# Assessment of Discharge Planning Process and Quality of Care in the Emergency Department of Tamale Teaching Hospital

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### Abstract

Discharge planning is the transition of patient care from the hospital setting to home, primary care provider or the community and effective discharge planning is crucial in enhancing patient recovery as it is an integral part of patient care. Poor implementation of discharge planning is associated with varying consequences for both the individual patient/family and the health system as a whole. Again, there is the challenge of the general public's perception of a dwindling standard of care by nurses and the general lowering of standards in Ghana. This study, therefore, sought to assess the discharge planning process and quality of care in the Emergency Department (ED) of Tamale Teaching Hospital (TTH). With a cross-sectional study design, 370 discharged patients were selected from the emergency department using a consecutive sampling technique. The Statistical Package for Social Sciences (SPSS), was used to analyse the data. Descriptive results took the form of frequencies, percentage distribution, means and, standard deviations and presented in tables and figures. A bivariate Pearson correlation analysis was also done to establish the relationship between structure, discharge planning and quality of care. The findings from the study revealed a good practice of the discharge planning process (26.46, SD = 3.41) and high quality of care (57.26, SD = 8.30). There was also a statistically significant positive relationship between discharge planning and quality of care and the same was established between the structure of the ED and quality of care. These findings imply a good implementation of the discharge planning process and

demonstrate that the public outcry about the poor quality of nursing care in Ghana is a mere perception but not a reality. There is, therefore, the need for a sensitization programme to educate the general public on what constitutes the quality of care in our healthcare delivery system.

Keywords: Discharge, Planning, Quality, Care, Patient, Carer, Emergency

### Introduction

The concept of discharge planning is a key component of healthcare delivery and borders on the quality of care patients receive. Discharge planning is an interdisciplinary approach to continuity of care and involves a process that includes identification, assessment, goal setting, planning, implementation, coordination, and evaluation (Lin, Cheng, Shih, Chu, & Tjung, 2012). According to Wells, LeClerc, Craig, Martin, and Marshall (2016), it is the quality link between hospitals, community-based services, nongovernment organisations, and caregivers. As one of the several methods of implementing transitional care, discharge planning 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 (Nordmark, Zingmark, & Lindberg, 2016; Wallace, Smith, Fahey, & Roland, 2016). 2016).

Globally, discharge practice has gained much attention as available literature suggests that more than one in five patients discharged experienced an adverse outcome related to their medical care (Forster et al., 2004) (Forster, Clark, Menard, Dupuis, Chernish, Chandok, Khan and Walraven. 2004). Gholizadeh, Delgoshaei, Gorji, Torani, and Janati (2016) posits that discharge planning does not only improve the quality of life in patients but also their families, hence the need for family involvement in the discharge planning process.

Despite this evidence, a review of the literature indicates that most hospitals often discharge patients with insufficient planning, poor instruction, inadequate information, lack of coordination among members of the healthcare team, and poor communication between the hospital and community (Gonçalves-Bradley, Lannin, Clemson, Cameron, & Shepperd, 2016). A survey conducted in eleven countries of patients with complex care needs found that a good percentage of the patients in Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States reported gaps in discharge planning (Schoen, Osborn, Squires, Doty, Pierson, & Applebaum, 2011). Among the gaps included no clear medication instructions to patients and 26% of patients in the UK; and more than half of patients from the other countries indicated this gap.

Africa is experiencing a critical shortage of health care workers, with the current number insufficient to meet population health needs with average nursing and midwifery personnel-to-population ratio of 11 per 10,000 and even less in Ethiopia and Tanzania: 2–10,000 (Brysiewicz, 2011; Wolf et al., 2012). It is therefore not uncommon to see Registered General Nurses (RGNs) who have minimal skill in emergency nursing put in the emergency department to care for patients. The lack of emergency nurses and inadequate hospital beds coupled with the burden of a high rate of road traffic accidents in Ghana (Coleman, 2014), poses a potential risk of compromising the quality of care in the system.

In Ghana, discharge planning is a feature of the healthcare system, thus every in-patient is expected to transition care through the discharge planning process. However, the real picture in an ED is that, in general, nurses who are ill-equipped with emergency nursing skills work in the department because the emergency nursing specialization is fairly new in the country. According to the Nursing and Midwifery Council's (N&MC) of Ghana, discharge planning is a basic care for implementation by every professional nurse and is a key component of the standard procedure manual. Hence, 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 and Midwifery Council of Ghana, 2015). However, it was estimated that 24% of inpatients in Margaret Marquart Catholic Hospital (MMCH) did not receive comprehensive discharge planning implementation in 2015 (Azari, 2017). This indicates that staff did not comply with the standard discharge planning implementation. In other hospitals, some patients are usually discharged without having an adequate understanding of their medications, and others not well prepared to continue self-care at home as well.

Poor implementation of discharge planning is associated with varying consequences for both the individual patient/family and the health system as a whole (Waring, Marshall, Bishop, Sahota, Walker, Currie, Fisher, & Avery, 2014). At the individual level, it is associated with adverse events, poor compliance to treatment, complications, and readmissions (Forster, Murff, Peterson, Gandhi, & Bates, 2003; Fox, Persaud, Maimets, Brooks, O'Brien, & Tregunno, 2013). At the system level, poor discharge practice is associated with increased service utilization and cost of care (Greenwald, Denham, & Jack, 2007; Snow, Beck, Budnitz, Miller, Potter, Wears, Weiss, & Williams, 2009; Waring et al., 2014; Kansagara, Chiovaro, Kagen, Jencks, Rhyne, O'Neil, Kondo, Relevo, Motu'apuaka, & Freeman, 2015).

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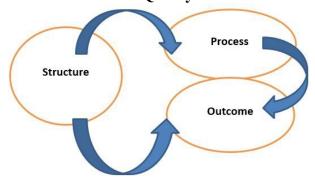
Lingle (2013), indicated that evidence-based guidelines for discharge instructions, when effectively carried out, reduce readmission rates in patients, leading to better quality of life and cost-saving in North Carolina. He further

noted that failure to provide complete discharge instructions results in non-adherence to treatment regimens and a lack of essential follow-up; the most commonly identified reasons for readmissions. Additionally, Over 28 % of 684 patients experienced post-discharge adverse events (AEs), most of which were either preventable or ameliorable (Tsilimingras, Schnipper, Duke, Agens, Quintero, Bellamy, Bates, 2015).

Despite the known benefits of comprehensive discharge planning to inpatients, the level of implementation of the discharge planning process in Ghanaian hospitals is not clearly stated. Again, there is the challenge of the general public's perception of a dwindling standard of care by nurses and the general lowering of standards in Ghana (Asamani, Kwafo, & Ansah-Ofei, 2013). A comprehensive review of literature also reveals that almost all the adverse medical events are in one way or another associated with poor implementation of the discharged planning process (Forster et al., 2003; Tsilimingras et al., 2015). That notwithstanding, there is a paucity of literature about the implementation of the discharge planning process in the healthcare system in Ghana. Besides, there is no policy-driven framework for discharge planning practices; and no policy entity dictating discharge planning as a separate element of service package for patients as treatment and a transitional care intervention as it is in some countries (Azari, 2017). This made it imperative to study patients' perspectives about the discharge planning process and quality of care at the Emergency Department (ED) of the Tamale Teaching Hospital (TTH)

Donabedian's structure, process and outcome theory for service quality evaluation underpins the conceptual framework in this study. The concept of Healthcare quality was defined by Donabedian in his model: he described the quality assessment as a triad of structure, process, and outcome (SPO) constructs. This model was universally accepted and has been widely used in the literature especially for the development of quality standards (Ibn El-Haj, Lamrini, & Rais, 2013).

### **Donabedian Model of Healthcare Quality**



This study assessed the structure of the Emergency Department and its relationship with the quality of care in the Tamale Teaching Hospital. This will help improve the quality of care patients receive through improvement in the structure of the emergency department.

### **Study Design and Methods**

Fetters, Curry, and Creswell (2013) describe a research design as a plan that describes how, when and where data are to be collected and analysed. The research design begins with a problem, or question, and in the context of the logic of the research, determines what kind of evidence will address the research question adequately (Hancock & Algozzine, 2016). The study is quantitative in nature; hence a cross-sectional survey design was adopted to collect data from patients at the emergency departments of TTH. A cross-sectional design was used in this study because all data were collected at one time and from a section of the population. Cross-sectional studies examine the relationship between variables of interest as they exist in a defined population at a certain point in time (Bell & Jones, 2015).

In this study, a structured questionnaire was used to collect data from patients who meet the inclusion criteria. The questionnaire in this study consists of four sections. Section A collected data on respondents' socio-

consists of four sections. Section A collected data on respondents' sociodemographic characteristics such as age, gender, religious affiliation, and ethnicity. Section B contained questions about the structure of the emergency department. Section C dealt with the discharge planning process and the last section (D) contained questions on the quality of care in four domains (responsiveness, individualisation, knowledge, and coordination.

Permission was sought and obtained from management and the research unit in particular of TTH with an introductory letter from the Ghana College of Nurses and Midwives. Once permission was granted, the purpose of the study was explained in simple language to the understanding of the patients who met the inclusion criteria. If respondents agreed to participate in the study, they were required to sign or thumbprint a consent form to which they reserve the right to decline participation or withdraw from the study at any point in time they wish to do so. After obtaining the consent of any point in time they wish to do so. After obtaining the consent of respondents, face-face interview with the written questionnaire was the main method of data collection. Three research assistants were trained to assist the researcher in data collection. English and Dagbani were the main languages used in data collection. However, for those who could not understand any of these languages, the services of an interpreter were sought and the questionnaire filled appropriately.

### **Data Management and Analysis**

The Statistical Package for Social Sciences (SPSS), now known as Predictive Analytics Software (PASW) version 20 was used to analyse the data. Filled-in questionnaires were checked for completeness, coded and entered directly into the software for analysis. Data cleaning was done after data entry by running frequencies and checking for out of range responses and missing values. Both descriptive and inferential statistical analyses were carried out to meet the study objectives. Descriptive results took the form of frequencies, percentage distribution, means, and standard deviations and presented in tables. Moreover, with a p-value of less than or equal to 0.05 (p≥ 0.05) as the significance level at a 95% confidence level, a bivariate correlation analysis was done to establish the relationship between structure, discharge planning and quality of care. Since the dependent variable (quality of care) is assumed to be measured on the interval scale, Pearson Product Moment Correlation (Pearson r) was used to establish the relationships.

To ensure validity, the researcher conducted an extensive literature

To ensure validity, the researcher conducted an extensive literature review and thoroughly examined the adapted questionnaire to ensure that all the variables to be measured are included; questions that were irrelevant to the current study were removed and other questions modified to meet the study objectives. Additionally, pre-test of the study instrument, the questionnaire was conducted in the Navrongo Municipality with twenty (20) patients who met the inclusion criteria. This exercise was to validate the questionnaire, whether it is too long or short, difficult wordings or contain culturally sensitive questions. In ensuring reliability, the reliability coefficient (Cronbach's alpha) was calculated after the pre-test of the questionnaire to ensure internal consistency. The Cronbach's alpha for the structure was (0.75) that of the discharge planning was (0.86) and the quality of care was (0.77).

discharge planning was (0.86) and the quality of care was (0.77).

Ethical considerations are very important aspects of the research process. The ethical principles underlying research are general and concern issues such as privacy, anonymity, confidentiality, honesty, and respect for fundamental human rights (W. Creswell, 2009). The principle of anonymity and confidentiality was adhered to, hence, the identity of participants was not a requirement on the questionnaire and the information obtained was strictly confidential.

The proposal for this study was submitted to the Tamale Teaching Hospital (TTH) Ethics Review Committee for approval before the start of the study. Also, a letter of certification from the Ethical Committee of the Ghana College of Nurses and Midwives together with a letter of permission was added to the proposal and submitted to the institutional Review Board (IRB) of TTH.

This study involved patients and or caregivers as the participants who were admitted into the emergency department and discharged home. Only

discharged patients and or caregivers who were ready to leave the hospital and consented to participate in this study were approached. Patients and or caregivers who could not communicate verbally or in writing in languages the researcher/assistants understand were excluded.

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 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 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. Some authors consider the right to privacy to be within the justice principle (Polit & Beck, 2008:174).

Patients and or caregivers who accepted to participate in this study were asked to sign a consent form indicating their voluntary agreement to

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.

It was explained, before 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.

### **Findings**

Structure Of The Emergency Department (Ed)

In this study, structure refers to prerequisites, such as hospital buildings, staff, and equipment in the facility. Because the study was conducted in one department, the assessment of the structure was about the emergency department. Appendix A presents the profile of staff and equipment available in the department. On the other hand, the appearance of the department was assessed with five items and the findings presented in table 4.6 below. From the results presented in the table below, the high mean score on the total score on structure (appearance), 13.32 (SD = 2.83) suggests a high standard emergency department. In terms of adequacy of space in the department, 62.4% (n = 231) and 6.5% (n = 24) of respondents rated good and poor respectively. Additionally, the majority of the respondents, 60.8% (n = 225) rated the cleanliness of the department as good whereas only 4.3% (n = 16) gave a poor rating to the cleanliness of the department.

Table 1. Structure of the Emergency Department

Items	N	Poor	Fair	Good	Excellent	Mean	SD
Adequacy of space in	370	24 (6.5)	52 (14.1)	231 (62.4)	63 (17.0)	2.90	.74
the ward							
Cleanliness of the	370	16 (4.3)	68 (18.4)	225 (60.8)	61 (16.5)	2.89	.71
ward							
Accessibility of	370	42 (11.4)	113 (30.5)	163 (44.1)	52 (14.1)	2.60	.86
washrooms							
Cleanliness of the	370	44 (11.9)	137 (37)	150 (40.5)	39 (10.5)	2.49	.83
washrooms							
Availability of	370	45 (12.2)	149 (40.3)	151 (40.8)	25 (6.8)	2.42	.78
privacy in the ward							
Total Structure	370					13.32	2.83

**Source:** Field data 2018

# Relationship between Structure of the Emergency Department and Quality of Care

To establish the relationship between structure and quality of care, a Pearson product-moment correlation (Pearson r) analysis was done as the variables were assumed to be linearly related and measured on an interval scale. The results showed a statistically significant positive correlation between the structure of the ED and all the domains of quality of care. There was a statistically significant positive correlation between structure and responsiveness (r = .528, p = .001). This is a moderate correlation and implies that when the score on structure increases, there is a corresponding increase in the total score on responsiveness. Similarly, there was a statistically significant positive correlation between structure and individualisation (r = .417, p = .001), knowledge (r = .396, p = .001) and coordination (r = .300, r = .001). The results are presented in Table 1 below.

Table 2 Relationship between Structure and Quality of Care.

	Structu	Structure of the ED		
Quality of care	r	p-value (2-tailed)		
Responsiveness	.528**	.001		
Individualisation	.417**	.001		
Knowledge	.396**	.001		
Coordination	.300**	.001		

**Dependent variable:** Quality of care, 95% confidence level ( $\alpha = .05$ )

### **Discussion**

The purpose of the study was to quantitatively evaluate the discharge planning process and quality of care patients and caregivers received in the ED of the Tamale Teaching Hospital. The quality of bedside nursing care is constantly affected by the related hospital services such as the quality of beds, the quality, and cleanliness of bed linens, the number of bathrooms available, the quality of the bathrooms available, cleanliness of the toilets, and ventilation and lighting in the wards (Al-Hussami, Al-Momani, Hammad, Maharmeh, & Darawad, 2017). From the findings in the current study, the high mean score on the total score on structure (appearance), suggests a high standard emergency department. On the contrary, Bahrami, Maghsoudi, Rafiee, Alfaraj, and Ghasemi (2014) found that there was maximum satisfaction related to support nursing services and minimum satisfaction was satisfaction related to support nursing services and minimum satisfaction was related to the structure of the ward.

In terms of adequacy of space in the department, 62.4% and 6.5% of respondents rated good and poor respectively. Contradicting the findings in the current study, descriptions by the participants in a qualitative Irish study portrayed an ED that was overcrowded, dirty, lacking in resources and resembling a disaster zone or hospital scene (Coughlan & Corry, 2007). Eitel, Rudkin, Malvehy, Killeen, & Pines (2010) study indicated that overcrowding in amorgan and departments (EDa) is a concerning clobal problem and has been in emergency departments (EDs) is a concerning global problem and has been identified as a national crisis in some countries.

Additionally, the majority of the respondents 60.8% rated the cleanliness of the emergency department in the current study as good whereas only 4.3% gave a poor rating to the cleanliness of the department. Similarly, Rajkumari and Nula (2017) found that the majority of respondents (77.5%) were averagely satisfied with the cleanliness of a government health facility in India. Again, 80.6% of respondents mentioned that they were fairly satisfied with the cleanliness of the hospital's ED in a University Teaching Hospital in Nepal (Subedi & Uprety, 2014). Many studies have also shown that environmental cleaning is effective in reducing pathogens transmitted within the hospital. However, others argue that cleaning is not an evidence-based science because there is no scientific standard to measure the outcome of an individual cleaner or to assess the result of cleanliness (Dancer, 2009).

Furthermore, the findings from the current study showed a statistically significant positive correlation between the structure of the ED and all the domains of quality of care. This implies that an ED with a good structure has a positive impact on the quality of care and the reverse could also be true. Similar to this finding, crowding in emergency departments (EDs) nationally and worldwide has impacted the quality of care (Bernstein, Aronsky, Duseja, Epstein, Handel, Hwang, McCarthy, McConnell, Pines, & Rathlev, 2009). Contradicting these findings, a cross-sectional study by Ghose and Adhsih (2011) revealed no association between cleanliness services and patient satisfaction with the quality of nursing care.

Increases in inpatient mortality, medication errors, pain, length of hospital stay, and other deleterious effects have been documented (Sprivulis, Da Silva, Jacobs, Frazer, & Jelinek, 2006). When an ED is crowded, all beds may be occupied, and overflow patients frequently are placed in hallways to receive care. In such circumstances, emergency healthcare professionals are placed in a difficult position of providing care to patients with suboptimal nursing support and lack of privacy. Placing new patients on the floor at the ED until a bed becomes available poses a further risk, as there is no way to directly observe or monitor patients. Some hospital administrators insist that care in hallways be provided but fail to provide logistical support needed to accomplish this task. However, a long stay of patients in the ED has been long recognized as one of the prime causes of ED crowding (White, Biddinger, Chang, Grabowski, Carignan, & Brown, 2013). Therefore, regular transfer of detained patients in the ED to other inpatient wards is safe and effective (Viccellio, Santora, Singer, Thode Jr, & Henry, 2009).

Implications for Nursing Practice and Policy

The research results showed good discharge planning process practice and high quality of care, there is a need for more family involvement in the process. There is the need for the hospital management to demonstrate that discharge practice is a priority, with much emphasis on family involvement. This can be done through in-service training on discharge planning for all staff at the emergency department of the hospital.

The Ghana Health Service should develop a clear policy and guidelines

on discharge planning and its implementation. Given that discharge planning is a service in itself, there is the need for its implementation to be designated to a specific officer. This will allow for proper implementation of the process. The Ministry of Health (MOH) in collaboration with Ghana Health Service (GHS) should also consider a sensitization programme that would seek to educate the general public about the actual role of nurses in the healthcare delivery system. The finding about quality of care from the current study demonstrates that the public outcry about poor quality of nursing care in Ghana is a mere perception but not a reality. Hence, this sensitization programme will be very helpful in demystifying the public perception about the quality of nursing care in Ghana.

### Conclusion

The findings from the study revealed a good practice of the discharge planning process and high quality of care with a greater proportion of the respondents reporting good discharge planning practices and high quality.

These findings refute the media outcry about a dwindling quality of nursing in most healthcare facilities in northern Ghana. The worrying revelation of this study, however, was the point where just 5.9% of the respondents indicated that there was family involvement the discharge planning process. This calls for more improvement in some aspects of the discharge planning process and quality of care.

## **Conflict of Interest Statement**

The Authors of the manuscript declare that no conflict of interest exists.

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