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Educating Staff Nurses for Successful Patient Discharge

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Walden University
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Abstract

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MS, Walden University, 2011

BS, Daemen College, 1999

Project Submitted in Partial Fulfillment

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Abstract

The definition of a successful discharge is a discharge that results in patients successfully managing a chronic disease for at least 30 days without requiring an acute inpatient hospitalization. Many chronic disease readmissions are preventable. Successful discharge planning takes a multidisciplinary team that includes nurses who assess the discharge plan and provide additional education where needed. The purpose of this project was to determine staff nurses' understanding of their role in discharge education. Dorothea Orem's self-care deficit theory guided the project and root cause analysis was used in the development of the problem statements. Staff nurses (n=12) from evening and day shift of a rural hospital were interviewed using questions developed from the content from the literature review. Individual interviews were conducted with the volunteer participants and data from the interviews were examined using content analysis. Results included barriers to discharge education were related to inadequate nursing education, poor patient compliance, and inadequate discharge planning. Recommendations from the nurses' interviewed included the need for staff nurse education regarding their role in the educational needs of the patient and their family prior to discharge. The findings from this project may benefit nurses' practice by providing them with an understanding of the need for effective discharge education for patients. When patients are appropriately educated prior to discharge, their ability to self-manage their disease may improve, which can result in a decrease in health care costs and preventable readmissions. Educating nurses about their role in discharge planning promotes positive social change by improving the quality of the discharge education and patient outcomes.

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Dedication

I wish to dedicate this project to my parents Wade and Penny Burdick. Their love of learning and encouragement has always and will forever guide and motivate me, and I will endeavor to pass their wisdom onto future generations.

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Acknowledgments

I wish to acknowledge my husband, Owen, for his understanding of the time and effort required to attain my goals. My granddaughter Cailyn also deserves recognition for helping me “do my homework” from the age of two. I also wish to thank Kamaria Williams, Dr. Joan Hahn, and Dr. Janice Long for providing the support I needed to realize that “dreams can come true”.

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Section 1: Nature of the Project

Introduction

An estimated 28.5% of hospital readmissions are preventable (Hekkert et al., 2017). Some of these readmissions are due to chronic health issues. Patients with chronic diseases, and their families, require comprehensive education to prepare for discharge (Hagedoom et al., 2017). This education must be comprehensive because coping with chronic disease requires incorporating discharge education with the inclusion of community health services, chronic disease symptom management, and the use of available resources (Robles et al., 2011). Comprehensive education allows the patient and their families to understand the chronic disease process and develop effective coping strategies that can be used following discharge (Van Walraven, Bennett, Jennings, & Forster, 2011). The nurses' role in discharge planning requires communication with many entities, such as, hospitals, various therapy departments, and community health programs. This communication enables the nurse to identify a patient's lack of knowledge regarding their chronic disease or condition thereby enhancing the development of educational interventions. Nurses need to identify gaps, both in the education of patients and their care givers, and in identifying barriers to their chronic disease management (Mittler, O'Hora, Press, Volpp, & Scanlon, 2013). Thus, nurses' knowledge of successful patient discharge can impact patients and hospitals in the long term.

The aging of the United States is causing an increase in the incidences of multiple chronic diseases (Uchmanowicz, Jankowska-Polanska & Fal, 2016). According to the World Health Organization, the burden of chronic disease is increasing because of the increased global elderly (Jiang & Li, 2016) This increase in global elderly is in chronic disease leads to higher health care costs (Leask, Sandlund, Skelton, & Chastin, 2016). The U.S. health care system

needs to improve quality care by including comprehensive care in the acute care setting with identification of educational needs of patients, including those individuals with chronic diseases, in the hospital setting.

Problem Statement

Chronic diseases, such as chronic heart failure and diabetes, are causes of escalating health care costs (Chapel, Ritchey, Zhang, & Wang, 2017). Increasing health care costs has led to negative financial effects on the healthcare system. Close to 21% of Medicare beneficiaries have multiple chronic diseases causing financial difficulties and insufficient health care resources (Bodenheimer & Grumbach, 2012). Hospitalizations of individuals with chronic diseases followed by readmissions within 30 days is one cause of the escalating costs; readmissions account for 78% of the health care expenditure (Bell, Turbow, George, & Ali, 2017). In 2014 only 5 % of the population accounted for over 50% of health care spending (Mitchell, 2016).

Public finances are under pressure to decrease and modify the cost of chronic disease management (Ronco, Mason, Nayak Karopadi, Milbaum, & Hegbrant, 2014, p. 963). By the year 2020, 64 million people will be eligible for Medicare benefits (Rowley, 2012). This will cause a huge financial drain on an already taxed system. One possible solution to this problem is patient education in the hospital setting by staff nurses. Nurses as primary care givers in the acute care setting, play a significant part in decreasing unnecessary readmissions by assessing and proactively addressing patients and their families' educational needs (Zhu, Hu, and Wang, 2015).

Purpose

The purpose of this project was to identify staff nurses' perceptions of educational needs of the patient to provide for successful discharge planning. I interviewed 12 staff nurses, categorized

their responses, and then developed a plan of action. Five questions were developed for the interview. Each open-ended question was designed to encourage the nurses interviewed to reflect and respond based on their experiences and opinions of discharge panning. As a result of the answers to the five questions, three outcomes were met: (a) I defined nurses' view of their role in the discharge planning process; (b) nurses identified educational needs for patients and themselves, and (c) nurses identified barriers to effective discharge planning.

Dadosky et al. (2016) concluded that the amount of skill a nurse has in content (teaching) delivery and care coordination explained a significant reduction in readmission rates. Nurses, now more than ever, need to expand their role from providers of care to self-care proponents. Developed skills need to include identification of potential barriers to discharge and increase bed-side education. Barrier identification assists in identifying what coping skills the family and the patient need as well as providing discharge planning teams with information that will enhance identification of appropriate community resources. Zhu, Hu, and Wang conducted a study assessing nurse -directed discharge planning programs and found that early nurse-led discharge planning greatly decreased the rate of readmission (2015).

Significance

Failure of the discharge planning process is defined as an individual's return to inpatient status in less than thirty days after discharge (Center for Medicare and Medicaid Services [CMS], 2018). Ineffective discharge planning may lead to readmissions. Readmissions are identified by the CMS as a quality of care concern (CMS, 2018). In heart failure patients alone, this can cost the healthcare system $30.7 million dollars annually (Dordunoo, et.al., 2017).

Within Medicare, Quality Improvement Organizations (QIOs) work with health care providers on quality improvement initiatives and review medical records to ensure that Medicare recipients are receiving professionally recognized standards of care. These institutionalized providers determine that services were reasonable and medically necessary and whether they were reimbursable under program guidelines. They determine whether the quality of services met professionally recognized health care standards, and whether inpatient services could be effectively provided more economically in another setting (Olmos, 2018). QIOs identified 30-day readmissions as a quality of care concern. If care was provided at professionally recognized healthcare standards, QUIOs asked why individuals returned to the emergency rooms and subsequently were rehospitalized?

Nature of the Doctoral Project

Providers of health care lack the time, skills and nomenclature necessary to effectively identify education gaps of patients' in effective chronic disease management (Jarrell, Alpers, & Wotring, 2011). Providing education to staff nurses will enhance their ability to provide this necessary discharge education to patients and allow nurses to better play this important role in successful discharge planning (Ziaeian & Fonarow, 2016).

For hospitals to financially survive, individuals with chronic diseases must receive effective discharge planning: teaching effective coping strategies for chronic disease symptom management and providing patients and their families with an outpatient plan that will support the developed coping strategies (Tseng, Lin, Chen, & Chen, 2016). By addressing the barriers to successful discharge identified during the interview of the staff nurses, I highlight necessary changes and additions to the staff nurse's education.

Five questions were developed for the interview. Each open-ended question was designed to encourage the nurses interviewed to reflect and respond based on their experiences and opinions of discharge panning. As a result of the answers to the five questions, three outcomes were met: nurses view of their role in the discharge planning process was defined, nurses identified educational needs for patients and themselves, and nurses identified barriers to effective discharge planning.

Data was obtained by audio-recorded interviews of twelve nurses from a single hospital. The staff nurses were selected from a medical /surgical unit from the evening and day shift. Participation in this project was voluntary. The participants were randomly selected by drawing names of nurses available from a container. The interviews were conducted on different days to prevent participating individuals from sharing knowledge of the interview questions. The project's educational development components occurred after the formal interview process and are to be implemented following project completion.

The information provided by study participants was subjected to summative content analysis. This process allowed the themes and relationships to emerge from the responses given by the nurses interviewed. By counting and comparing keywords and phrases an interpretation was made and compared against the original hypothesis (Hsiu-Fang & Shannon, 2005).

Summary

In summary, effective discharge planning is an important component of a patient's hospitalization. The patent and involved family members require education of the diagnosed disease process (Van Walraven, Bennett, Jennings, & Forster, 2011). This education includes review of dietary restrictions, medication compliance, care requirements, and symptom management. This information is provided by the multiple team members responsible for the

patient's care during hospitalization. The nurse is in the unique position to reiterate and alleviate any confusion regarding the education by providing additional education and explanation of the patient's disease process.

The purpose of this project was to determine the nurse's perception of their role in the discharge planning process. 12 nurses were interviewed using five open ended questions developed for this purpose. The information was recorded, and data was interpreted using summative analysis. The next section will discuss the background and context of this project.

Section 2: Background and Context

Introduction

Empirical evidence indicates that most preventable hospital readmissions are due to symptom mismanagement by the patient and poor healthcare coordination (Derdak, 2017). The aim of this project was to identify staff nurses' educational needs and their barriers to effective discharge planning. While the importance of effective discharge planning is not questioned, its success is largely determined by the nurses involved in the delivery process (McHugh, Berez & Small, 2013). Nurses are responsible for caring for their patients and are thus in the best position to determine their knowledge deficit, provide education, and assess their system support needs upon discharge (Sherman, 2016)

This section will identify and discusses the reason for using Dorthea Orem's self -care deficit theory (2012) as a guideline for this project. I also define the terms used during the writing of this project and, after reviewing the standards of practice as determined by the CMS (2018), I compare them to procedures at the local rural hospital where I conducted my research. Last, I discuss my role as a DNP student.

Concepts, Models, and Theories

Theory

Orem's self-care deficit nursing theory views nurses as nurturing the mind and body of the individual (Orem, 2006). The theory is frequently used in studies that necessitate a self-care component. The goal is to encourage proactive self-care/management by the patient and their family through education by the staff nurses prior to discharge (Simmons, 2009). Although Orem's theory encourages nurses to work with the individual toward self-care, the family is frequently seen as an intricate and supportive component of successful out-patient care as well

(Dalton & Matteis, 2014). Patient education and discharge planning that incorporates symptom identification and treatment management can lead to self-care (Simmons, 2009).

Orem (2006) describes self-care as having universal, developmental or health-deviation requisites (see Figure 1). The universal self-care requisite is the basic needs of the individual including adequate intake of air, nutrition, and water. The developmental self-care requisite is related to the developmental aspect of the human condition such as adolescents and aging. The health-deviation self-care requisite is the ability of the individual to seek medical interventions and follow the prescribed regime. It is the health-deviation self-care requisite that is used as a guiding framework for this project. Orem believed there were times when the individual is unable to utilize self-care. It is during those times that they require the intervention of another individual, in this case a staff nurse (Orem, 2006).

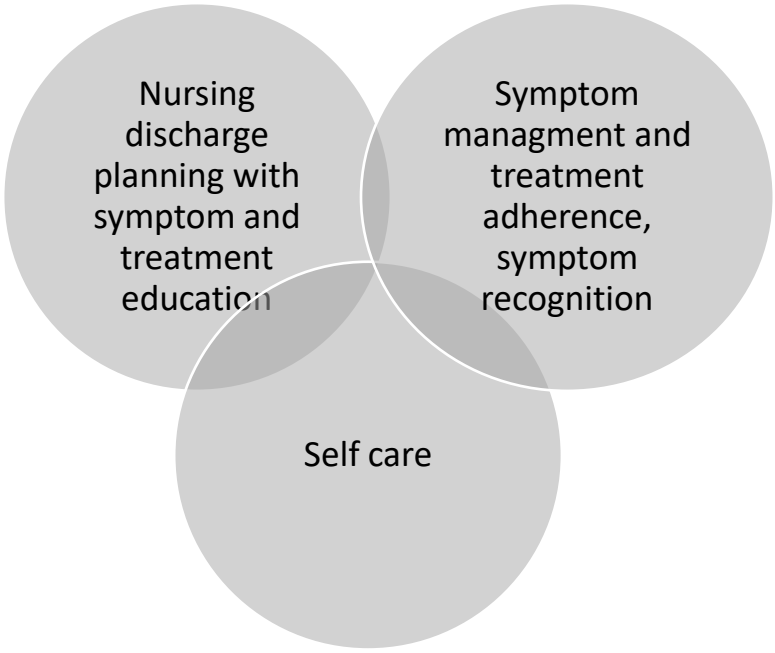

Figure 1. Orem's health deviation self- care theory.

Model

A root-cause analysis (RCA) was used by me to determine the nurse's role in discharge planning. I placed questions on the RCA and then developed questions for the survey. RCA focuses on the cause and how it relates to what was done or is not being done within the facility. RCA is based on fact not conjecture (Schulke, 2013). The problem is first identified, and then individual causes are identified ("Prog Transplant, 2012). Once the" root" of the problem is identified the problem can be identified before it occurs. (Arnaud, 2012). The RCA will be used to develop questions for the survey that will determine nurses' perception of their role in aftercare success.

RCA was first used as an engineering tool by Sakichi Toyoda who is ranked 13th in Forbes top twenty influential businessmen list. One of his biggest contributions was the use of cause analysis by using the five why technique to prevent or solve detrimental situations (Fatima, 2012). The five why's is a process to ask why five times in order to get closer to the cause of the problem. In 1999, healthcare systems began to use RCA to address the high numbers of "adverse results reported in patient safety and hospitalization standards" (Fatima, 2012). RCA continues to be the standard by which hospitals review sentinel events.

Control Charts

The five whys are often grafted either on a fish bone graph or a diagnostic/ decision issue tree. Both methods are control charts that are a tool for the collection and analysis of the data collected from the RCA. The fishbone diagram, also known as the Ishikawa diagram, was first designed by Kaoru Ishikawa as a problem management technique. The problem is placed at the head of the fish and the bones are the possible causes of the problem. The fish bone diagram is a graphical representation of cause and effect (*PMBOK Guide*, 2008)

An innovation on the Ishikawa fishbone is the "lateral tree" which has an edge over the fishbone when it comes to handling more complicated scenarios involving causal branches of several depths (*Envision*, 2012) The diagnostic tree strives to list all the hypothesis of the root cause and vertically align them for a better perspective (Arnaud, 2012). The hypothesis for this project is: staff nurses will identify elements and resources missing for effective discharge planning. It is these identified barriers that will allow for possible solutions to care.

Terms

During this project certain terms were used that require definitions to provide clarity for the discussion of this project. These terms include the following:

Readmission: admissions to the inpatient setting with a previous acute inpatient admission in a thirty day or less time span (CMS, 2018).

Readmission Reduction: Reducing the number of readmissions.

Barriers to Discharge: any social, physical, fiscal, or educational deficit of a patient or their family that has the potential of interrupting a successful discharge.

Chronic Disease: a disease dynamic whereby the only course of treatment relies on the management of symptoms and is associated with frequent reoccurrence of health issues related to the disease entity (Goodman, et al., 2013).

LACE: The LACE assessment evaluates the patients length of admission (L), acuity of illness (inpatient or observation; A), comorbidities (c), and the number of emergency room visits in the past six months (e).

Self-Care: encouragement of the individual to learn to perform symptom management of their chronic disease. This does not include those individuals, such as infants and the elderly, who require complete care (Orem, 2006).

Successful Discharge Planning: the combined effort of nursing and case management to discharge a patient without readmission within 30 days or more.

Relevance to Nursing Practice

Failure of the discharge planning process is defined as return to inpatient status by an individual in less than thirty days after discharge (CMS, 2018). Subsequently, ineffective discharge planning may lead to readmissions. Readmissions are identified by the CMS as a quality of care concern (CMS, 2018). Nurses play a part in successful discharge planning (Nosbusch, Weiss, & Bobay, 2010). However, providers of health care lack the time, skills and nomenclature necessary to effectively identify the educational needs of patients' in active chronic disease management (Jarrell, Alpers, & Wotring, 2011). For hospitals to financially survive, individuals with chronic diseases must receive effective inpatient education that teaches coping strategies after discharge (Pinchera, Delloiacono, & Lawless, 2018). "Barriers to successful discharge identified during the interview of the staff nurses will highlight necessary changes and additions to nursing education" (McHugh, Berez, & Small 2013, p. 1740). Effective discharge planning may decrease these barriers by decreasing the number of chronic readmissions.

Local Background and Content

The site of this DNP project is a small rural hospital in a northern state. The hospital is an 87-bed non-profit hospital with 2,357 discharges per year and an annual revenue loss of $1,569,648 (American Hospital directory (AHD) 2018). The closest hospital is 28 minutes away and it has a 31-bed capacity, 570 discharges per year, and a revenue loss of $1, 580,345 (AHD, 2018). The closest metropolitan hospital is 68.3 miles away with 319- bed capacity, 13,212

discharges, and an annual revenue of $1,623,223,224,096 and no reported loss of income (AHD, 2018). As one can see by the above figures, rural hospitals are at a financial disadvantage.

Heflin and Miller (2012) conducted a study comparing the social service needs of metropolitan areas with those typically encountered in nonmetropolitan rural areas. In their work, human service needs were based on poverty level, education, age, fertility rate, race, and veteran populations. The authors concluded that the social service needs of rural and nonmetropolitan areas are much greater than were those of individuals residing in metropolitan areas. In an earlier study, Elixhauser et al. (2011) examined readmission rates of COPD patients, reaffirming that elderly are more likely to require readmission than are younger individuals earning higher income. In addition, the authors found that individuals residing in the lowest income areas had a 22% higher readmission rate for COPD. Their findings also revealed that elderly individuals tend to have multiple diagnoses, of which COPD is one, this results in a 10% higher readmission rate relative to that noted for younger patients with COPD as the primary diagnosis (Elixhauser et al., 2011).

In their study, involving 13,062,937 patients enrolled in the Medicare Fee for Service Program (FFS), Jencks et al. (2009) examined patterns of diagnosis at discharge and the expected readmission rates. The authors found that 19.6% of study participants were readmitted within 30 days, with CHF, followed by pneumonia, COPD, and lastly psychosis, as the diagnoses resulting in the highest number of readmissions. “Residents of rural areas are disadvantaged in several aspects, including socioeconomics, health behaviors, and health outcomes” ("Cecil G. Sheps Center for Health Services Research," 2017, para. 1).

Knowledge Deficit

In a study conducted over a decade ago, Caldwell, Peters and Dracup, (2005) examined health-related knowledge of 36 rural heart failure patients. These patients were primarily white, married, had a mean age of 71, and ejection fractions of 47%. They found that an education program increased patient's knowledge and self-care. In addition, they noted that, in an urban hospital setting, patients were most likely to have knowledge deficits regarding the importance of a sodium-restricted diet in managing their condition. More recently, Kollipara et al. (2008) studied 97 hospitals in areas and determined "that low health literacy, but not other psychosocial parameters, was associated with low dietary sodium knowledge" (p. 1212).

Yeh, Wu, & Tun (2018) conducted a study that concluded that patient education was related positively to patient satisfaction and patient empowerment. Following a recent qualitative study, Slonim et al. (2013) concluded that increased access to community health programs had a positive impact on chronic disease symptom control. Similarly, Kripalani et al. (2007) determined that missing or incomplete information on discharge summaries adversely affects patient outcomes after hospitalization. In sum, these studies confirm that providing key information to the patient has positive influence on patients' post-discharge health, thus reducing potential for readmission.

Nursing Role

The aim of this project was to identify staff nurses' educational needs regarding barriers to effective discharge planning. While importance of effective discharge planning is not questioned, its success is largely determined by the nurses involved in the delivery process (McHugh, Berez & Small, 2013). Nurses are responsible for caring for their patients and are thus in the best position to determine their knowledge deficit, provide education, and assess their

system support needs upon discharge. Nursing knowledge of the disease process encourages cooperation with disease management after discharge (Davisson & Swanson, 2018). In their study, the authors found that education of both the patient and the family provided needed support for aftercare compliance (Davisson & Swanson, 2018). Almborg, Ulander, Thulin, and Berg, (2009) made more specific recommendations which requires nurses to identify patient's needs and assist with goal setting thus fostering patient participation and potentially improve goal-oriented care after discharge

Mahramus et al. (2012) also advocated for patient education, particularly recommending the widely adopted "teach back" method. The authors studied 158 nurses from four sites who participated in a 20-item pretest and post-test on the knowledge of heart failure education principles. Their findings revealed that, "Only 6.3 % had a passing score of 85% on the pretest where 42.3% had a passing score of 85% or greater on the post test, and 88% achieved at least 85% on the 3-month post-test" (Mahramus et al., 2012, p. 413). The authors also demonstrated that the nurse's ability to teach patients improves significantly with education (Mahramus et al., 2012).

While the value of evidence-based studies are widely recognized, the nurse's role within the discharge process has only recently started to benefit from this approach. Kash et al. (2017) conducted a literature review of pertinent sources published from January 2006 through September 2012. The authors recognized that the requirement to decrease length of hospital stay places nurses at a disadvantage. They must be sufficiently knowledgeable, not only to ensure more rapid discharge, but also provide patients with the necessary education required for positive post-discharge outcomes. Thus, Kash et al. recommended that the nurse's role in the discharge process and planning be thoroughly defined.

Beginning in October of 2012, the CMS began their Readmission reduction program (CMS, 2018). When a rural hospital only discharges patients in the hundreds, every early readmission counts heavily towards the hospital's excess readmission performance. The hospital readmission performance is based on readmissions "of the six measure cohorts: acute myocardial infarction (AMI), heart failure (HF), pneumonia, chronic obstructive pulmonary disease (COPD), coronary artery bypass graft (CABG) surgeries, and elective primary total hip and/or knee arthroplasty (THA/TKA). The excessive readmission rate is based on a hospitals performance on that measures and the payment is related to base operating DRG payments" (CMS, 2018, para, 7).

Role of the DNP Student

Professional Context and Relationship to Doctoral Project

My interest in discharge planning started during my practicum in my master's program. I was working as a Utilization Review/Quality Assurance RN (UR/QA) at a small hospital. I was learning about the Appropriate Care Measures (ACM) and their effects on hospital revenue. As each new ACMs was added each year, I noted that there was a reluctance by staff nurses to comply with the documentation required by the ACMs. They saw additional quality assurance item to be additional work. In my capacity as a QA nurse, I was in the position to gather data and to note in what areas nursing demonstrated a need for improvement. As I did so, it became quite evident that hands on care was not enough.

Role in the Doctoral Project

My role as a DNP student was to determine the staff nurses understanding of their role in the discharge process. Their major contribution to the discharge process is educating the patient

and their family in the management of their specific disease. Evidenced-based literature was used to collaborate the need for staff education in their role as patient educators.

Potential for Biases

At the time the study was completed, I was employed at the facility where the twelve nurses were employed. I did not however, work with these nurses directly or have any personal relationship with any of the nurses interviewed. Chance for bias was kept low by asking all nurses the same questions and by random selection of the participants.

Summary

There is substantial evidence that supports education of patients by staff nurses as a way to provide a patient with a successful discharge. With the occurrence of the CMS readmission reduction program in 2012 (2018), there has been an increase awareness of chronic disease readmissions. One in six Medicare recipients will be admitted to a hospital within 30 days after discharge for a medical condition (Dartmouth Atlas Project and Perry Undem Research & Communications [RWJF], 2013). This amounts to a significant decrease in payments hospitals receive for services performed. This project will identify nurses' perceptions of barriers to effective discharge planning using interviews and content analysis of their responses. Chapter 3 will discuss project design, methods, date collection, analysis and project evaluation plan.

Section 3: Collection and Analysis of Evidence

Introduction

Educating of patients when they are hospitalized is essential to a successful discharge (Jarrell, Alpers, & Wotring, 2011). Patients and their family show higher satisfaction with their hospitalizations and a higher success for post discharge treatment lasting greater than thirty days (Yeh, Wu, & Tun, 2018) The aim of this DNP project was to determine the staff nurses understanding of their important contribution to the discharge process and to determine if there is a need for a nursing educational program to train staff nurses in this educational process.

Practice-focused Question(s)

Effective discharge planning is synonymous with quality care; high quality care separates the good from the excellent. A readmission within 30 days or less indicates that there may be problems occurring someplace with in the discharge planning process (CMS, 2012). A major difficulty with nurses and effective discharge planning is nurses lack the necessary time and resources to effectively plan discharge education as well as identify potential aftercare needs (McHugh, Berez, & Small, 2013). The purpose of this project is to determine nurses' perceptions of effective discharge planning and offer suggestions as to how to assist and design an educational curriculum for the nursing education department.

Sources of Evidence

I reviewed pertinent literature to answer the project questions and elucidate the nurses' role in the identification of barriers to successful discharge and subsequent readmission prevention. This provided a foundation for the present study, as well as revealed gaps in the extant knowledge on this issue. Mulrow stated **"**a systematic integrated literature reviews have been used by researchers to (a) set, rationalize, and revise hypotheses, (b) understand and

minimize pitfalls of previous work, (c) obtain an estimated sample size, and (d) identify important confounding effects and covariates that need to be considered in future studies" (as cited in Im & Chang, 2012, p. 633).

The extensive search for appropriate literature sources resulted in 35 peer-reviewed journal articles, which were subjected to in-depth review. More specifically, following a review 60 abstracts, this writer identified those articles that met the inclusion criteria (relevant subject content, country of origin, and suitable theoretical framework). The articles included qualitative, quantitative, and quasi-experimental studies. In addition, in 16 of the studies, the authors used various types of tables or graphs to summarize the reviewed literature or findings. For example, Heflin and Miller (2012) used a table to list the demographic 'needs' profile, while also providing a color-coded map of the United States to visually depict the key demographic risk.

According to Larkin et al. (2012), nursing leaders need to put into context, for the frontline nurses, the impact of government regulations and its effect on patient care needs. In their study, the authors determined that nursing leadership must educate frontline nurses on the need for quality indicators and the importance of readmission reduction and staff nurses' effect on the financial stability of the medical facility in which they are employed. Similarly, Askren-Gonzalez and Frater (2012) highlighted the need of hospital leadership to provide "sufficient human resources and a clear plan to improve transition of care, identify tool kits to train and educate staff, and track processes to identify improvement opportunities" (p. 221). Naylor (2012) discussed and analyzed the transitional care model (TCM) and its effect on nursing's role noting, the TCM allows for nursing leaders to coordinate and preparing nurses for collaboration with physician and other health care members with patients and their families. Successful

implementation of these plans in practice, however, requires that nurses are provided education and training necessary for ensuring the success of a readmission reduction program.

Given the recent introduction of the CMS Readmission Reduction Program, the literature reviewed as a part of this study was mostly recent, as the aim was to explore the research most pertinent for the present study. This writer used multiple electronic search engines were used for the review and included Google Scholar®, Ovid®, CINHAL Plus®, and PubMed® through the Walden University Library site. The search was conducted using the following keywords: *discharge programs and nursing role, nursing satisfaction and quality care indicators, chronic disease symptom management, nursing and administration role in readmission reduction, knowledge deficits,* and *discharge planning*. The Boolean phrase "and" was used to connect the concepts.

Interpretation of Data

Knowledge Deficit Assessment Tools

Data was interpreted utilizing information gleaned from studies conducted by Breathitt et al. (2018), Kollipara et al. (2008), and Slonim, Benson, Anderson, & Jones (2013). A randomized clinical was utilized by two of the studies (Breathitt et al., 2018) used for the study conducted by Slonim, Benson, Anderson, & Jones (2013). Kripalani et al. (2007) utilized an observational study that investigated communication and information transfer at hospital discharge.

Nursing Perception Assessment Tool

Nursing perception of their role in readmission reduction was assessed with five articles. The first utilized the Chronic Care Model which was developed by the Robert Wood Johnson Foundation (Kennedy-Symonds, 2006). A quasi experimental pre-and post- test was used in Mahramus, Frewin, Chamberlain, Wilson, & Penoyer (2012) study regarding nurses' knowledge

and heart failure. Davisson and Swanson (2018) studied six chronic disease clients from a rural setting. The final article, used for the nursing perception/role portion of this paper developed an evidenced-based discharge process (Manasseh, 2013).

Modern medications and treatments have the capability of keeping chronic diseases in check. Health care advances have the potential to extend expectancy and quality of life. For discharge planning to be effective, the patient must be compliant with the prescribed regime. Every time a patient suffers a chronic disease setback and requires acute inpatient admission, the medical community is seen by CMS as failing the patient. (2012). In 2010, the CMS recognized that 68% of Medicare recipients were individuals with two or more chronic conditions and these individuals used 93% of Medicare spending (Remington, 2014). A patient and his or her family should receive extensive education regarding their chronic disease, community support, access to medications, and transportation to personal care physician appointments (Polster, 2015). By providing more comprehensive care and support, the costs of treatment will decrease, and the individual being treated has the potential for an enhanced quality of life living within their home environment.

The focus of this project is identifying staff nurse's educational needs regarding effective teaching of patients. Even the best discharge plan success is determined by the nurses involved in the delivery process (Pecci, 2013). The nurse's role is to determine knowledge deficit, provide education, and assess for system support needs. This requires a thorough assessment at admission. This was the recommendation based on the findings of a literature review conducted by Nosbusch, Weiss, & Bobay, (2010). They determined that nurses are in a unique position to identify barriers and identify needs for an effective discharge. Kennedy-Symonds (2006) recommends breaking daily goals, such as salt intake, into measurable components and to

recognize the importance of teaching patients to recognize the signs and symptoms of their condition worsening and what actions to take if these symptoms occur. One teaching technique frequently documented is the "teach back" method. Mahramus et al. (2012) studied 158 nurses from 4 sites who participated in a 20-item pre- and post-test on knowledge of heart failure education principles. This study demonstrated the nurse's ability to teach patients effectively improves with education.

As discussed previously, the elderly and veteran populations are at risk for re-hospitalizations. They require a higher level of care management inpatient in order to prevent deconditioning and failure after discharge. Miller, (2002) discusses training needs of nurses performing care with the elderly. The researcher recommended that gerontology be introduced to the nursing school setting as well as be delivered by nursing education in the hospital and clinical setting.

Evidence Gathering

Participants

Twelve staff nurses were randomly selected from the evening and day shifts. These shifts were chosen for the study due to the amount of interaction with the patients. Participants were selected in no order or pattern. Selection was based on visual clues such as: first person in the door of the break room, last one in the office, first individual seen at a meeting. All participants were given the opportunity to refuse and all individuals identities were kept confidential.

Ethical Protection

Participants were chosen to provide equal representation from both evening shift and day shift. Six from each shift were interviewed. Approval for the study was provided by Walden

Universities Institutional Review Board on 1/1/2015 *(*Walden University IRB Approval Number: 2015.01.1 3 18:31:42-06'00').

All were recorded, and all signed an IRB approved permission note. Recordings and permission notes are kept in a locked safe. All participants were provided with my phone number and the IRB's information. No participant is identified by name or position.

Macro-system Evaluation

The Six Sigma model was used for the macro-system portion of the project. It was through use of the six-sigma model that the questions were developed (see Figure 2).

The Six Sigma model DMAIC cycle demonstrates the team process development DMAIC is defined as:

1. Define a problem or improvement opportunity for improvement
2. Measure performance of the process
3. Analyze the process to determine root causes of poor performance
4. Improve the process by attacking the root cause
5. Control the improvement process to hold the gains. (Kelly, 2011, p. 142).

(1) How do nurses perceive their role in the discharge process?

(2) What is it that nurses are doing or not doing to prevent readmission reductions?

(3) How can nursing leadership assist staff nurses to recognize potential issues that may affect discharge success?

(4) What resources are required to allow nurses to provide the necessary assessments?

Figure 2. Questions for the project

Summary

To summarize, the determination for data collection was made utilizing a Six Sigma Approach. The data to be collected was based on 4 key questions developed from this process. The questions were delivered to staff nurses (N=12) from evening and day shifts. The participants were chosen randomly and recorded with their written permission. The nurses were asked to identify barriers to a successful discharge and the nursing staff's role with the patient's educational process.

Section 4: Findings and Implications

The Project

According to Orem's (2006) self-care deficit theory, nurses must extend their care focus beyond the internal disease state. The nurse must recognize external factors affecting the patient to provide care encourages development of self-care skills. In this project, 12 nurses were voluntarily interviewed. Six staff nurses, three nurse supervisors, and three nurse managers participated. The nurses were given three demographic questions. The educational level of the nurses ranged from diploma nurse to master's prepared nurses. The age of the nurse ranged from early 20s to early 60s. All volunteers were female. The registered nurse experience ranged from 3 years to 39 (see Figure 3). All interviews were recorded, and each interview reviewed for commonalities and disparities. The interviews were analyzed for common themes by myself and one social service associate.

Age		**Years**		**Education**	
20-30	2	2-5	4	Diploma Program	1
30-40	3	5-10	2	Associates	4
40-50	6	10-20	3	Bachelors	2
Over 60	1	Over 20	3	Masters	4

Figure 3. The interview demographics

Findings and Implications

Causes of Readmission

In the data summation, common terms were identified, such as a lack of understanding, poor judgment, and noncompliance to describe the causes of patient readmissions. Two themes

derived from the interviews were patient-driven causes and nurse-driven causes (see Figure 4). The nurses were then asked if they could expound on these causes; not one was able to explain how these patient-driven deficits could be rectified. However, as the interview continued, the nurses identified the need for education for both the patient and the nurse. Three of the 12 nurses expressed concern regarding the lack of knowledge of available out-patient services. The nurses with bachelor's and master's degrees all agreed that further education of the nurses would aid in readmission reduction. They used terms such as *increased problem-solving skills, thinking "out of the box"*, and *a heightened ability to recognize patient's psycho-social issues* to describe the benefits of advanced nursing education. The nurses with associate degrees expressed concern as to the patient's educational needs, comprehension, and compliance.

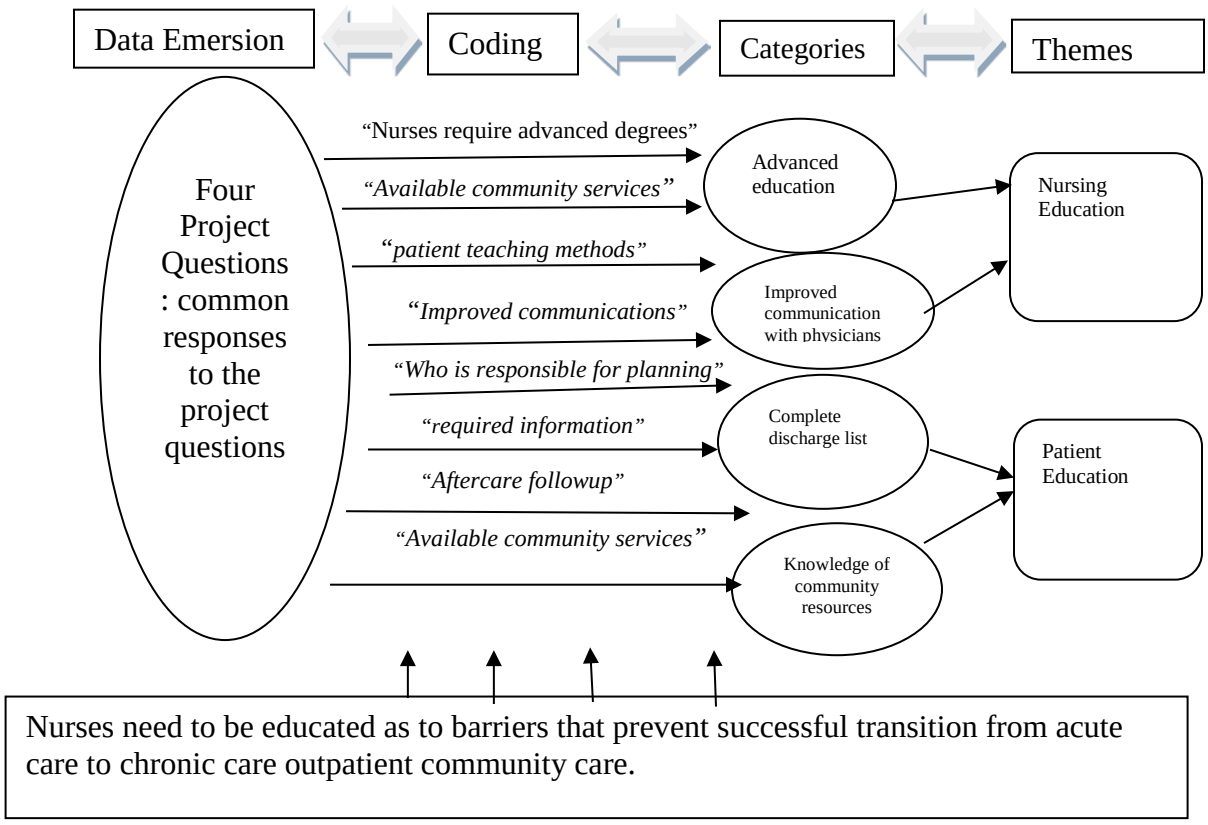

Figure 4. Decision Tree with responses to the four project questions compiled

Nurse-driven causes included a need for improved communication skills, fear of bringing concerns regarding patient's readiness for discharge to the doctor, education regarding teach-back method, and a more comprehensive discharge planning list. Yam et al. (2012) concluded that, that to effectively facilitate discharge planning, a hospital requires a structured and coordinated hospital discharge system in place.

Six of the 12 nurses interviewed stated that if the hospital developed a more comprehensive discharge check list, the nurses would perform more effectively. This statement was interpreted to mean that more items on the list would improve discharge planning. This does not take into consideration the ability of the nurse to effectively teach chronic disease management or to recognize and follow through with barrier identification.

The interviewees identified causes of patient readmission as poor patient education, poor patient compliance, inadequate discharge planning, and poor follow-up in the community. The identified barriers were difficulty with communication skills and a lack of knowledge of available out-patient resources. An identified need of the nurses was educational opportunities regarding the teach-back method for patient education.

Nurses Role in Readmission Reduction

All nurses interviewed identified education of the patient about their disease process as a nurse's primary role in readmission reduction. Two nurses mentioned including family in the education process and three mentioned including aftercare follow up as an important component of discharge planning. Although this one answer was stated by 11 of the 12 nurses, the form of education or type of follow-up, other than personal care physician (PCP) appointment and follow-up with homecare, was poorly identified. Most stated that the education should be completed at discharge. No one identified that education should begin at admission. All of those

interviewed verbalized a desire for the successful discharge of the patient. However, the focus for those interviewed was centered on inpatient care. While they recognized that discharge planning was a part of the patient care process, there was single-mindedness towards the actual task performance of discharge.

Identified Nurse Educational Needs

In the third question of the interview, the nurses were asked to identify education needs related to readmission reduction. The identified education needs were effective communication skills, knowledge of available out-patient resources, effective teaching techniques, and increased insight into how to determine what education is necessary. Nursing leaders will be tasked with the challenge of providing education and guidance regarding discharge planning (Larkin, Lorenz, Rack, & Shatzer, 2012). Classes will need to be mandatory, and management will need to ensure compliance with attendance.

Initiation of educational programs designed to increase and improve teaching skills may have a positive influence on decreasing readmission rates. Communication was specified during three interviews to include physician intimidation. Four of the nurses interviewed had 5 or less years of nursing experience. Their desire was to learn effective communication skills that will improve their interactions with physicians. This hospital is in the process of bringing on board medical interns with a physician instructor who is well thought of in that community. Based on this finding, I recommend that a lead physician present an educational conference on communicating with the inclusion of the physicians (See Figure 5).

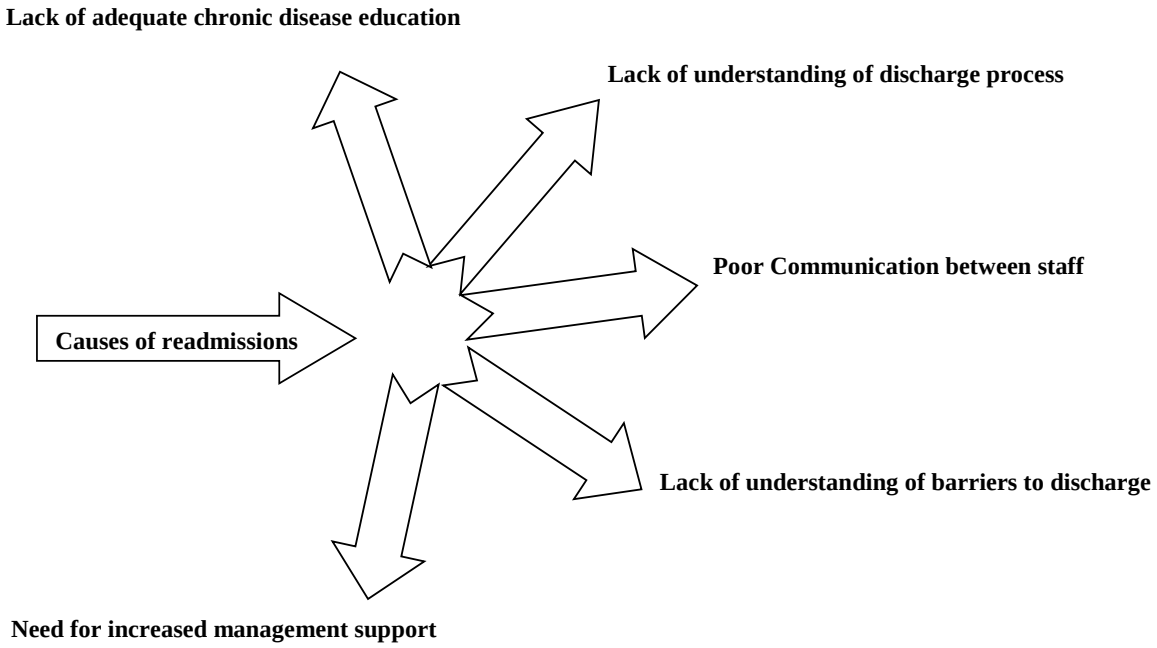

Figure 5. Influence diagram of nurses' educational needs

Providing Transitional Care Multidisciplinary Approach

The fourth and final question required the interviewees to identify nursing interventions with patients that may increase patient success with discharge. The answer that was most often given correlated with effective case management and provision of out-patient resources and follow-up. Greenwald and Jack (2009) concluded that proactive identification of patients, clinician, and system-associated barriers is essential for a successful discharge and requires a multidisciplinary approach. The rural hospital used for this study has begun to integrate its case management and discharge planning with a transitional case manager, increased use of tele-medicine, and usage of home health nursing. The follow-up PCP appointment is made prior to discharge, and the PCP office has been tasked with placing a follow-up call to the patient 72 hours after discharge.

The LACE assessment evaluates the patients' length of admission (l), acuity of illness (inpatient or observation; A), comorbidities (C), and the number of emergency room visits in the past six months (E). Those individuals with a higher LACE Index (≥ 10) have a higher percentage of revisits to the ER within 30 days as opposed to the individuals with a lower LACE Index score (Wang, et al., 2014). The individual patient needs are identified at the morning discharge planning meeting, which includes the hospitalist, case management, social services, physical therapy, occupational therapy, dietary, infection control, and the nursing supervisor. The staff nurses are invited to contribute either through their supervisor or by attendance of the morning meeting. The LACE is used to identify patients who require follow-up by home health care, palliative care, hospice, or skilled nursing facility placement. All these components of the discharge process have been initiated with in the last 18 months.

Nurse Management Implications

Nursing management must address the educational needs of the staff nurses as they relate to patient education, recognition of discharge needs, and communication skills. Nurses need to recognize and use the strengths of the patient as well as identifying the educational and supportive needs the patient and their family may require after discharge. Nurses must be able to communicate effectively with the attending physicians. Nurse Managers can assist staff nurses by providing educational opportunities and supporting enhancement of communication skills (see Figure 6). Support for educational projects by administration would assist in supporting nurse autonomy as well as promoting advanced research.

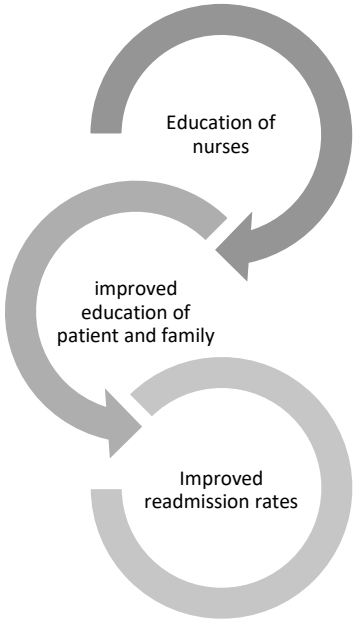

Figure 6. Influence diagram indicating the effect of education on readmission outcomes

Providing Transitional Care

The fourth and final question required the interviewees to identify nursing interventions with patients that may increase patient success with discharge. The answer that was given the most correlated with effective case management and provision of out-patient resources and follow-up. Greenwald and Jack, (2009) concluded that the proactive identification of patients, clinicians, and system-associated barriers is essential for a successful discharge and requires a multidisciplinary approach. The rural hospital used for this study has begun to integrate its case management and discharge planning with a transitional case manager and home health care after discharge. Included in the discharge process improvement is the use of LACE assessments on all admissions. These needs are identified at the morning discharge planning meeting, which includes case management, social services, physical therapy, occupational therapy, dietary, and the nursing supervisor. The staff nurses are invited to contribute either through their supervisor or by attendance of the morning meeting. The LACE is used to identify patients who have a higher readmission potential.

Implications

The evaluation of the responses during the interviews demonstrated a need for an education program designed specifically for discharge planning. The program would need to include barrier identification, identification of available community resources, and improved communication skills that include the teach-back method of patient education. While most nurses recognized the need for patient education, there were few suggestions as to what specific teaching was required. The majority identified patient-driven needs as: patient compliance with medication and treatments, attending first appointment with PCP, and healthcare literacy. Nurses need to recognize that, while the patient owns a large piece of their care, the health care system is the patient's first line of defense. It has only been recently that the focus of patient care has taken a preventative approach.

Education of discharge planning needs to include the physicians as well as the nurse practitioners. There needs to be an understanding between the medical staff and the nurse regarding patient care and discharge planning.

Strengths and Limitations of the Project

This project's strength was exhibited in the consistent responses of the nurses and the comparability with the current literature. The nurses expressed concern for the patients and expressed a genuine desire to improve discharge outcomes. The limitation relevant to this project was the small sample size, though these findings may be consistent with nurses throughout rural Pennsylvania. Expanded research may yield the information to confirm that. Development of educational programs designed to recognize barriers to successful discharge and discharge planning needs will provide an opportunity for an increase in quality health care (see Figure 7). Also, of relevance is the continued need for out-patient education of those individuals

with chronic diseases. Seminars and educational opportunities offered in the community will assist in reinforcing the information taught in the hospital and directly after discharge by home health nurses. Further research which includes a larger sample size and inclusion of more than one rural hospital is recommended.

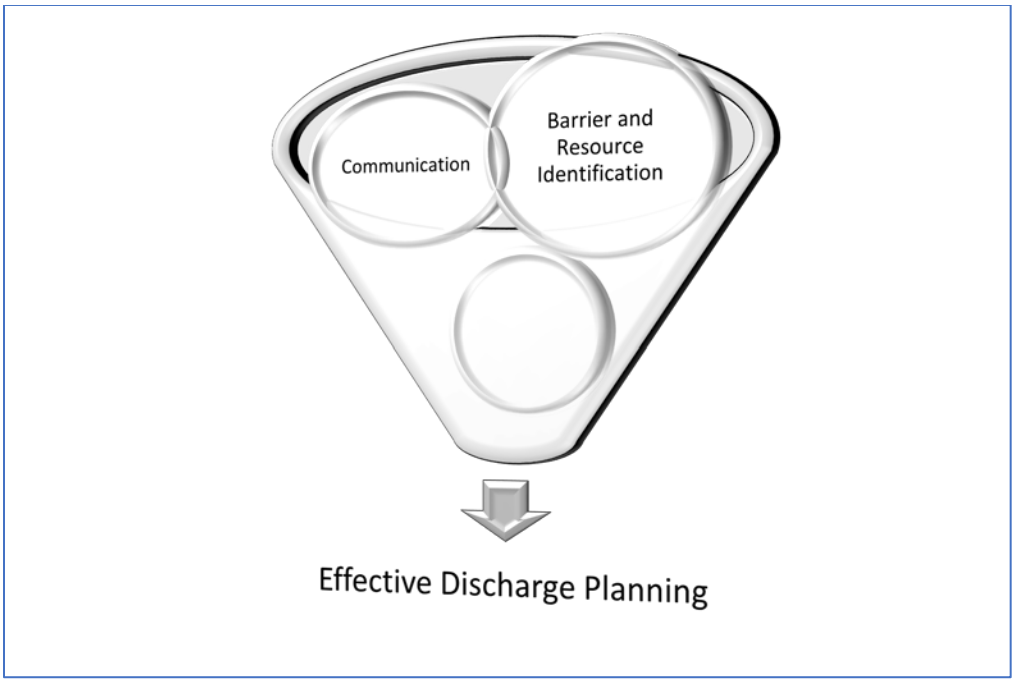

Figure 7. Educational process

Further Research Needs

Continued research needs to include expansion to other rural facilities with a larger nurse population. A larger sample size could be used to determine if the findings of this project are consistent with other rural hospitals. A critical finding in this project was the difficulty nurses had with communicating with the physicians. It would be of great benefit to health care if research is expanded to include physician/nurse communication patterns. Further researchers would determine if there is a correlation between the quality of the communication between the nurse and physician and the quality of patient care. Another area critical to quality patient care is

community resources. Research must be conducted to determine the needs of individuals after acute care and beyond. Community support programs need to be evaluated for their effectiveness and expanded to include rural healthcare.

Summary

Health care delivery is an expensive process. The CMS and commercial insurance companies are demanding quality care for their dollar. One such quality measures is readmission reduction. Health care providers need to decrease readmissions or else face financial penalties. Recognition of barriers to successful discharges, along with aftercare support, is one part of the solution to this problem. Training staff nurses to identify barriers and provide supportive education can improve the quality of discharge planning.

Nurses interviewed identified lack of knowledge of out-patient resources, the need for improved communication skills, and a more comprehensive discharge checklist as areas that require improvement. These findings will be used to provide direction in the development of educational programs. In-service education will be supplied to increase the staff nurses' understanding of the process that is already in place. These in-services will include in-services on communication, time management, and patients' barrier to discharge identification. This conclusion will be delineated into three sections: further research needs, implications for DNP nurses, and implications for the fields of health care.

Section 5: Dissemination Plan

The Institution

The institution where this study took place is just one example of the many rural hospitals throughout western Pennsylvania. The plan to disseminate to all these institutions would to be to introduce a program of study into these hospital systems. This would require the cooperation of the nursing administration and their nursing educators. There would be a need for nursing administrators to recognize the importance of this education and to adjust staff nurses' duties to accommodate the additional time needed to educate their patients.

Implications for DNP Nurses

The DNP prepared nurses must advocate for the advanced education of all nurses as well as advocating for increased government support of rural healthcare. Nurses of all educational backgrounds need to recognize the power of their combined voices. Nurses are bound by a code of ethics that goes beyond the written word. Nurses are advocates for the healthy, ill, and, elderly. It is imperative that nurses keep abreast of insurance reforms and health care cut backs. The government is always searching for ways to cut spending. It is the nurses' duty, as advocates, to be the voice for those who are unable to stand up for themselves. This project has provided an outline as to the needs of the patient transitioning from an in-patient setting to the community. Advanced practice nurses need to develop programs and groups to support these individuals struggling with chronic disease management.

Health Care Implications

The entire health care system (provider, payer, and consumer) would benefit from effective discharge planning and barrier identification. Use of health care resources, both inside

the acute care setting and care after discharge, has the potential to improve the patient's quality of life (Davisson & Swanson, 2018). Health care costs will decrease and care of the health care consumer improved. Patients have a potential for quality of life improvement from a decrease in hospitalizations and an increase in community support. Community support programs, transportation, and financial barriers need to be identified at all levels of health care.

This new era of health care requires the patient be followed throughout all aspects of his or her health and disease process. Cooperation amongst all members of the health care team is essential. Health care professionals in the hospital and community need to work together to identify and implement quality care**.**

Analysis of Self

I started the DNP program at Walden University in June of 2012. There were several mishaps and falls along the way, but I eventually narrowed down my topic to a manageable level. My head was so full of ideas regarding how to help patients and their families, it was difficult to narrow the topic. It took me almost 2 years of analysis to decide what the most important need was, that could directly affect the patient and utilize minimal resources, or at the very least, available resources. That is when I decided that education during hospitalization made the most sense.

I spent over 20 years of nursing career as a psychiatric nurse. Most of my time was spent teaching clients coping skills that would allow them to live amongst others within the community. Education of patients with chronic diseases is not much different. They need to learn to live with their disease and adjust their lives around the disease. Everyone should be able to live their life to the fullest capacity as possible. For many, this requires education and support.

Summary

After dealing with the acuity of an illness, educating the individual and their family on how to live their life with a chronic disease should be a priority of a hospitalization. Once an individual is stabilized and sent home, the patient should have enough knowledge to take care of any minor issue that might arise. Follow -up by a case manager may be necessary. When leaving a hospital, a patient should know when their scheduled personal care physician appointment is, how to recognize the signs of disease exacerbation, how to prevent disease exacerbation, when to call the doctor, and dietary needs. They should leave the hospital with access to a scale, blood pressure cuff, medication refills, follow-up appointment within a week, and transportation to appointments set up. The staff nurse's component to this process is to determine the patient's knowledge deficits and to educate the patient accordingly. Staff education of the patient regarding their disease process is a vital component to a successful discharge and towards a better quality of life.

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