Research Article

Explicating Discharge Planning Preferences among a Select Group of Filipino Nurses: A Conjoint Analysis

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Abstract

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Discharge planning is integral in the delivery of effective patient care in clinical settings. Hence, an organized and coordinated system is necessary in facilitating the discharge process and in ensuring a seamless transition of patients from one level of care to another. The purpose of this study is to identify the preferences of nurses on discharge planning, and to analyze the significant differences of nurses' discharge planning preferences and their demographic information. A two-part researcher-made instrument was utilized in the conduct of the study including the *robotfoto* and plan cards. Preliminarily, the plan cards having nine attributes with two levels each were validated by experts and was pilot-tested to a select group of respondents from the target population. A conjoint analysis survey of 230 nurses in a teaching-and-training hospital was conducted from May and June 2013.

Capitalizing on the power of conjoint analysis, preferences of nurses have been unveiled. The most important attribute is the structure (importance value= 19.25%) in which nurses utilize in facilitating the discharge plan. Nurses prefer to employ formal structure (part worth value= 0.442) as it encompasses patient and family involvement following an organized protocol and has detailed documentation. Conversely, comprehensive patient assessment has been the least preferred attribute (importance value= 3.71%) in which the head-to-toe assessment had its part worth value of 0.86.

As a whole, an analysis and understanding of nurses' preferences serve as an impetus for them to actively engage in the discharge planning process by developing effective structures that will benefit patients.

Key words: *Registered nurses, discharge planning, conjoint analysis, preferences*

Introduction

Discharge planning has been defined as an interdisciplinary responsibility (Foust, 2007) and approach (Lin, Cheng, Shih, Chu, & Tjung, 2012) that aids in ensuring continuity of care (Han, Barnard, & Chapman, 2009). Moreover, it is a quality link (Lin et al., 2012), a critical point (Foust, 2007), and an essential process (Holland, Rhudy, Vanderboom, & Bowles, 2012) in facilitating a seamless transition (Kerr, 2012) from one level of care to another. Undeniably, discharge planning is a complex aspect of nursing practice. According to Foust (2007), it is often difficult to complete, is subject to misjudgment, and can be

overlooked due to competing care requirements (Holland et al., 2012). Furthermore, nurses and healthcare professionals' role is not yet fully defined (Han et al., 2009) and lack understanding over their responsibility on the process (Morris, Winfield & Young, 2012). Amidst the many competing demands vested on nurses (Rhudy, Holland, & Bowles, 2010), they play a pivotal role (Kerr, 2012) in the discharge planning process. Indeed, nurses' decision-making in a chaotic and fast-paced arena (Rhudy et al., 2010) affects patient outcomes (Foust, 2007) where their simple initiatives can yield major impact on the process (Morris et al., 2012).

It is against the foregoing context that this paper was conceived. Cognizant of the fact that discharge planning should be delivered in a collaborative manner, this study is anchored on a belief that nurses possess a distinct role in the process as they tend to facilitate the discharge plan. Understanding their involvement and their own concept of discharge planning, this present study specifically focuses on a generative lens to identify the preferences of nurses on discharge planning. Attributes revolve in the axis of comprehensive patient assessment, timing and implementation, specific nursing skills, communication expectations, structure, documentation type, and patient readiness for discharge and health education. According to Rhudy, Holland, and Bowles (2010), these arrays of attributes set influence on patient outcomes as nurses are involved in a serial and complex decision-making activities. It is, therefore, important to understand the core aspects of discharge planning to ascertain the preferences of nurses which are particularly significant to spell out directions, improve standards, and better the priorities of nurses, who play as important resources of patients' health state. This paper argues that unfolding of a knowledge base on nurses' preference is vital as such can neither be overlooked nor underestimated.

Methods

Descriptive measures were used to describe the characteristics of the study population by using frequency and percentage. For the meat of the study, conjoint analysis was utilized to compute the importance and utility values of the attributes and levels of discharge planning.

The salient results were yielded from two-hundred thirty (230) nurses in a tertiary training hospital in La Union. This institution provides specialized training for doctors, medical practitioners, midwives, researchers, and nurses in particular. Notably, the Department of Health designated the institution as Heart-Lung-Kidney Collaborating Center for Northern and Central Luzon. Such affirmation provides nurses an arena of strengthening and molding their practice in providing effective and holistic care.

The overall intent of this quantitative study is to explicate nurses' preferences relative to discharge planning. Hence, the researcher decided to utilize conjoint analysis, a market-based research model. The overall effect of attributes on preferences for products and services has made this model valuable. Notably, researchers from the healthcare industry have also discovered its value in various preferential issues (Mele, 2008).

The researched developed a two-part corpus of data to effectively facilitate data gathering. The first part, a respondent's *robotfoto* (Kelchtermans and Ballet, 2002) was fielded for the purposes of establishing baseline characteristics of nurses under study and deemed to be useful on the analysis and interpretation of data. Part II of the instrument, called the plan cards, were primarily designed to identify nurses' discharge planning preferences. Sixteen (16) cards have been reviewed for content validity by two nursing administrators and a dean of nursing. Pilot testing has also been done in which test and retest reliability coefficients yielded 0.998 to 1.00 indicating that the cards were satisfactory in two different time points. Through an extensive review of literature, nine major attributes have been identified and constructed by incorporating concepts highly indicative of the aspects of discharge planning. The nine attributes are comprehensive patient assessment, timing and implementation, role involvement, specific nursing skills, communication of patient status, discharge planning structure, type of documentation, patient readiness for discharge and health education respectively. In this study, each attribute was described in terms of two levels or utility values. An orthogonal array was then developed which resulted to five hundred twelve (512) choice bundles for discharge planning. From there, sixteen (16) choice bundles were obtained (twelve actual choice bundles and an additional four were included for reliability purpose). Each choice bundle was represented by the combination of attributes and utility values; those were presented through orthogonal cards that were coded and laminated cardboard cut-outs.

The researcher advised the respondents to complete the survey individually to prevent the results from being influenced by their colleagues; to answer effectively and not in a hurried manner. Preferences are considered nominal data. These data were collected by asking the respondents about their preferences on discharge planning as defined by attribute combinations. The respondents were instructed to sort the sixteen (16) choice bundles and rank them from 1-16. The survey was performed and process has been repeated with each level of preference until all choice bundles are ranked accordingly. Additionally, a numerical utility, or part-worth utility value, was computed for each level of the attributes. Large utilities ranges are assigned to the most preferred data and the small utilities range denote the least preferred data.

Results

Profile of the Nurse Respondents

Table 1 depicts the demographic profile of the respondents. Of the 230 respondents, there is a preponderance of staff nurses (88.70%), who are bachelor's degree holders (88.70%), and 87.39% are nurses who are working with less than 10 years of experience. Majority of the respondents are contractual or in contract-of-service status (71.74%). More than half of the respondents are female (63.91%), and are within the age range of 20-25 years old (58.70%).

The results of the conjoint technique as depicted in Table 2 showed discharge planning structure (19.25%) as the most important factor that nurses considered when facilitating the discharge plan. This most important factor was obtained based from the percentage of respondents who voted for each item as most important

Table 1 - *Profile of the Nurse Respondents (N=230)*

Profile		N	%
Age	20 – 25	135	58.70
	26 – 30	38	16.52
	>30	57	24.79
Gender	Male	83	36.09
	Female	147	63.91
Education	Bachelor's degree	204	88.70
	MAN/MAN units	26	11.3
Work Experience	<10 years	201	87.39
	>10 years	29	12.61
Employment Status	Permanent	65	28.26
	Contractual	165	71.74
Rank/ Position	Staff nurse	204	88.70
	Nurse administrators	26	11.13

Table 2 - *Discharge Planning Preferences, Attributes and Levels (N=230)*

Levels of Attribute	Utility (Part Worth)	Importance Value (%)
Comprehensive Patient Assessment		
Head-to-toe assessment	.0855	3.706
Affected System only	-.0855	
Timing and Implementation		
On admission	.2804	12.155
Prior to leaving	-.2804	
Role Involvement		
In collaboration	-.2949	12.783
Nurse alone	.2949	
Specific Nursing Skills		
Time Management & Organization	.0957	4.146
Problem Solving & Communication	-.0957	
Communication of Patient Status		
Daily basis	-.1986	8.606
Time of discharge	.1986	
Discharge Planning Structure		
Formal	.4442	19.253
Informal	-.4442	
Type of Documentation		
Structural & Clinical data	.3051	13.222
Structural data alone	-.3051	
Patient Readiness for Discharge		
Normal Vital Signs	-.2572	11.149
Doctor's approval	.2572	
Health Education		
Across Hospitalization	.3457	14.981
Routine care accomplished	-.3457	

(importance value). This was followed by health education (14.98%), type of documentation (13.22%), role involvement (12.78%), timing and implementation (12.15%), patient readiness for discharge (11.15%), communication of patient status (8.61%), specific nursing skills (4.15%), and lastly on comprehensive patient assessment (3.71%).

Discharge Planning Levels and Nurses' Preferences

The foregoing accounts depicted in Table 2 also present the utility values of the attributes of discharge planning. These utility values were derived from the two (2) levels listed under the nine (9) discharge planning attributes basing on nurses' preferences or priority. The opposite numbers, indicated by the two (2) levels respectively, were based from the actual decisions that a nurse can decide on as conferred by various authors. Paired comparison was utilized in the measurement and scaling task

The following results convey nurses' preferences under the levels of each attributes. In regard to the part worth of comprehensive patient assessment, head-to-toe assessment has been preferred. As for timing and implementation, nurses prefer to commence the discharge plan on admission or twenty-four (24) hours from admission. When it comes to role involvement, nurses preferred to take part in the process alone. Further, nurses prefer time management and organization as the specific nursing skills required in facilitating the discharge plan. Moreover, in contrast with the common belief that the communication of patient status should be done in a daily basis wherein any updates or progress should be relayed to the patient and their family members, nurses preferred communication at the time of discharge. The study resulted to formal discharge planning structure as the preferred level of nurses. In terms of type of documentation, nurses preferred the endorsement of both structural and clinical data reflecting nurses' responsibility in legal documentation. Patient readiness for discharge should start upon doctor's approval. And lastly, health education should be given across hospitalization.

Discussion

Using preference-based conjoint analysis, this study elicited the discharge planning preferences of a select group (N=230) of Filipino nurses. According to the assessed discharge planning preferences, the structure of the discharge planning process was deemed most important, and the attribute, comprehensive patient assessment showed the least importance. The structure of discharge planning which is preferred to be formal ranked most important because nurses utilize it as they facilitate and participate in the process. Bounded by hierarchical and historical norms of institutions, nurses adhere to protocols and policies mandated by the institution. This finding is strengthened by the study of Yam, Wong, Cheung, Chan, Wong, & Yeoh (2012) which affirms that whichever the case maybe—requiring simple or complex needs, a well-defined structure or framework of discharge planning must be employed. Interestingly, it is by following a discharge planning structure that nurses work best; as this facilitates nurses as they perform their tasks in an organized manner to provide better discharge plans. A structure brings ease in the performance of their workload and maximizes their time in the clinical area.

Conversely, the comprehensive patient assessment has been regarded as the least preferred attribute because of the compelling demand of tasks on nurses. Apparently, patient assessment as a vital aspect in the nursing process is one of the skills of nurses that is not well practiced and developed especially in a developing country like the Philippines. Grimmer et al. (2006) revealed in their qualitative findings that the amount of time spent with patients such as in physical assessment suggest that “little-patient centered time” was spent.

Moreover, the results from the levels or utility values from the discharge planning attributes depicted relevant and meaningful findings. First, in comprehensive patient assessment, head-to-toe assessment has been preferred. This can be ascribed to the importance of obtaining a coherent assessment as basis to yield effective interventions. In timing and implementation, nurses prefer to commence the discharge plan on admission or twenty-four (24) hours from admission. Starting the discharge planning process early paves the way to develop a working framework to effectively manage patient care and entails the assessment of current home situation and potential barriers to discharge (Marshall, 2012). When it comes to role involvement, nurses preferred to take part in the process alone. Nurses, nowadays, hold positive beliefs and attitudes as they enable innovative decision making resulting in the best patient outcomes. The “autonomy through empowerment” is now an emerging perspective to nurses as they challenge current practice giving them a

sense of their "voice" (Balakas, Sparks, Steurer, & Bryant, 2013). Further, nurses prefer time management and organization as the specific nursing skills required in facilitating the discharge plan. The study of Kaya, Kaya, Pallos, and Kucuk (2012) affirms that efficient time management is considered a criterion in attaining and achieving desired goals at the minimum time possible. It is also in prioritizing activities that one can utilize time appropriately; it means that control, handle, and act on various tasks with ease and satisfaction. Moreover, in contrast with the common belief that the communication of patient status should be done in a daily basis wherein any updates or progress should be relayed to the patient and their family members, nurses preferred communication at the time of discharge. On another stance, the structure being employed in the discharge planning process varies from one case to another. The study resulted to formal discharge planning structure as the preferred level of nurses. Lin et al. (2012) conferred that in formal discharge planning- patient and family participation, well-defined structure and guidelines, effective communication with the hospital and the community, and detailed communication through proper documentation are relevant. In terms of type of documentation, nurses preferred the endorsement of both structural and clinical data reflecting nurses' responsibility in legal documentation. Both types of data serve not only as a proof that something has been done but also serve as a reference in determining innovative interventions for patients. Patient readiness for discharge should start upon doctor's approval. Undeniably, Filipino nurses still acknowledge historical and hierarchical dispositions of physicians as the primordial source of authority. And lastly, health education should be given across hospitalization. Indeed, it is a core component of support and a key determinant of an effective discharge planning process.

Conclusion

This study has ascertained the potential use of conjoint analysis as a powerful tool in nursing research by highlighting its ability to look deeper into the preferences of nurses on discharge planning. Remarkably, the most preferred attribute in discharge planning is the structure in which the discharge plan is facilitated while the least viewed is the comprehensive patient assessment. Generally, nurses work best by following a formal structure of discharge planning. It is in this manner that they are able to collaborate with the patient and their family as guided by standardized protocols and policies. This structure also includes the vitality of providing proper documentation. It is with the use of formal discharge planning structure that facilitates nurses to provide better discharge plans and work in an organized manner. On the other hand, head-to-toe assessment is the popular choice among respondents in terms of comprehensive patient assessment as this process provides nurses and other health care professionals a baseline on how to yield effective interventions on patients. It is on the basis of the assessment cues that the discharge plan can be further actualized. Additionally, by virtue of the nurses' effective and efficient knowledge, skills and implementation of patient assessment that quality health care can be provided. The quality and consistency of nurses' head-to-toe assessment to patients contributes an improvement in the health care process by avoiding unnecessary repetition and providing ample time to address the perceived needs upon hospitalization.

Knowing the preferences of nurses serves as an impetus for them to actively engage in the process by developing effective structures that will benefit the recipient of quality care, the patient. Further, an analysis and understanding of their preferences should not be undermined because it acts as springboard for receptivity and empowerment in nursing care as nurses take the lead in discharge planning.

Moreover, educators in the nursing field scarcely delved into and hardly include discharge planning in the nursing curriculum. In addition, in-depth discussions and related-learning experiences barely focus on the vital concepts in regard to discharge planning process. It is then imperative that nursing educators integrate discharge planning in co and extracurricular activities to strengthen students' academic and clinical preparation; thus, providing them adequate knowledge about the principles, guidelines, and structures in planning and facilitating the discharge plan. Since health education is one of the core tenets of nursing, students and educators should give more importance in honing their assessment of learners, learning needs and learning styles for them to effectively carry out their mandated responsibility on discharge planning. Significantly, students and nursing professionals should be able to clearly put across theories in a way those patients and their family members can understand.

This study serves as a basis of wisdom to address the seeming paucity in literature highlighting the preferences

of nurses in discharge planning especially in the Philippine context. In line with this, future researches may stem from the findings of the conjoint analysis. Significantly, through the continuing efforts of all areas of nursing, we will be steadfast enough in continuing our quest to a positive-practice environment, and by our strong determination we can build the theory-practice gaps.

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"CARE IS THE ESSENCE OF NURSING AND THE CENTRAL, DOMINANT, AND UNIFYING FOCUS OF NURSING"

(LEININGER 1991)