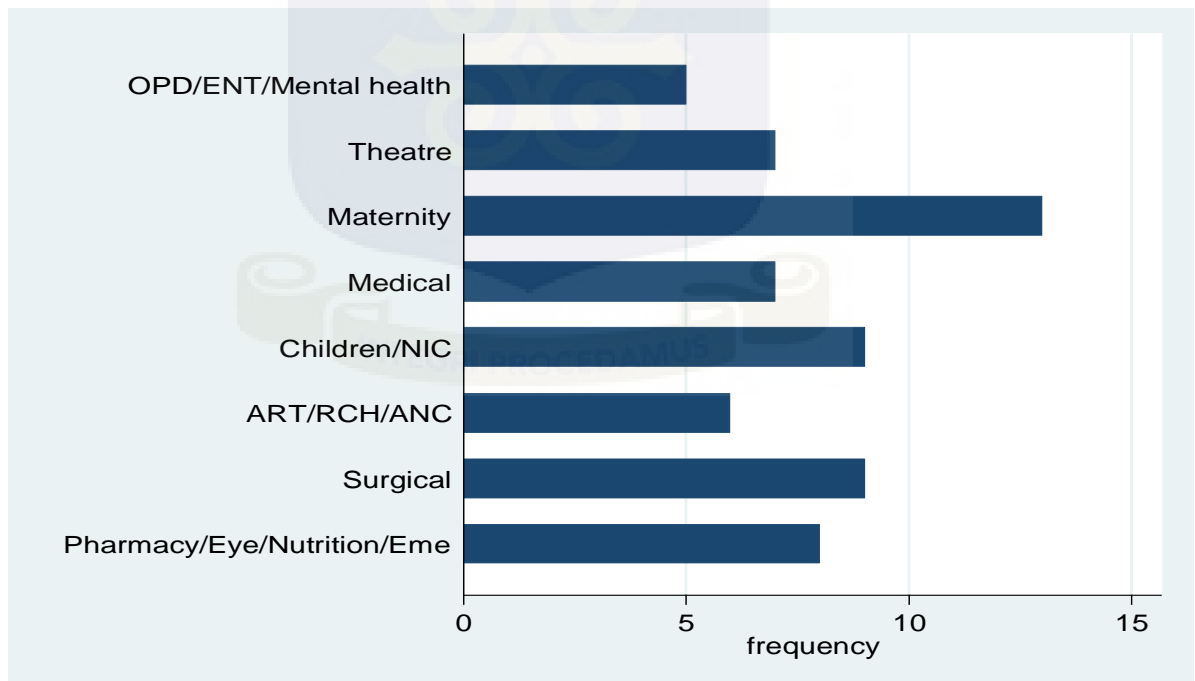


Figure 5: Bar Chart Showing Number of staff with Positive perception in various units

## **Staff-Patient communication**

The clinical staff generally communicated effectively with patients regarding discharge. However, as shown in Figure 5 below, many staff in the four admission wards (maternity, children, surgical and medical wards) communicated more effectively with patients than non-admission units. The high number of staff in the admission wards and the longer period of interaction staff in admission wards had with patients explained this difference.

Furthermore, as shown in Figure 6 below, clinical staff who occupied the junior ranks (Rotation or staff nurses/senior staff nurse) communicated more effectively with patients on discharge than the staff of senior ranks (Nursing officer or principal nursing officers). Specifically, the majority (62%) of the clinical staff who communicated effectively with patients occupied their first rank (Staff Nurse-SN) of professional experience. Rotation nurses were the second largest category of staff who communicated effectively with patients regarding discharge planning. The nurses of senior ranks were fewer than those who occupied junior ranks and were often engaged in supervisory and administrative roles. these differences in roles and numbers account for the small proportions senior staff been engaged in effective communication with patients on discharge.

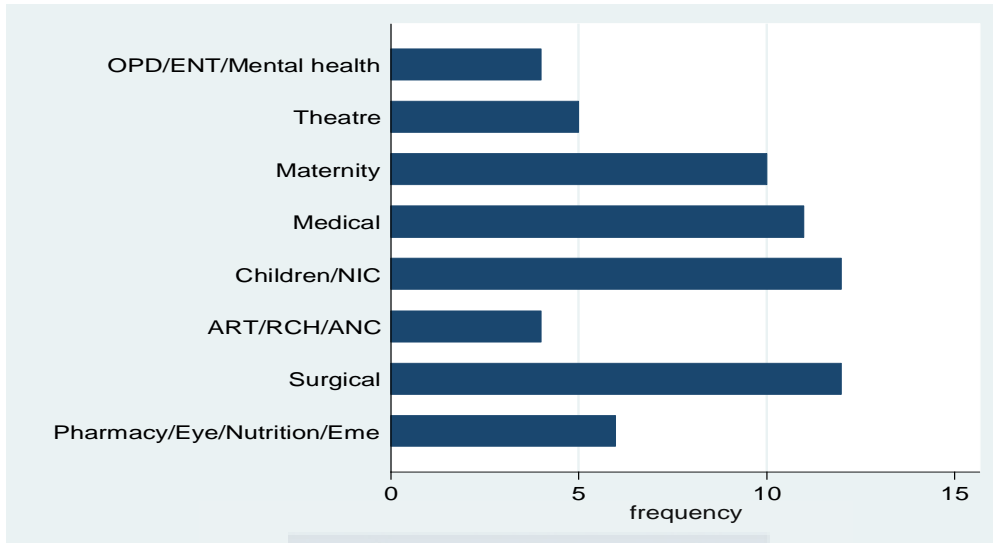


Figure 6: Bar Chart of Staff-patient communication in the various units

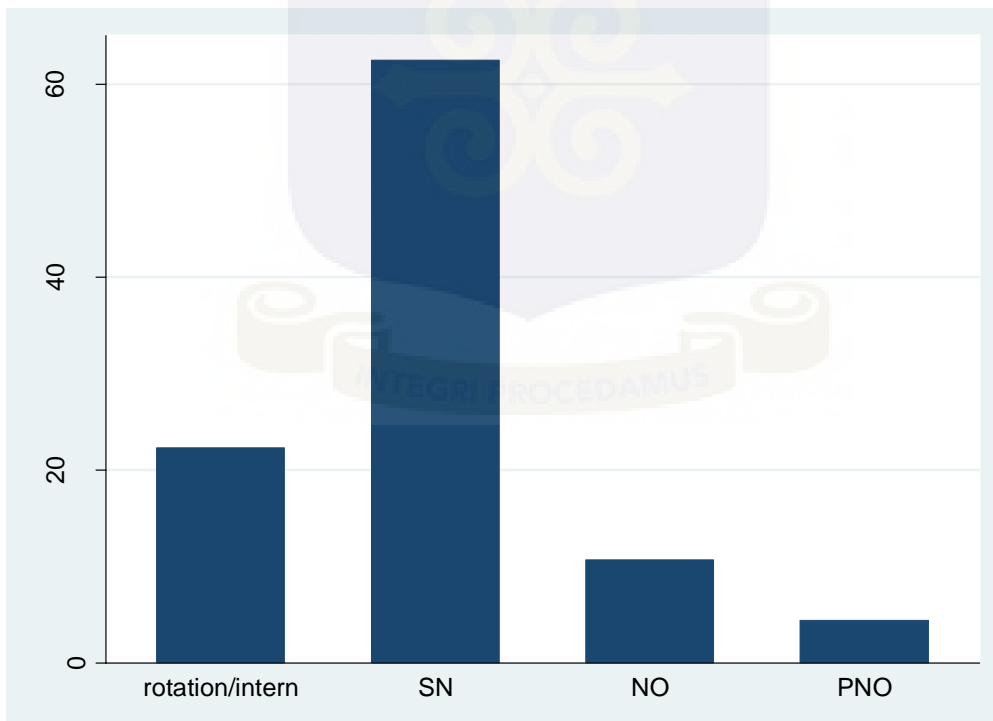


Figure 7: Bar Chart of Percentage staff-patient communication among various ranks

## Discharge Planning Implementation (DPI) Compliance

The mean score of DPI compliance was 6.5 and 57% of the 112-staff surveyed scored above the mean. Although the compliance score was positive in general, compliance varied between male and female staff as well as among the various units. Most (73.4%) of the staff who complied to DPI were females.

Among the units, the maternity ward accounted for much of the hospital's overall DPI compliance score contributing nearly 22% with nearly 88%(14) of the staff in that unit complied to DPI in this study. In contrast, despite the children ward having the highest number of staff, it contributed 12.5% of the hospital's overall DPI compliance and 40%(8) of the staff there complied to DPI in this study. However, only 3% of the hospital's overall DPI compliance was due to the attribution of OPD staff (Figure 7).

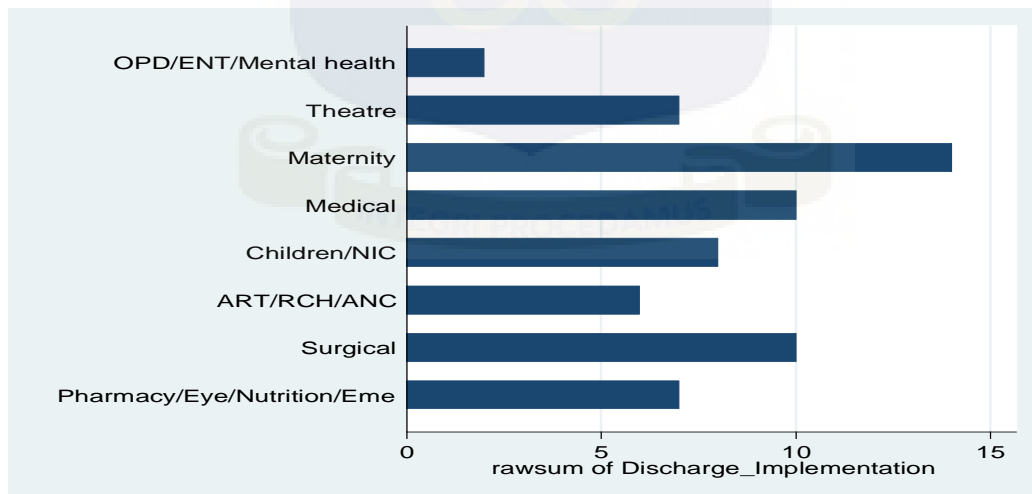


Figure 8: Bar Chart Showing Discharge Planning Implementation Compliance In Various Units

### **4.3 Discharge Practices in MMCH**

#### **Key Activities Identified**

A total of eight (8) key activities (Table 3) were identified as the main things that constitute Discharge Planning Implementation in MMCH. It was also identified that the maternity ward used a ward-based health talk program as a method to give education and instructions to clients while the rest of the wards used standard discharge practice.

Of these key activities identified, most staff (80%) undertook client education than the rest of the activities. While as many as 57% (64) regularly gave clients follow up appointments, 46% (52) of staff routinely prioritized the task of ensuring that clients pay their bills even though billing is not clinical but a business activity. Furthermore, 37% (41) of staff, engaged in both physical preparation tasks such as removing cannula and collecting medications and documentation of client details into administrative records. Moreover, only 31% (35) of staff informed and engaged patients/relatives in discussing discharge and how life at home would be like after discharge. Assessment of anticipated needs was performed by the least number of the staff (3.6%). Finally, it was also identified that less than one-sixth (16%) of the staff gave clients/relatives instructions such as activities and limitations (what the client should do or avoid because of their conditions) and use of medical or supportive devices. This pattern of activity prioritization showed staff engaged more in non-clinical discharge activities than clinical ones and the discharge practiced was rarely planned or rarely planned with patients/relatives included.

Table 3 Key activities identified as discharge practice

Key activity	Frequency	Percent (%)
Client education	90	80
Follow up appointment	64	57
Ensure client pay bills	52	46
Documentation	41	37
Inform and discuss discharge with client/family	35	31
Instructions	18	16
Assessment of post-discharge care needs	4	3.6
Physical preparations	41	37

### Discharge Planning Initiation Day

The majority (54%) of the staff indicated they usually start discharge planning process for patients on the clients' first day in the ward (i.e. day of admission) as required (figure 8). However, 8% and 38% started discharge planning process on a day to discharge and discharge day respectively. The work culture of mainly enacting prescribed orders and attending to complaints of patients coupled with the inadequate staffing led to delay discharge planning initiation in the hospital.

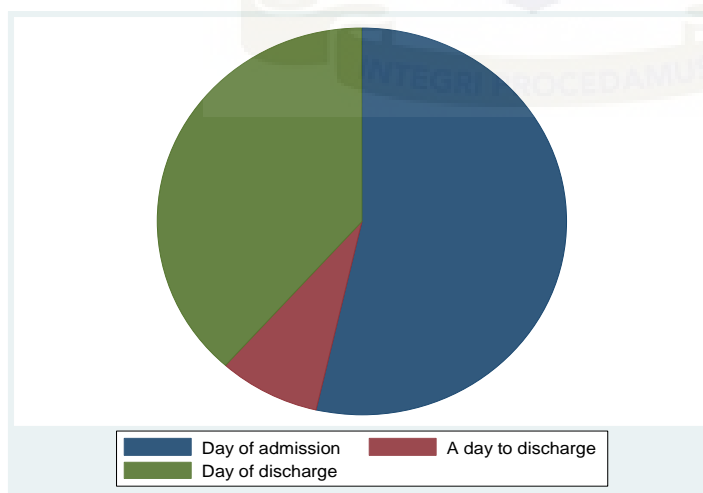


Figure 9: Pie Indicating Discharge Planning Process Initiation Days

#### **4.4 Hospital Factors Associated with Discharge Planning Implementation (DPI) Compliance**

Discharge planning implementation compliance is contingent on several factors within the hospital set up. This study sought to identify such pivotal factors within the complex hospital environment such as the effectiveness of communication between the hospital and primary caregivers to coordinate post-discharge, communication within hospital staff and units, hospital system support for DPI and supervision. In addition, it assessed the effectiveness of communication between staff and patients, assessment of patient anticipated care needs, availability of material for DPI, staff perception about DP, workload and staffing and in-service training on DPI.

Of the 112-clinical staff surveyed, 59% (66) communicated effectively with primary caregivers (PC) in the peripheries of Kpando municipality by sending discharge notes through the patient/relatives. These staff also included a contact person's phone number so as to build a channel for feedback and shared some patient care data such as diagnosis with the PC. Among the 66 staff who communicated effectively with PC, 68% (45) of them equally complied with DPI whereas few (41%) of the 46 staff who did not communicate effectively with PC also complied with DPI. This difference in DPI compliance between these two categories of the staff was statistically significant ( $\chi^2 = 7.80, p=0.01$ ).

Furthermore, 63% (71) of the clinical staff indicated intra-hospital communication and teamwork within the hospital was effective. These staff regularly contacted and gave feedback to other clinicians about patient discharge and demonstrated cooperative teamwork whenever a patient needed multidisciplinary discharge planning activities. Sixty-nine percent (41) of these staff who communicated effectively with other staff and nearly 36% of the staff whose

intra-hospital communication was ineffective implement standard discharge planning for clients whereas everyone else did not. This indicates communicating effectively within the hospital was associated with DPI compliance and the association was statistically significant ( $\chi^2 = 11.16$ ,  $p = < 0.01$ ).

Additionally, seventy-one (71) respondents representing 63% of the clinical staff indicated the hospital system was supportive for DPI and of this number, close to 75% (53) also complied with DPI. The hospital established record system to track communication between the hospital and the primary caregivers (PC) and established feedback documentation as a procedure for all wards. In comparison, only approximately 27 % (11) of the 41 respondents who indicated the hospital system was unsupportive for DPI complied with DPI. A supportive hospital system was associated with DPI compliance ( $\chi^2 = 24.27$ ,  $p = < 0.01$ ).

In the area of supervision on DPI, 59% (66) of the staff indicated that they received effective supervision on DPI. Supervisors of these staff asked for a written or verbal report on DPI. The supervisors of these staff also complimented them whenever a patient was discharged according to standard procedure and did not overlook shortcut discharge practices. The majority, (73%), of the staff who received this kind of supervision routinely complied to DPI. However, only 35% (16) of the 46 staff who were not supervised effectively on discharge practice complied with DPI. Compliance to DPI was associated with effective supervision and this was significant statistically ( $\chi^2 = 15.94$ ,  $p = < 0.01$ ).

On patient home/new location care needs assessment, a total of 60 (54%) of the 112 clinical staff indicated they assessed the anticipated care needs of patients before they leave the hospital. These staff discussed how life at home would be like with clients/relatives and assessed patients anticipated health care needs prior to discharge. Of this proportion of staff

who assessed patient/family needs, 67% (40) complied with DPI while 57% (24) of those who did not assess patient/family needs also complied with DPI. There was an association between a staff assessing a patient's home /new location needs and DPI compliance and this association was statistically significant ( $\chi^2 = 4.79$ ,  $p = 0.03$ ).

Moreover, 57 % (64) of the staff indicated materials for DPI were available. About 69% (44) and 42% (20) of those to whom materials were available and unavailable respectively, complied to DPI. Many of those to whom materials were available complied DPI and few of those who did not have materials also complied to DPI. The difference in DPI compliance between these two groups of staff was statistically significant ( $\chi^2 = 8.22$ ,  $p < 0.01$ ).

Lastly, effective communication between staff and client/relatives was significantly associated with DPI compliance. The majority of the staff who often included clients and family in discussing discharge also complied with DPI than their counterparts who did not discuss discharge with patients/family. As many as 67% (43) of the staff who communicated effectively with their patients also complied with DPI whereas only 42% (21) of those who did not communicate effectively with their patients complied with DPI. There was a difference in DPI compliance between these groups of the staff and the difference was statistically significant ( $\chi^2 = 6.15$ ,  $p = 0.01$ ).

#### **4.4.1 Hospital Determinants of Discharge Planning Implementation(DPI) compliance**

In this study, three (3) out of the seven (7) hospital factors regressed against DPI compliance were determined to have a significant association with DPI compliance (Table 4). The clinical staff who worked in or indicated the hospital system was supportive had more than three and half times odds of complying to DPI than those with unsupportive hospital system after

adjusting for all other hospital factors (AOR =3.57, p=0.02 95%CI:0.20,2.37). Similarly, certain staff communicated effectively with patients (staff-patient communication) than others. After adjusting for all other factors, a staff in the effective staff-patient communication group had more than two and half times odds of complying to DPI than those in the ineffective staff-patient communication group (OR=2.68, p=0.05,95%CI: 1.01,7.12). In comparison to the staff who perceived negatively about the discharge situation in the hospital, staff who perceived positively about discharge had more than two and half times odds of complying to DPI than not complying to DPI (OR=2.63, p=0.05, 95%CI: 1.0, 6.92) after all other hospital factors were adjusted.

Table 4: Hospital Factors that Determined DPI compliance

<b>Factor</b>	<b>AOR</b>	<b>P-value</b>	<b>95 % CI</b>
<b>Hospital-pc communication and coordination</b>			
Uncoordinated	Ref		
Coordinated	1.39	0.52	0.51, 3.78
<b>Intra-hospital communication and teamwork</b>			
Ineffective	Ref		
Effective	1.61	0.4	0.54, 4.83
<b>Hospital system support</b>			
Unsupportive	Ref		
Supportive	3.61	0.02	1.22, 10.65
<b>Supervision</b>			
Ineffective	Ref		
Effective	2.61	0.06	0.97, 7.01
<b>Assessment</b>			
Not Done	Ref		
Done	0.94	0.91	0.34, 2.63
<b>Staff-patient communication</b>			
Ineffective	Ref		
Effective	2.68	0.05	1.01, 7.12
<b>Staff perception</b>			
Negative	Ref		
Positive	2.63	0.05	1.00, 2.92

#### **4.5 Health System Factors Affecting Discharge Planning Implementation (DPI) Compliance**

In this study, a review of all discharge related documents indicated there was no discharge policy in Ghana. However, other documents on discharge (Nurses Job Description) indicated discharge planning implementation was integrated into the core duties of nurses. Furthermore, the N&MC procedure manual indicated discharge planning is a basic service for inpatients and the component task for nurses also showed discharge planning activities include patient education, physical preparation, documentation, follow up appointment and assessment. Although a review of the Ghana Health Service (GHS) patient charter indicated discharge planning was not categorically expressed as patients' right in Ghana, it, however, implied it is right since it is a basic care.

At the Kpando Municipal Health System level, five (5) health system factors -two (2) primary care related and three (3) policy related- were explored. The primary care related factors are the availability of primary caregivers and availability of Community-based Health Planning and Service (CHPS) compounds whereas the discharge policy related factors are the availability of discharge planning (DP) policy, the design of the discharge planning implementation process, and the designation of responsibility for implementing discharge planning. While only the primary care related factors were assessed from the documentary review, all the factors except availability of CHPS compounds were included in the staff survey so as to examine the impact each of these factors on staff compliance to DPI.

Of the 112 clinical staff surveyed, the majority of them, 46% (51), reported the absence of a DP policy as the single most important reason for noncompliance to DPI. In addition, 33% (37) and 21% (24) of the clinical staff attributed DPI noncompliance to non-designation of

responsibility for discharge and the design of the discharge process respectively. This essentially means the absence of a systemwide discharge policy explained 46% of the DPI non-compliance in MMCH. Also, 33% and 24% of the non-compliance was due non-designation of responsibility and the design of the discharge process respectively.

On primary caregivers availability ( primary caregivers staff strength), the municipality had 56 Community Health Nurses (CHN), 1 Public Health Nurse (PHN) and 7 Technical Officers in the frontline of primary care service provision. CHNs are supposed, as part of their duty, to give follow ups to discharged patients at the community level in Ghana. The municipality had CHN-to-population ratio of 1:1,113 and CHPS compound-to-population ratio of 1: 12,464. This CHN-to-population ratio is higher than the national average ratio of 1 to 3 CHNs per 1 CHPS compound per 5,000 population.

With regards to the impact of primary caregiver (PC) availability on DPI compliance, most of the staff, (59%), indicated that PC was availability and as a result, it did not restrict DPI compliance (Figure 9). There was no significant association between discharge planning implementation compliance and primary caregiver availability ( $\chi^2 = 0.97$ ,  $p=0.78$ ). The high CHN-to-population ratio in the municipality explains why the availability of primary caregiver did not restrict staff in MMCH in complying to DPI.

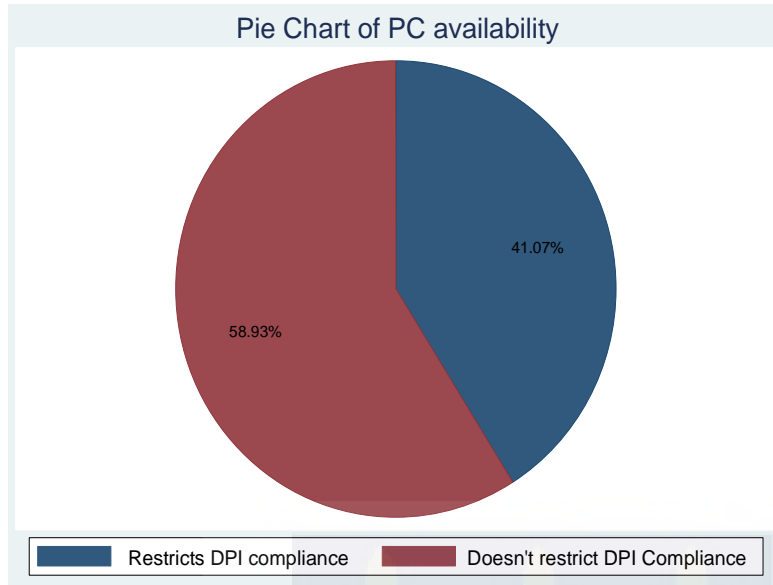


Figure 10: Pie Chart Showing Effect of Primary Caregiver Availability on Discharge Planning Implementation Compliance

With regard to the availability of primary care service facilities, the document review of the municipal health directorate's records indicated Kpando municipality had 2 hospitals, 5 health centers and 7 Community-based Health Planning and Service (CHPS) compounds to provide health services for its 62,317 population. The two hospitals provided inpatient services and admitted 472 patients in every 1,000-outpatient population in 2016. The municipality was divided into 5 sub-districts and 19 CHPS zones with 7 CHPS compounds in 7 communities to provide primary care services to the people. On average, each CHPS zone had a population of about 3,280, a population lower than the national estimate of 5,000 population per a CHPS zone, although urban zones were more populated than rural areas. Each CHPS compound served a community of at least 588 population plus the population of other communities within its catchment area (Figure 10).



Figure 11: Bar Chart Showing Population of Communities with CHPS compounds

#### **4.6 Patient Factors Affecting Discharge Planning Implementation (DPI) Compliance**

##### **4.6.1 Socio-demographic Characteristics of Patients**

The majority, 58.36% (164), of the 281 discharged patient participants lived in rural communities and 70.46% (198) were females (Table 5) and of this number, 74.39% lived in rural areas, too. Nearly 94% (263) of the respondents were adults aged between 18 and 69 years. More than half (56.23%) of the patients/relatives interviewed were married and 40.21% were vocational workers. The majority (48.75%) of the patients were junior/senior high school level educated people. There was at one least (1) primary health care facility in or near the communities of most (61.57%) of the patients. In comparison to the accepted average

of 5km distance clients are expected to travel in order to access primary care, most of the clients (53.02%) needed to travel relatively shorter (less than 5 km) from their respective homes to access primary care service. This implies post discharge services was geographically accessible to the majority of the clients interviewed in this study.



Table 5: Demographic Characteristics of clients

Characteristic	Frequency(%)	Characteristic	Frequency(%)
Age		Educational Level	
18 to 69 years	263 (93.59)	No Education	37 (13)
70years or more	18 (6.41)	Primary/Junior High School	137 (49)
Sex		Senior High School	81 (29)
Male	83 (29.54)	Tertiary	26 (9)
Female	198 (70.46)	Marital Status	
Proximity to a clinic		Married	158 (56)
Less than 5km	149 (53.02)	Single	78 (28)
5 km	46 (16.37)	Widowed	31 (11)
More than 5km	86 (30.6)	Divorce	14 (5)
Area of Residence		Occupation	
Rural	164 (58)	Professionals	18 (6.41)
Urban	117 (42)	Vocational workers	78 (27.76)
		Farmer/Other Manual workers	113 (40.21)
		Student/aged	72 (25.62)

#### 4.6.2 Patient Factors Associated With Discharge Planning Implementation (DPI) Compliance

The patients/relatives were interviewed to collect data on their health literacy level, regard for discharge preparation, willingness to wait for discharge preparation and the difficulty patients/relatives have in understanding the language staff speaks. The number of patients/relatives who received DPI was also assessed.

It was noticed that more than half (56.94%) of the 281 patients/relatives who participated in this study did not receive comprehensive discharge planning implementation (DPI). These patients/relatives could not tell their diagnosis, what medications they were taking home and did not also know what they would do when a problem arises. Of the patient/relative who did

not receive DPI, the majority (66.88%), were not willing to wait up to 30 minutes or more on discharge day to receive discharge preparations and as many as 75.63% (121) also had low health literacy score. In contrast, the clients/relatives who received DPI had a good attitude towards discharge (i.e. they were willing to wait and regarded DP as important) and had high health literacy score as well. However, the proportion of those who did not receive DPI varied across wards. It was highest in the children ward and lowest in the maternity unit. More than half (51.67%) of the patients admitted to the children ward and 21.54%, of the patients admitted to the maternity ward, indicated they not receiving DPI.

Furthermore, as high as 90.75% (255) of the patients/relatives interviewed regarded discharge planning (DP) as important but only 40.93% (115) were willing to wait up to 30 minutes or more on discharge day to receive discharge preparation. Most of the patients/relatives (82.21%) did not have difficulty in understanding the language staff speaks in the hospital and more than half (55.16%) had high health literacy score.

In this study, the Chi square test performed to test for an association between discharge planning implementation compliance and the patient factors. One hundred and fifty-five (155) patients/relatives, representing 55.16% had high health literacy score and of this number, 70% (85) received DPI. In contrast only 30% (36) of those who received DPI had low health literacy score. Receiving DPI was significantly associated with high health literacy score ( $\chi^2=4.15$ ,  $p=0.04$ ).

On willingness to wait, only 40.93% (115) of the clients/relatives were willing to wait up to 30 minutes or more and of this number majority (62%) received DPI also. In comparison, 34% of those who were unwilling to wait received DPI. There was an association between receiving DPI and willingness to wait and the association was significant ( $\chi^2=9.35$ ,  $p<0.01$ ).

The majority, 90.75% (255), of the patients regarded DP as important and of this number 56.47% (144) received DPI. However, 42.30% (11) of the patients who did not regard DPI as important received DPI. Receiving DPI was also significantly associated with the patient/family's regard for discharge planning (DP) ( $\chi^2=9.35$ ,  $p<0.01$ ).

The ward the patient/family were admitted was also significantly associated with DPI ( $\chi^2=9.08$ ,  $p=0.03$ ). Although receiving DPI was not significantly associated with any socio-demography characteristic in this study, many urban residents (49.57%) received DPI as compared to 38.41% of the patients/relatives who lived in rural areas.



## **CHAPTER FIVE**

### **DISCUSSION**

With the unit of analysis of this study being the discharge planning (DP) policy in the health system of Ghana, this section discusses results on the discharge practices in place in Margaret Marquart Catholic Hospital (MMCH), discharge planning implementation (DPI) compliance and factors associated with DPI compliance from all possible sources (health system, hospital and patient). It also discusses the link between clinical practice at the ward level and policy and how these two factors interplay to affect the health of the population.

#### **5.1 Discharge practices in place in the hospital**

The findings of this study suggest discharge activities in the hospital are in congruence with the activities outlined in component task of the Nursing and Midwifery Council (N&MC) of Ghana as discharge procedure, albeit to a certain degree. Despite the majority of patients/relatives were given information on their medications, staff downgraded crucial activities intended to enable patients/relatives enact self-care at home such as giving the patient/relatives instructions on what to do or avoid because of one's condition (activity and limitations). Similarly, activities intended to identify patient/family anticipated self-care needs such as assessment of home care needs were not prioritized during discharge planning implementation.

One possibility for these results, as identified by Ledesma-Delgado in 2009, is that assessment of a patient's needs and their condition is based on medical treatment and perception of discomfort. Assessment of patients is often not systematic and detailed and medical treatment directs what activities are to be performed. In addition, previous studies on the nursing

process and discharge planning stated that the educational reformation staff received during professional training can influence their attitude towards the nursing process (Bell, et al., 2016; Ledesma-delgado, 2009). This might be a predictive factor for the above findings of present study since discharge planning implementation follows the nursing process. Again, it might be explained that the Ghanaian training style, probably, orient staff to the notion that care is provided by professionals and as a result staff does not regard self-care. This orientation might explain why staff did not prioritize home care needs assessment and instructions. Alternatively, it has been made known that supervision and management can determine what tasks are prioritized in clinical settings. This means management and supervision might contribute to the relegation of instructions and home care needs assessment to less important activities by staff of MMCH as found in the present study (White, 2017; Press, et al., 2016).

Somewhat surprisingly, but as found in the study of Chan, et al., 2015, in this study staff attached much attention to nonclinical activities such as ensuring that clients pay bills, removing cannulas and documentation than clinical discharge activities such as assessment since the former are necessary to the staff and to the patient. This finding matches with the findings of Pompeo, et al., 2007, that nurses dedicate themselves more to administrative activities than clinical care activities (Pompeo, et al., 2007). However, different studies have found that nurses preferred the medical model, where they concentrated on carrying out advanced procedures, to the care model where the staff was engaged in care activities such as physical preparation and documentation (Chang, et al., 2015; Olaogun, et al., 2011).

Another finding of present study is that there was a gap between the practice of discharge (i.e. preparing the patient to go home) and planning for the discharge.

This finding was also reported in the study of Chan, et al., 2015. Depending on the findings of Jooste, et al., 2010 that majority of nurses do not appreciate the need for nursing process, it could be explained that staff in this study thought they could implement discharge preparation without planning it. An additional explanation to this finding is based on the findings Lima, et al., 2009 that institutional structures affect nurses compliance to the nursing process. It can be explained that a hospital discharge culture where management pays no attention to discharge planning practice and standard of discharge planning execution is based on the circumstance at the time does not enforce discharge planning implementation compliance (Chang et al., 2015; Jooste, et al., 2010;). An alternative explanation could also depend on studies that have established that staff are likely to compromise compliances with standards when faced with a heavy workload or lack of time (Emanuel, et al., 2008; Mahmoud, et al., 2014). When there are many patients for less staff to handle, staff tend to concentrate on finishing the work rather adhering to procedures, especially if the procedure is less likely to harm the patient immediately thus under-staffing and heavy workload in the hospital does not enable planning of discharge.

On discharge planning implementation (DPI) compliance, close to half of the staff (43%) did not comply with DPI and more than half of the patients (56.9%) did not receive DPI. These findings are similar to the findings of Pompeo, et al., 2007, in which it was found that the majority of the clients expressed poor comprehension of instructions after discharge and many nurses did not implement discharge preparation. The Same study found that nurses dedicated more time for bureaucratic administrative activities such as documentation more than clinical care. The staff in this study, were more dedicated to other activities than giving clients comprehensive discharge preparation.

However, other studies found that staff noncompliance to DPI is due to patients negative behaviour towards discharge, unavailability of social support services, lack of time and workload (Chang, et al., 2015; Mahmoud, et al., 2014; Wong, et al., 2011) In contrast to large proportion of staff not complying to DPI in this study, Jack, et al., 2009, found that majority of staff complied with DPI.

## **5.2 Factors Associated with Discharge Planning Implementation (DPI) Compliance**

In the present study, staff compliance to implement discharge planning (DP) was contingent on supportive hospital system, effective staff-patient communication and positive staff perception of discharge as hospital factors. Evidence from this study also indicate the likelihood of staff complying to implement DP may increase by more than two and half times in the presence of each of the above factors. For example, the majority (88%) of the staff in one ward (maternity ward) complied with DPI when the DP activities were simplified, sorted and assigned to individual staff as part of their schedule for a shift (i.e. supportive hospital system).

These findings are in line the results from the study of Mahmoud, et al., 2014, in which it was found that institutional structures supported the implementation of the nursing process. Similarly, these findings tally with the findings that staff perception and experience influence the nursing process. A supportive system facilitates execution of the nursing process by limiting the volume of activities and ensuring that materials for the task are available. A supportive hospital also ensures the nursing process is less complex and less time-consuming. Since DPI takes the nursing process, staff best comply with it in settings where the hospital systems and procedures guiding the routine activities of the staff are supportive(Mahmoud, et al., 2014).

In contrast, Jack, et al., 2009, found that a staff designated for discharge working with a pharmacist improves discharge compliance and not supportive hospital system (Jack, et al., 2009).

On the health system factors, findings of this study indicate that absence of a system-wide discharge policy was rated among staff as the number one health system factor driving DPI noncompliance followed by non-designation of responsibility and the cumbersome nature of the components of discharge planning activities. The above findings are consistent with the findings of Wong, et al., 2011, in which it was found that absence of a system-wide approach was a barrier to discharge practices. This can be explained as it is the health system which determines what service must be provided to patients, decides performances staff are rewarded for and builds in mechanisms to ensure those activities are carried out. Currently, there is no system-wide policy to drive DPI compliance and discharge practices are not standardized in Ghana. Additional explanation is, unlike other services that are clearly defined as in-patient or out-patient services, discharge is blurred with inpatient service while it is a transitional service, although it starts in the ward (Forster, et al., 2003; Chang et al., 2015; Jack et al., 2009; Wong, et al., 2011). However, other studies have revealed that few hospital beds and increasing cost of healthcare are rated as the top health system factors that affect DPI compliance and not the absence of a discharge policy (Greenwald, et al., 2007; Hansen, et al., 2013; Waring, et al., 2014; Wong, et al., 2011). This disparity in the findings of present study and Wong, et al., 2011 study might be due to the existence of discharge policies in the settings of the latter studies.

Even though the availability of primary caregiver in a patient's community was not significantly associated with discharge planning implementation compliance in the present

study, other studies have indicated it does (Bell, et al., 2016; Waring, et al., 2014). The Ministry of Health (MoH), of Ghana, CHPS implementation policy requires community health nurses to give follow up to discharged patients (MoH, 2016). An effective follow up of patients may help as counter-check to improve hospital staff compliance of discharge planning implementation. The insignificant association between discharge planning implementation compliance and availability of primary caregivers in this study is due to the high Community Health Nurse (CHN) to population ratio in the municipality. The high CHN to population ratio means primary health care may be accessible to all or the majority.

Regarding patient factors, evidence from this study suggests a patient/relative's health literacy determined their understanding of discharge education /instructions and affect staff compliances to DPI. This study also found that majority of the clients who were willing to wait up to 30 minutes or more and those regard discharge preparation as important received DPI than those who did no. These findings match with the findings of previous researchers who found that negative patient behavior is associated with staff failing to implement discharge planning for the clients (Chang, et al., 2015; Waring, et al., 2014). Based on these previous researches, it could be explained that staff were unable to comply with DPI because, sometimes, patients/family do not regard discharge as important and as a result patients/family do pay attention to discharge discussions. Sometimes, too, staff are unable to implement discharge because even if everything is satisfactory on staff's part, patient/relatives do not want to wait. Additionally, the finding that health literacy affects clients' understanding is identical with the result of Wong, et al., (2011) in which it was found that staff were doing their best but patients did not just understand much about their medications and condition.

Nonetheless, other studies have reported patients had adequate health literacy and behaved properly towards discharge preparation by cooperating well with staff. It can be explained from these studies that patients' language deficiencies, physical limitations such as pain and emotional challenges such as stress and anxiety resulting from illness often led to inadequate comprehension of instructions and not their negative attitude towards discharge or low health literacy. It also explainable from these studies that patients poor comprehension of what is taught indicates an unmet learning needs or the nurses gave instructions at a time patient and family were less active to learn ( Dharmarajan, et al., 2013; Kansagara, 2015; Maloney & Weiss, 2008).

### **5.3 Limitations of The Study**

The study did not also explore the possibility of social factors influencing DPI compliance and was conducted in only a single hospital. This limits the generalizability of the findings. It is also important to recognize that temporality of the results is an inherent limitation of the cross sectional study design used. Therefore a replication of similar study at a different time may not yield same results as the current study.

## CHAPTER SIX

### CONCLUSION AND RECOMMENDATION

The findings from this study suggest that hospital system support influences discharge planning implementation compliance more than any other hospital factor. Discharge planning implementation (DPI) compliance also depends on staff perception and staff-patient communication as additional hospital factors. These findings indicate providing material resources, simplifying, sorting discharge planning (DP) activities into more granular activities and assigning these activities to individual staff as part of their daily schedule (i.e. a supportive hospital system) will increase the likelihood of staff complying to DPI by more than three and a half folds. The findings also show that creating a perception that DPI is a priority to management (i.e. positive staff perception) and establish a procedure requiring staff to communicate regularly about discharge preparation with patients (i.e. effective staff-patient communication) will boost DPI compliance.

Additionally, the data elucidated the absence of a discharge policy and non-designation of the responsibility of discharge to an officer hinder DPI compliance. It highlights the need for a policy directive to enable the tightly regulated professionals in the health sector to act autonomously in sector every step is regulated and professional dominance is common. This study also found that many patients/relatives regard discharge as important but few are willing to wait long enough for discharge preparation on discharge day, therefore, enforcing early initiation of discharge planning will decrease the challenges patient/family imposes on DPI compliance.

## **6.1 Recommendations**

### **Ghana Health Service**

Based on the findings from this study, it is recommended for the Ghana health service to have a clear discharge policy and guidelines for discharge implementation. The data suggest it is recommended for the responsibility of implementing discharge preparation to be designated to an officer in-charge for it.

Discharge planning is not just a group of nursing activities. It is a service by itself - a service patient needs at home or a new location to continue care correctly. Therefore, effective discharge planning implementation may offer a triple track strategy contributing to the health system's struggle to achieve universal health care in the near future by reducing the cost of healthcare to the system, reducing facility utilization and overall improving the health of the population.

### **Hospital managers**

In the light of the findings of this study, hospitals management needs to demonstrate that discharge practice is a priority to them in order to increase staff compliance. This can be done by providing material resources, for example by including discharge planning sheets in folders, and assessing and rewarding discharge planning implementation compliance.

Given that staff compliance to discharge planning implementation is increased, hospitals might avert the cost and pressure associated with readmissions and frequent utilization of service that accompany poor discharge practices and earn recognition for providing quality services. A hospital that is able to achieve these would create the name of excellence for

themselves and that may offer a strategic advantage for those hospitals to get large enrollment of clients when capitation is adopted nationwide.

### **Further research**

Given that this study was conducted in a single facility, further research is needed to provide more evidence on staff compliance to DPI in several Ghanaian hospitals. Such research will also provide strong evidence for the need for a redesign of the discharge system in Ghana. These studies will provide knowledge on DP and hence policies can be made to improve clinical practices.



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## APPENDICES

### Appendix 1: Hospital Survey on Provider factors

#### Instructions

This survey asks for your opinions about discharge planning issues and factors affecting clinical staff commitment/ability to implement discharge planning for patients in your hospital and will take about 20 to 25 minutes of your time.

If you do not wish to answer a question, or if a question does not apply to you, you may leave your answer blank.

- A “**discharge**” is defined as allow patient to go home because a clinician has deemed him/her fit to go.
- “**Discharge planning**” is defined as set of active steps deliberately taken prior to discharge to prepare a patient/family, depending on their needs, to continue care at home and to meet his/her healthcare need after discharge. Example, prepare a patient to continue wound care at home to prevent infection.

#### Your Background Information

1. Age .....
2. Sex.....
3. Profession .....
4. Rank.....
5. How long have worked in this hospital? .....
7. Which unit of this hospital do you work currently? .....
6. How long have you worked in your current unit?.....
8. How many units/wards have you ever worked in this hospital.....

**Typically, how many hours per week do you work in this hospital?**

- a. Less than 20 hours per week       d. 60 to 79 hours per week  
 b. 20 to 39 hours per week       e. 80 to 99 hours per week  
 c. 40 to 59 hours per week       f. 100 hours per week or more

**SECTION A: Your Work Area/Unit**

**In this survey, think of your “unit” as the work area, department, or clinical area of the hospital where you spend most of your work time or provide most of your clinical services.**

**Please indicate your agreement or disagreement with the following statements about your work area/unit.**

<b>Think about your hospital work area/unit...</b>	<b>Strong ly Disagr ee ▼</b>	<b>Disagr ee ▼</b>	<b>Neith er ▼</b>	<b>Agre e ▼</b>	<b>Stron gly Agree ▼</b>
1. When writing discharge notes for patients we include a contact person’s phone number for feedback communications .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. We have enough staff to handle the workload here .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. When planning discharge for a patient, we include other clinicians beside the attending physician as a team to get the work done.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. When discussing discharge planning with patient/family we speak plain language patients/family best understand.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Staff in this unit work longer hours than is best for patient care.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Even if everything is ok on staff’s part, patients/family seem not to regard discharge planning as important.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

7. We write notes for patients who need continuity of care at their nearest clinic after discharge..... 1 2 3 4 5
8. Generally, discharge planning is a neglected issue ... 1 2 3 4 5
9. We start discharge planning in advance before discharge day..... 1 2 3 4 5
10. The way we practice discharge planning in this unit is different from how it is done in other units of this hospital 1 2 3 4 5

**SECTION A: Your Work Area/Unit (continued)**

- | Think about your hospital work area/unit...  | Strongly Disagree<br>▼     | Disagree<br>▼              | Neither<br>▼               | Agree<br>▼                 | Strongly Agree<br>▼        |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 11. We are actively doing things to improve discharge planning .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 12. We are able to get a primary caregiver to continue post discharge care whenever a patient needs it .....                                       | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 13. In this unit, we include patient/family in discharge planning .....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 14. We get feedback from the primary caregivers who receive our patient to continue post discharge care .....                                      | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 15. It is our culture here to listen to patient/family when discussing discharge planning .....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 16. We share critical patient care data such as diagnosis, test results and medications with the primary caregiver to continue post discharge care | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 17. People speak slowly when preparing a patient for discharge .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

- |  |                            |                            |                            |                            |                            |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 18. Patients are given follow up appointment   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 19. We work in "crisis mode" trying to do too much, too quickly here .....                         | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 20. Patient discharge planning is never sacrificed to get more work done .....                     | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 21. Here, discharge is just a matter of removing cannula and entering patient details in book..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 22. Discharge planning does concern us here.....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 23 We have discharge problems in this unit .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 24. Our procedures and systems are good at ensuring that discharge planning is implemented .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

**SECTION B: SUPERVISION**

**Please indicate your agreement or disagreement with the following statements about your immediate supervisor/manager or person to whom you directly report.**

- |  | Strongly<br>Disagree<br>▼  | Disagree<br>▼              | Neither<br>▼               | Agree<br>▼                 | Strongly<br>Agree<br>▼     |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1. My supervisor/manager says a good word when he/she sees a job done according to established patient discharge planning procedures ..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 2. My supervisor/manager ask for verbal/written report on discharge planning at least 3 times a week.....                                  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 3. My supervisor does not say a word if we do shortcut discharge.....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

**SECTION C: Communications**

**How often do the following things happen in your work area/unit?**

	<b>Never</b>	<b>Rarely</b>	<b>Some- times</b>	<b>Most of the time</b>	<b>Always</b>
<b>Think about your hospital work area/unit...</b>	▼	▼	▼	▼	▼
1. Staff receive training on discharge planning at least once a year.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Staff communicate effectively to each other in this unit	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. We are given feedback from other clinicians when we contact them about discharge .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Staff comply with standard discharge planning procedures here.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. We use “teach-me-what-I-taught-you” method to educate patients .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Patients feel free to question the decisions or actions of staff preparing them for discharge .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. In this unit, we discuss with patient/family how life will be like at home .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. In a week, my supervisor asks for verbal/written report on discharge .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. We are willing to implement discharge planning but patient/family won’t wait .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. Patients’ language/culture hinder discharge planning implementation.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. Unavailability of primary caregiver in patients’ community restrict discharge planning implementation.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

12, Materials (stationery) needed for discharge planning are available..... 1 2 3 4 5

**SECTION D: Your Hospital**

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>Think about your hospital...</b>	▼	▼	▼	▼	▼
1. Every patient receives discharge planning as it supposed to be .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. We assess patients for anticipated needs at home before discharge	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. communication between units/wards is effective .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Staff and patients communicate effectively .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**Section E: General Issues about Discharge** (Please provide only one answer to each question)

1. If discharge planning is not implemented according to standard procedures, consider all factors possible including those beyond the control of your hospital management, what single most important reason will give?

- a) It is not important.....
- b) There is no clear policy about discharge...
- c) It is not clear what exactly discharge planning is.....
- d) No one is actually responsible for discharge.....

Another reason apart from those above (only one)? .....

2. When a patient is admitted, when do you start discharge planning here?.....

3. What are the key things people do when discharging a patient in this ward/ hospital?

- .....
- .....
- .....
- .....
- .....

**SECTION: Discharge Planning Grade**

**Please give your work area/unit in this hospital an overall grade on discharge planning.**

- |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>A</b>                 | <b>B</b>                 | <b>C</b>                 | <b>D</b>                 | <b>E</b>                 |
| Excellent                | Very Good                | Acceptable               | Poor                     | Failing                  |

**SECTION I: Your Comments**

**Please feel free to write any comments about discharge situation in your hospital**

***THANK YOU FOR COMPLETING THIS SURVEY***

APPENDIX 2

CLIENT/FAMILY QUESTIONNAIRE

INSTRUCTIONS

This questionnaire asks for your opinions about patient/family issues that affects clinical staff in Margaret Marquart Catholic Hospital (MMCH) commitment to implement discharge planning and will take about 5 to 10 minutes of your time.

Please leave your answer blank if a question does not apply to you or you wish not to answer.

- "Discharge planning" is defined as set of active steps deliberately taken prior to discharge to prepare a patient/family, depending on their needs, to continue care at home and to meet his/her healthcare need after discharge. Example, prepare a patient to continue wound care at home to prevent infection.
• "Care" is activities you do or someone does for you to promote your health or alleviate suffering related to illness. Example, taking/giving medication, dressing a wound.

SECTION A. YOUR BACKGROUND INFORMATION

- 1. Age ..... 2. Sex..... 3. Area of residence: ..... rural [ ] urban [ ]
4. What is the average distance from your house to the nearest health facility?.....
5. What is the regular work you do for living? .....
6. What is your highest level of education?
None ... [ ] primary .... [ ] Secondary school... [ ] Tertiary ... [ ]
7. Marital status...Married [ ] Single [ ] Widowed [ ] Divorced [ ]

8. Which part of your body really worried you most and made to get admitted (only one part)?

.....

**SECTION B: Please indicate your agreement or disagreement with the following statements** about yourself, community and your experiences during admissions in MMCH

Think about your understanding of things said below	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither</b>	<b>Agree</b>	<b>Strongly Agree</b>
1. I knew my condition before this admission.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. The nurses/doctors gave me instructions on what to do or avoid because of my condition .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. The nurses/doctors told me my diagnosis .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I would have asked the nurses/doctors if they had not told me my condition .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. The nurse/doctor gave a note for post discharge care.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. As I am going home I know what to do when a problem arises.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. Excluding spiritual matters, I know the cause of my disease.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. I believe the disease I have now is not anything serious.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. I don't really mind to know what causes my disease; knowing it makes no difference.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I do have difficulty understanding the language the nurses/doctor speak.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. To me, it is important to continue treatment after discharge.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. There is a clinic with health worker (s) in or near my community	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

13. The nurses/ doctors talk slowly when explaining things to me .....1    2    3    4    5
14. I have been asked to continue care at the nearest clinic in my community.....    1    2    3    4    5
15. I am satisfied with the manner the nurses/doctors handled me during my hospital stay.....    1    2    3    4    5
16. I think the nurses/doctors prepared me to continue care at Home.....    1    2    3    4    5

17	How do you regard discharge preparation?	Very important..... <input type="checkbox"/> Important..... <input type="checkbox"/> Neither..... <input type="checkbox"/> Unimportant..... <input type="checkbox"/> Absolutely unimportant..... <input type="checkbox"/>
18	What is the urgency with which you prefer to leave the hospital if all left for you to wait for is discharge preparation?	immediately..... <input type="checkbox"/> Within 15 minutes..... <input type="checkbox"/> Within 30 ..... <input type="checkbox"/> More than 30 minutes ..... <input type="checkbox"/>
19	How likely are you to recommend the ward you were admitted to a friend/relative who needs the same treatment?	Very likely ..... <input type="checkbox"/> Likely ..... <input type="checkbox"/> Undecided..... <input type="checkbox"/> Unlikely ..... <input type="checkbox"/> Very unlikely ..... <input type="checkbox"/>

**GENERAL Issues (Indicate Your Opinion but Give Only One Answer to this**

**Question)**

20. Consider all possible reasons. If the nurses/doctors did not prepare you for discharge, what single most important reason would give for this?

.....

### APPENDIX 3

#### DATA EXTRACTION TOOL

1. Ghana Health Service discharge policy document: Available...   
Unavailable.....
2. Essential contents of discharge policy: .....
3. Ghana Health Service patient charter expression of discharge planning as a patient right:.....
4. Key activities nurses are expected to do as discharge planning implementation:.....
5. Health profile of Kpando municipality:
  - a. Municipal Demarcation and coordinates.....
  - b. Population size.....
  - c. Population of each demarcated community.....
  - d. Number of Health facilities in municipality.....
  - e. Municipal annual admission rate.....
  - f. Number of Community-based Health Planning and Service (CHPS) zones..... Compounds.....
  - g. Number of communities a CHPS zone/compound serves .....
  - h. Municipal primary healthcare provider staff strength.....

## APPENDIX 4

### INFORMATION LEAFLET FOR PARTICIPANTS

#### **RESEARCH TOPIC: Assessment of Provider Compliance to Implementation of Discharge Planning in Margaret Marquart Catholic Hospital**

##### Background information

I am a student in the School of public health, College of Health Sciences of the University of Ghana and pursuing a master in public health. My assistants and I are carrying out a study to find out the factors that affect providers' compliance to implementing discharge planning for patients in Margaret Maquart Catholic Hospital, Kpando.

I would be very happy to invite you to participate in the study. I would be grateful if you could kindly read this leaflet or we will explain its contents to you so that you can decide whether to take part in the study or not.

##### **PURPOSE OF THE STUDY**

The purpose of this study is determine the various factors that hamper clinical staff's compliance to implementing comprehensive discharge planning for patients as required.

##### **STUDY PROCEDURE, BENEFITS AND COSTS**

Participation in this research will involve answering a questionnaire which will last about 10 and 20 minutes for discharged patients and clinical staff respectively at the Margaret Marquart Catholic Hospital.

**On the part of discharged patients**, information that will be required from you will include your demographic data, experience of how discharge preparations are like in MMCH, language, attitude towards discharge planning and any addictions.

**On the part of the clinical staff**, the information that will be asked from you include the routine discharge planning process practised in Margaret Marquart Catholic Hospital, staffing

level, communication about discharge, supervision, availability resources for discharge planning and other factors identified by you.

The information will be useful in improving clinical practice, specifically discharge planning. This will help to improve the health and safety of patients in transition; those moving from the hospital to home or another care facility to continue care. There are no financial costs involved on your part in participating in this research. The study will not affect whatsoever the kind of care you receive. In accepting to take part in this study the discomforts that you may have are mainly the time taken to answer the questions and the inconvenience in answering some of the questions which may be personal. If you decide to participate in this study, you will not have to answer every question, and you may withdraw whenever you wish.

### **CONFIDENTIALITY**

The research team guarantee that all information obtained will be kept in the strictest confidence.

Your name and identity are not needed for the study. The information you would provide however is going to be identified by a special code number assigned to each questionnaire and would be treated strictly as confidential. You are assured that your name shall not appear or be mentioned in any report that may come out as a result of this study. This study has been reviewed and approved by the Ethical clearance will be sought from the Ghana Health Service Ethical Review Committee as required to conduct a study in any health facility in Ghana. Permission has been sought from the Kpando Municipal Health Directorate and from the management of the Magaret Marquart Catholic Hospital.

If you have any questions or concerns, we will be happy to address them.

You may contact the principal investigator:

Mr. Asambo Stephen Azari

Presbyterian Hospital,

Box 45.

Bawku,

Email: [asambostephenazari@yahoo.com](mailto:asambostephenazari@yahoo.com).

Cell phone: +233248296074

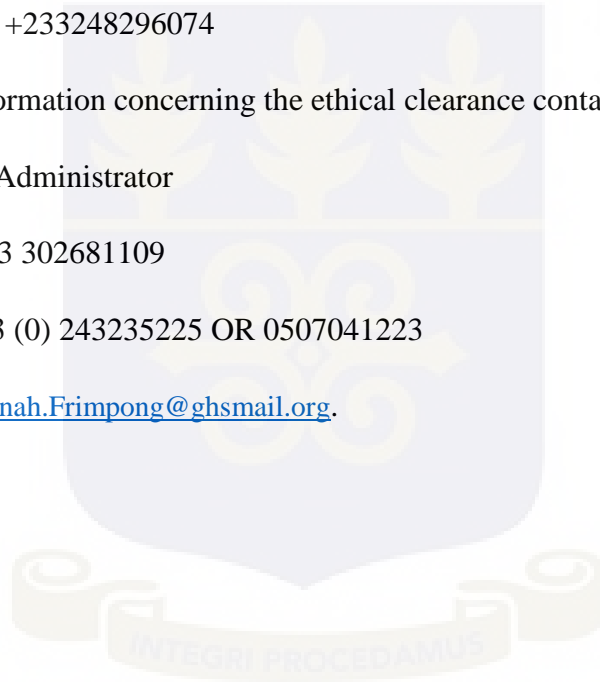
For any information concerning the ethical clearance contact

GHS-ERC Administrator

Office: +233 302681109

Mobile: 233 (0) 243235225 OR 0507041223

Email : [Hannah.Frimpong@ghsmail.org](mailto:Hannah.Frimpong@ghsmail.org).



## PARTICIPANT'S CONSENT FORM

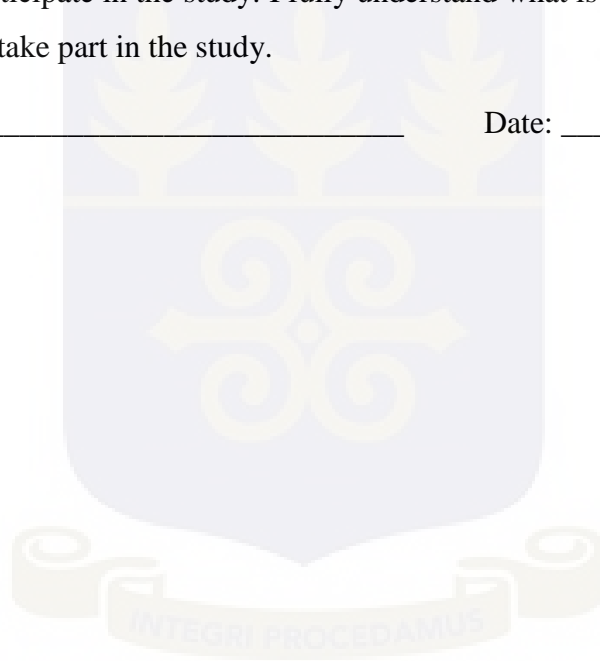
I have explained fully to the subject the nature and purpose of the study and risk involved in its performance. I have addressed to the best of my knowledge all questions related to the study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

I \_\_\_\_\_ have read the above information/ the information has been read to me or translated to me and I have fully understood it.

My concerns have been fully addressed. My signature/thumb print below indicates that I agree to participate in the study. I fully understand what is going to be done and I agree to voluntarily take part in the study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_




## APPENDIX 5

### ETHICAL APPROVAL

**GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE**

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

My Ref. GHS/RDD/ERC/Admin/App/17/2016  
Your Ref. No.

  
Your Health. Our Concern

Research & Development Division  
Ghana Health Service  
P. O. Box MB 190  
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Email: ghserc@gmail.com

Asambo Stephen Azari  
School of Public Health  
University of the Ghana  
Legon

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

GHS-ERC Number	<b>GHS-ERC: 20/12/2016</b>
Project Title	Assessment of Provider Compliance to Discharge Planning in Margaret Catholic Hospital (MMCH), Kpando
Approval Date	14 <sup>th</sup> March, 2017
Expiry Date	13 <sup>th</sup> March, 2018
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.....  
DR. CYNTHIA BANNERMAN  
(GHS-ERC CHAIRPERSON)

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