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Discharge Calls and Avoiding Hospital Readmissions

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Walden University

College of Health Sciences

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Wanda Cassavettes

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Walden University

2018

Abstract

Discharge Calls and Avoiding Hospital Readmissions

by

Wanda Lee Cassavettes

MS, Youngstown State University, 2008

BS, Kent State University, 1997

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

January 2018

Abstract

Hospital readmissions are disruptive and costly for patients and hospitals. As hospital discharge instructions are a key nursing responsibility, this project implemented a nurse follow-up phone call intervention within 12–48 hours of patient discharge from an indigent care facility in the Great Lakes region of the United States. The project was designed to understand whether follow-up phone calls from nurses that clarified discharge instructions, symptom management, and medications would be associated with decreased readmission rates within 30 days post-discharge among chronic care patients. The theoretical framework was the health belief model, which proposes that the patient's knowledge of illness severity, susceptibility, and benefits of care predicts his/her health-related behaviors, including self-care. A comparison of the hospital readmission rate prior to 30 days of discharge in the baseline (pretest) group was 77.87%, and 22% in the Post-intervention group within the same facility. Chi-square results showed a significant association between the follow-up calls and decreased hospital 30-day readmission rates, $X^2(1) = 6.605, p = 0.010$. This low-cost intervention can and should be replicated in other indigent care hospital facilities. Similar results may suggest a causal relationship that can later be explored in large scale research studies. This study may contribute to social change by demonstrating a practice that provides reduction in 30-day patient readmissions, which benefits patients' and families', economic and health outcomes.

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Section 1: Nature of the Project

Introduction

Hospital readmissions are problematic for patients and hospitals. Readmissions disrupt the patient's healing process, strain the household budget, and impact family dynamics. Hospitals suffer financially, too, since Section 3025 of the Affordable Care Act (ACA) established the Hospital Readmission Reduction Program, which requires the Centers for Medicare and Medicaid (2016) to reduce payment to hospitals with excess readmissions. Consequently, interventions to prevent readmissions are a primary concern of hospitals.

Readmissions may be caused by insufficient discharge preparation resulting in unpreparedness of the patient and family care providers, and inadequate coordination of the discharge process to home. They may also result from the inability of patients and families to cope with the stress of daily living with a chronic illness (Bobay, Jerofke, Weiss, & Yakusheva, 2010). Discharge teaching is an important part of each patient's care and a nursing intervention. Patients should be instructed and assessed on their understanding of post-hospitalization care so that emergency department visits and/or unexpected hospital readmissions can be prevented (Agency for Healthcare Research and Quality, 2009). Potential positive social impact results from the effectiveness of discharge planning and follow-up, which are important tools that affect patient outcomes and readmissions (Agency for Healthcare Research and Quality, 2009).

For this project, I implemented and evaluated a follow-up phone call intervention within 12–48 hours of discharge to assess and resolve possible issues regarding patients' discharge instructions concerned with symptoms, medication, and self-care. I used the health belief model as a theoretical framework for this study; it proposes that the patient's knowledge of illness severity, susceptibility, and care benefits predicts his/her health-related behaviors, including self-care. The summative outcome of this study was to determine the effectiveness of a follow-up discharge phone call intervention in decreasing readmissions within 30 days post-discharge from the hospital.

Problem Statement

I completed this DNP doctoral project was completed in an indigent clinic with a short-stay facility located in a metropolitan area in the Great Lakes region of the United States. This area has numerous citizens who lack access to healthcare services. Established approximately 30 years ago as a temporary solution to care for uninsured patients, the clinic has grown into a robust operation. At the time of this study, 35 physicians, one physician assistant, and four nurse practitioners were on regular rotation. The clinic does mini-cognitive exams, medication reconciliation and reviews, verification of vaccination status, age-appropriate screenings, health histories, socio-economic appraisals, risk assessments, and nutritional appraisals. The clinic has 50 emergency-room beds, 50 clinic beds for follow-up care, and 50 chronic-care beds where patients can be admitted for up to 3 days. Nurses typically provide discharge teaching on the day of discharge with a printout given to each patient. However, from the months of December

2015 through March 2016, approximately 50% of patients returned for admission within 30 days post-discharge, often due to inadequate shelter, compared to 10% who returned for readmission during the rest of the year (Carroll & Dowling, 2007). This situation involves a complex population whose health issues are compounded by poverty, homelessness, mental health issues, and family disruptions. High readmission contributes to inordinately high expenditure rates for the clinic (Foust, 2007). I expected that addressing this issue with an expanded discharge and transitional nursing approach would decrease the readmission rates, decrease the overall cost of hospitalizations, increase staff productivity, and increase the rate of follow-up care.

Purpose

The goal of this evidence-based practice improvement program was to implement a nurse follow-up phone call intervention to patients within 12–48 hours of discharge aimed at early identification of issues related to patient understanding and ability to comply with discharge plans. Identification of barriers and issues regarding the follow-up plan may lead to the development of improved discharge planning or alternative home-care arrangements. The nurses documented issues which may compound the patient's ability to self-manage in accordance with the discharge instructions, and they worked with the clinic team (e.g., social workers, mental health workers, and physicians) to initiate possible interventions that would prevent the need for hospital readmission of the patient within 30 days post-discharge.

I developed the following guiding practice-focused question for this project: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30 days post-discharge?

Nature of the Doctoral Project

This quality improvement program targeted all patients discharged from the in-patient facility for a period of 60 days during the months of July and August of 2017. The discharging nurse explained that a nurse would like to follow up with the patient for the purposes of checking on symptoms and overall well-being. The patients who were the subjects of this project resided in lower economic status neighborhoods. Often patients will stay in homes of relatives or friends who are reluctant to share phone information (Hansen, Young, & Hinami, 2011). This was a potential obstacle to this study, which nurses addressed by explaining the purpose of the project, thus encouraging patients to provide accurate follow-up contact information. Most of the patients had access to a cell phone or had their own cell phone, which had been provided at discounted rates under the federal communication programs (Federal Communications Commission, 2016).

I maintained a contact sheet, which contained basic demographic information, patient diagnoses, contact history, and information on specific issues that patients were encountering. These issues included a lack of understanding of discharge and medication instructions, and of when to contact the clinic for additional advice and care. I used this information to tabulate barriers/issues and correlate them with readmission rates within

30 days of discharge. The patient information was de-identified for analysis. In some instances, mental health issues interfered with the patient's ability to manage life and health issues in the community, which I noted and categorized separately for final analysis.

Significance

The stakeholders for this project included the target population, the staff and volunteers from the clinic, and the clinic donors. I anticipated cooperation from the target population because the project would promote better health for themselves, which would be a benefit to the community. The staff from the clinic gained better insight into discharging patients for follow-up care to reduce readmissions. Giving the staff the responsibility of contacting patients to reinforce the understanding of discharge instructions has resulted in improving communications and client/caregiver trust. Through the involvement of the targeted population, clinic staff, volunteers, and clinic supporters, the program facilitated the identification of issues, interests, and resources within the community that could reduce the 30-day hospital readmission rate.

Preventing readmissions reflects an improvement in the patient's health status, thus improving family dynamics and reducing financial pressures. Preventing readmission also reflects positively on the financial bottom line of the hospital and allows for more efficient coordination of staffing and material resources (Foust, 2007). A nursing intervention to prevent readmissions involves transitional care, an integral part of discharge planning for complex low-income patients. Transition of care is the movement

of patients between the professional healthcare environment and home-based care in which the intervention addresses the needs for educating the patient on self-care after discharge. Transitional care incorporates the promotion of safe and timely passage of patients between different healthcare settings. Excellent transitional care is significant for the elderly and their family caregivers who may be expected to deal with multiple complex conditions and a variety of therapeutic regimens. Many patients are under the care of a variety of healthcare providers, which increases their susceptibility to breakdowns in care compliance (Jencks, Williams, & Coleman, 2009). Because of these major factors in the healthcare system, there has been a greater need for transitional care services. The health belief model proposes that the patient's knowledge of illness severity, susceptibility, and care benefits predicts his/her health-related behaviors, including self-care (Glanz et al., 2015). The health belief model fit this project involving 30-day readmissions because it provided me a framework for focusing on the attitudes and beliefs of individuals (Glanz et al., 2015). In this study, discharge planning with follow-up phone calls was shown to be an important tool impacting patient outcomes and hospital readmission.

Summary

Preventable hospital readmissions are problematic to the patient, the family, and hospitals as well. The overall stress for the patient and family, and the financial strain on the healthcare system mark the importance of searching for solutions to this problem. This study shows that discharge teaching and nursing follow-up during the transition

phase between hospital and home care lead to better quality of care. In the next section, I will explain in detail the concepts and theories I used while designing the project, and will then describe the role of the program.

Section 2: Background and Context

Introduction

I conducted this study in a free clinic in a metropolitan area of the Great Lakes region of the United States where an inpatient unit was experiencing a 10% rate of readmission prior to 30 days post-discharge. The goal of this evidence-based practice improvement program was to implement a nurse follow-up phone call intervention to patients within 12–48 hours of discharge aimed at early identification of issues related to their understanding and ability to comply with discharge plans. At the start of this project, I anticipated that identification of barriers and issues regarding the follow-up plan would lead to the development of improved discharge planning or alternative home care arrangements. The nurses documented issues, which facilitated improvement in patients' abilities to self-manage in accordance with the discharge instructions. The nurses worked with the clinic team (e.g., social workers, mental health workers, and physicians) to initiate possible interventions to enable patients to remain in the community. The study's guiding practice-focused question was: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30 days post-discharge? In this section, I will review the concepts, models, and theories I used to develop this project before discussing the project's relevance to nursing practice, local background and context, and my role as DNP student.

Concepts, Models, and Theories

The Donabedian model (Hirschman, Shaid, McCauley, Pauly, & Naylor, 2015), which specifies a structure for exploring health services and assessing the quality of healthcare in a given place, served as the overall conceptual model for this quality improvement project. Healthcare organizations use the model to evaluate care in three dimensions: structure, process, and outcome (Hirschman et al., 2015).

The Donabedian model is concerned with the setting in which care is provided, which includes sufficient facilities, satisfactory equipment, qualified care providers, and well-run administration programs (Hirschman et al., 2015). The process part of the model addresses whether care is delivered in conditions that are suitable, acceptable, and competent (Hirschman et al., 2015). Finally, the outcome pertains to the end effect of healthcare on patients. Many of the improvements of the outcomes are based on function, recovery, or survival, which are usually considered concrete and precisely calculated (Hirschman et al., 2015; see Figure 1).

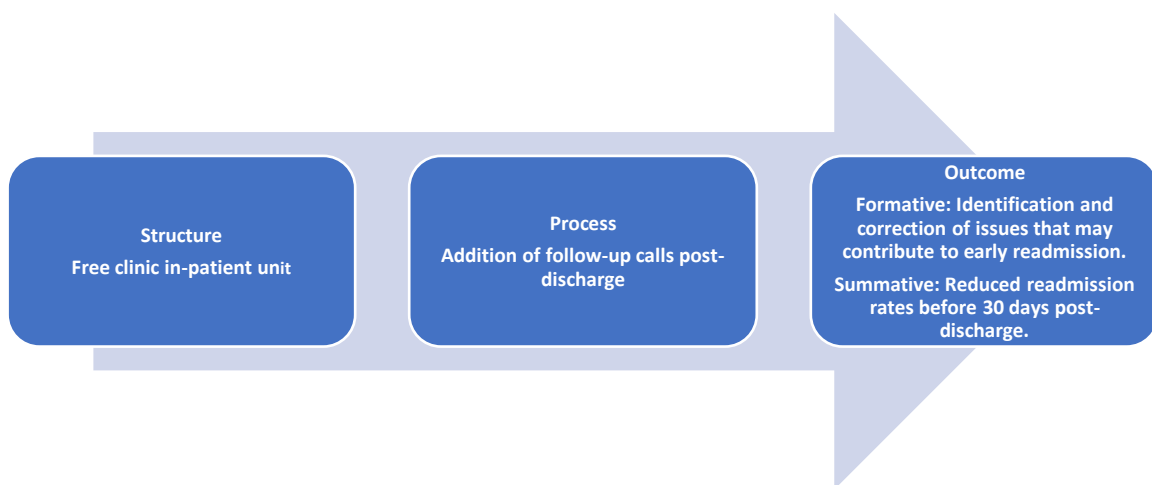


Figure 1. Donabedian model of healthcare.

Figure 1 shows the structure (the clinic), the process (addition of follow-up calls by the nursing staff), the formative outcome (identification and correction of issues that may contribute to early readmission), and the summative outcomes (reduced readmission rates). The actual intervention with post-discharge nursing calls was based upon the health belief model. Social psychologists Hochbaum, Rosenstock, and Kegels developed the health belief model in the 1950s while working for the U.S. Public Health Services (Glanz et al., 2015). Developed because of the failure of free tuberculosis health screening programs, researchers have used the health belief model to explore both long-term and short-term health behaviors. One of the first studies that used the health belief model examined sexual risk behaviors and the transmission of HIV (Glanz et al., 2015).

The health belief model is based on two health-related behavior factors: (a) the overall appeal of being healthy when faced with illness and the prevention of sickness, and (b) the general course of action the individual takes within the system they trust to help them (Glanz et al., 2015). This model centers on the conviction and motivation of the individual receiving the care as it relates to the system that may help the individual to achieve the goal of better health (Glanz et al., 2015). The population served at the free clinic involved in this study has been marginalized by the current health system. Building trust is an important factor in motivating the patient to assume better self-care.

Relevance to Nursing Practice

Transitional care is a service that offers a link between quality of care during and after hospitalization for high-risk patients. The focus of transitional care is to avoid

unfavorable outcomes for patients through key strategies such as discharge planning and care coordination (Naylor, 2012). Research by Harrison, Hara, Pope, Young, and Rula (2011) showed the effectiveness of project that used the transitional care model and included a telephone program designed to prevent readmissions of heart failure patients. In this program, the discharge process ensured that the patients were prepared to go home, were informed about their diagnosis, and were knowledgeable about their treatment plans (Harrison et al., 2011). Harrison et al. found that patients' post-discharge understanding reduced readmission rates as a result of the post-discharge telephone programs. Success was attributed to the fact that telephone programs were less exclusive to the participants than face-to-face interactive visits. By employing the telephone program, unnecessary readmissions were avoided because issues were addressed, such as post-discharge medication errors (Harrison et al., 2011). The intervention decreased the readmission rates of that population and improved the quality of care (Harrison et al., 2011).

The population of uninsured and lower-income patients in the clinic setting used for this study did not have transitional care services. It included adults who suffer with persistent disorders. They are overwhelmed by risk factors that affect daily living, such as social barriers, challenges in healthcare needs, and episodes of acute illness. In order to address these problems, it was necessary to identify strategies that would improve the care and overall results for this population (see Hirschman et al., 2015).

Two key barriers marked this population's need for assistance: (a) many individuals did not have access to healthcare because of the lack of health insurance coverage, and (b) many did not have a traditional resource for care. A lack of health insurance leaves many individuals unable to seek healthcare because it is unaffordable. This unfortunate circumstance forces individuals to decline any kind of care, even when they recognize that they need it. Many healthcare professionals maintain that people should have a standard source of care that would decrease economic barriers; a standard source of care would enable people to obtain the care that they need (Centers for Disease Control and Prevention, 2004). Overcoming these barriers (lack of insurance and lack of healthcare services) could unlock the doors for individuals to seek access to healthcare services. It would allow individuals to acquire trusting relationships with healthcare providers so that they might receive the help they need.

The Centers for Medicare and Medicaid Services established penalties for healthcare organizations that exceed the expected levels of 30-day hospital readmission. These penalties can amount to as much as 30% of the annual payments from the Centers for Medicare and Medicaid Services (Centers for Disease Control, 2004). Visits to the hospital emergency room following discharge are also counted as hospital readmissions (Centers for Disease Control, 2004). Understanding the cause of high readmission rates allows the institution to develop a plan to reduce the risk of 30-day readmissions, thereby, reducing fines. The 30-day readmission fines could also be reduced by admitting the patient into a skilled nursing facility instead of the hospital, and by improving medical

diagnostic codes (Mesko et al., 2014). Overstay policies allow patients to be discharged before the accepted amount of days as recommended by medical diagnostic codes. This practice creates a special circumstance if the patient returns to the hospital within 24 hours, in that it will not count as a 30-day readmission (Mesko et al., 2014). A precarious time for hospital readmissions is within the first 36 hours after discharge because readmission during this time can frequently be attributed to the patient not understanding discharge instructions, not filling medications, or not calling for a follow-up visit to the provider (Coleman & Berenson, 2004).

Interventions should help reduce the 30-day readmission rates by providing patients with education before discharge, follow-up plans, and medications. Medication reconciliation, whereby an accurate medication list is provided, combined with the teach-back method, in which the patient communicates the healthcare purpose and plan of action back to the healthcare provider, bridges the gap in communication between the patient, nurse, hospital, and provider. The teach-back method is a method that aims to increase peoples' understanding of the disease information being communicated in a health education session by asking them to repeat back key points of the instruction (Ha Dinh, Bonner, Clark, Ramsbotham, & Hines 2016). In a study by Ha Dinh, Bonner, Clark, Ramsbotham, and Hines (2016), the teach-back method was used to increase adherence and self-management among people with chronic disease. In the study, the teach-back method exhibited positive effects in a wide range of healthcare outcomes as

well as the reduction of hospital readmission rates. The most positive outcome of the study was the improvement of self-care (Ha Dinh et al., 2016).

Other interventions include follow-up phone calls to the discharged patient, ensuring that the patient has the phone number of a healthcare provider who is available at any time to respond to questions or problems, and follow-up post-discharge home visits by nurses (Coleman & Berenson, 2004). Current standard practice allows nurses to give written discharge instructions and prescriptions to the patient without going over them (Coleman & Berenson, 2004). In my project, nurses provided teaching before discharging the patient, which included the teach-back method to increase patient understanding. This project increased patient understanding and compliance through discharge education combined with follow-up phone calls to provide care, thereby reducing readmissions.

In their study, Morony et al. (2017) found that telenurses using the teach-back method on the populations who used a maternal and child health helpline had positive effects. The method the researchers used in this experiment included focus groups and telephone interviews, transcript analysis, and review of nurse and caller data. Overall, the teach-back method was beneficial to the patient as well as the telenurses because it invited patients to ask questions, review action plans, and close calls with a summary overview (Morony et al., 2017). Furthermore, many nurses and patients affirmed that the technique aided in the empowerment of self-care and helped calm patient anxiety (Morony et al., 2017).

Relevance to Nursing Practice

Nurses have traditionally assumed the responsibility for discharge education from acute care facilities. The first 36 hours post-discharge is often precarious for patients because they may not understand discharge instructions, fill medication prescriptions, or call for a follow-up visit to the provider (Coleman & Berenson, 2004). In this study, I expected that interventions would reduce 30-day readmission rates by providing patients with education before discharge, follow-up plans, and medications. Medication reconciliations and the teach-back method were implemented to bridge the gap in the communication between the patient, nurse, hospital, and provider (see Ha Dinh et al., 2016). Follow-up phone calls to the discharged patient were used to ensure that the patient had a phone number to call at any time with questions or problems. Another valuable intervention involved having nurses do follow-up post-discharge home visits (see Coleman & Berenson, 2004). This study has contributed to the literature on nursing interventions during the transition of care immediately after discharge for under-served low-income urban populations.

Local Background and Context

The mission of the clinic that I used in this study is to address community health needs by providing the highest level of quality healthcare and related services with respect and compassion to improve health of the community, families, and individuals, regardless of their ability to pay.

The hospitals in the area have the highest national average for patients being readmitted within 30 days of discharge (Dartmouth Atlas, 2013) . Hospitals in the Great Lakes regions have been expanding efforts to reduce readmission rates. Strategies that have been implemented include promoting a tighter association between patients and physicians and having nurses make follow-up calls or visits after discharge. Area administrators also concur that greater participation in home-care services is greatly needed.

The need for conducting this quality-improvement project at the free clinic resulted from the clinic's review of the annual overall cost of readmissions. Nationally, 30-day readmissions to the hospital cost about \$26 billion per year (Jencks et al., 2009). Approximately 20% of Medicare patients are likely to be readmitted in fewer than 30 days post-discharge (Jencks et al., 2009). I anticipated that by improving discharge education and developing new follow-up strategies to be very beneficial to reduce 30-day readmissions rates after discharge. Strategies for improving the quality of discharges included the use of patient-focused approaches such as a discharge education program, patient feedback before discharge, and follow-up phone calls to help reduce 30-day readmissions. Another benefit involved providing patients with assistance in completing applications for insurance. Some patients benefitted from help finding primary healthcare providers with whom they felt comfortable. These strategies enabled individuals to take control of their own health.

The cause of many readmissions can be traced to problems in the local economy. Economic recession that causes companies to close results in the large-scale loss of jobs, many of which provided essential healthcare coverage (Jencks et al., 2009). This presents a significant problem for free clinics, given the prospect of high readmission rates due to the resulting lack of healthcare. The lack of healthcare is associated with individuals who lack insurance, lack financial stability, and lack trust for a healthcare system that is unable to provide them with adequate service (Hansen et al., 2011). High readmission rates contribute to higher expenditure rates for the clinic and are the main source of wasted preventive health resources (Hansen et al., 2011). This issue has decrease the readmission rates, decrease the overall cost of the hospital, increase productivity, and increase the rate of follow-up care.

The Role of the DNP Student

Having worked for the past few years in the clinic that served as my study site, I had observed services being cut with the unfortunate result of many individuals being unable to get the services they needed. Through this study, I addressed the problem of the consistent return of patients who were readmitted for the same issues because they had not been taught how to take care of themselves after being discharged. The aim of this research was to demonstrate that proper education, along with additional care, could prevent the need for the patient to return to the hospital with the same ailments.

My role in this research project was to promote quality of life by helping the community to become healthier. A worthwhile goal was to facilitate a better connection

between the healthcare system and patients in the community. As a result of this project, the clinic and the patient developed a better relationship in which the patient was encouraged to ask for help that would contribute to a healthier lifestyle.

Personal perspectives may have affected me while conducting this research, requiring metacognition of bias. In order to address bias, it was necessary to set aside personal concerns and adopt a professional and objective approach while conducting this research. It was imperative to focus on the positive ways the project would assist the individuals who stood to benefit from the research. To facilitate a successful outcome, it was valuable to have confidence in the project and in the individuals who were involved.

Summary

In this project, I used the Donabedian model of structure, process, and outcome as the overall framework (see Hirschman et al., 2015). The project intervention carried out in this research was based upon the health belief model. It involved follow-up phone calls conducted by nurses to ensure patient understanding and compliance of discharge instructions. The expected result was the decrease of 30-day post-discharge readmissions. This has had the potential to provide enormous benefits to patients and hospital administration. In the next section I discuss collection and analysis of the evidence.

Section 3: Collection and Analysis of Evidence

Introduction

The free clinic that served as the site for this study is in a metropolitan area in the Great Lakes region of the United States. It has an inpatient unit that had been experiencing an increased rate of readmissions prior to 30-days post-discharge. This evidence-based practice improvement program was designed to implement a nurse follow-up phone call intervention to patients within 12–48 hours of discharge aimed at early identification of issues related to patient understanding and ability to comply with discharge plans. Identification of barriers and issues regarding the follow-up plan has the potential to inform the development of improved discharge planning or alternative home-care arrangements. The nurses who facilitated this study documented issues that were compounding patient inability to self-manage in compliance with the discharge instructions. They worked with the clinic team (e.g., social workers, mental health workers, and physicians) to initiate interventions designed to keep the patient in the community and out of the hospital.

Practice-Focused Question

The guiding practice-focused question was: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30 days post-discharge?

The growing concern has been to reduce healthcare spending by reducing the rate of readmission to the hospital. Current hospital protocol had been focused on releasing patients from hospital care with discharge instructions as efficiently and swiftly as possible. This practice risked compromising patient understanding of the hospital discharge instructions, which may have remained unclear to the patient. Follow-up calls from a nurse provided a low-cost way to reinforce the information provided in discharge instructions, including when to make follow-up appointments and when to take medications. According to the Agency for Healthcare Research and Quality (2009), “45 percent of patients that do not understand the discharge information are likely to be readmitted to the hospital or have an emergency room visit with less than 30 days” (p. 45). Closing this gap had the potential to result in a decrease in hospital readmission rates, and therefore a substantial cost savings to the hospital. I expected that closing this gap with improved communication and understanding of discharge instructions would reduce the 30-day readmission rates.

Sources of Evidence

The discharging nurse informed each patient that a nurse would be calling them within 48 hours after discharge to see how they were recovering and to answer any questions that they might have. The nurse requested a valid phone number from the patient and forwarded the discharge summary to me, who conducted the follow-up calls. The calls followed a template so that I could record the information (see Appendix A). I used this information to determine any issues that needed resolution in order to prevent

readmission. The information was based on the key areas that commonly provoke readmission: medication understanding and compliance; increase in pain or other symptoms; follow-up appointments; and socio-economic issues, such as housing, nutrition, or health literacy (Jin, Sklar, Min Sen Oh, & Chuen Li, 2008). Medication review consisted of teach-back and ensuring that the patient had the appropriate medications. Increase in pain or other symptoms were referred for physician follow-up. The nurse ensured that the patients knew when to return for out-patient follow-up care. Any psycho-social issues were referred to the clinic social worker. Data on readmissions prior to 30 days were derived from medical records.

Published Sources and Outcomes

Sources of scholarly evidence I used in this study included resources from the Centers for Medicare and Medicaid Services (CMS), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), the Cochrane Database of Systematic Reviews (CDSR), Index Medicus (MEDLINE), Ovid Nursing Journals, and Patient Safety and Quality Healthcare (PSQH). Key search terms included *readmission*, *discharge teaching*, and *causes of readmission*.

The literature review revealed that follow up care is inadequate and, as a result, readmission rates are up. Weber (2014) reported that more than 80% of nurses and doctors do not take the time to properly provide discharge information to the patient. Furthermore, hospitals with provisions for follow-up call programs frequently are insufficiently staffed to cover this area. Weber's study was focused on the last 5 years

when hospital readmissions have become a serious concern. Findings showed that the most common discharge mistakes include improper discharge teaching, which can lead to increased readmissions, and the lack of telecommunications, which can leave patients with questions that direct them back to the hospital (Weber, 2014).

Evidence

All patients being discharged from the free clinic in-patient facility for a period of 60 days during the months of August and September of 2017 were invited to participate in the study, which resulted in a total sample of 37 patients. Patients were required to have a working phone number and were required to provide the best time to call. They agreed to return phone calls if they missed a call, and to call the phone call center if they had any questions. The study was limited to those over 21 who did not have a primary psychiatric diagnosis. Age and gender of the participants were not recorded in the study. I compared the 37 participants to 50 patients who did not receive the follow up phone calls that were part of this project. The healthcare medical records provided the data for the 50 patients who did not receive the follow up phone calls.

I assigned the participants in this study were assigned a number from 1 to 50 on the data sheets, and no names were used to protect participant confidentiality. Any participant could withdraw at any time from the project for any reason, and I maintained the privacy of the patient with ethical protections throughout the study. Participant incentives for staying in the program included increased communications with the healthcare provider, knowledge about their medical conditions, and medications that

could improve health. Medications and transportation from the clinic were provided free of charge. The free clinic administration agreed to support this project, and the Walden IRB also reviewed and approved this project. The IRB approval number for this study is 0453049.

Analysis and Synthesis

Data

I entered all data into SPSS, 24.0. After the data was entered, the variables were run using frequency tables to check for outliers, missing data, and data entry errors. Outliers were checked using boxplots for significance, and missing data was filled in and coded as -999. I reviewed data entry errors to provide the correct scores, or entered them as missing values.

Participants

I used descriptive statistics to group data into understandable units (Kateri, 2014). The follow-up survey had five nominal questions that were presented as frequency distribution data along with the number of participants in each group. There was no other demographic data gathered.

Data Analysis

The guiding practice-focused question was: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30-days

post-discharge? In order to answer this question, I gathered the readmission rates of 50 random patients prior to the actual intervention to establish a baseline 30-day readmission rate. Next, the readmission rates for the sample participants were gathered after the intervention. The main variables were time (baseline and post-intervention) and hospital 30-day readmission (yes or no). Both time and hospital 30-day readmission were discrete count nominal variables. When there are two independent nominal variables and the goal is to establish if the two variables have a statistically significant association, a chi-square-test of independence can be used (Kateri, 2014). Thus, I used a chi-square test of independence to see if there was a relationship between time and hospital 30-day readmission rates.

Synthesis

By making discharge phone calls to the participants, the intervention process made it possible for the program to engage the participants in their own care. Interventions that were provided over the phone included reminding the participant of the date and time of the next scheduled appointment, reviewing and repeating discharge instructions, making referrals to social workers, encouraging participants to call the clinic any time with questions, and responding to changes in condition or in an emergency.

Summary

The purpose of this research was to improve hospital readmission rates and to facilitate good communication between the community and the clinic with the intention of improving services provided at the clinic. I inspected all gathered data to ensure that

the information was correct. In Section 4, I explore the results of the information gathered in this study.

Section 4: Findings and Recommendations

Introduction

Hospital readmissions are problematic for patients and hospitals. Readmissions disrupt the patient's healing process, strain the household budget, and impact family dynamics. Hospitals suffer financially, too, particularly since Section 3025 of the ACA established the Hospital Readmission Reduction Program, which requires the Centers for Medicare and Medicaid Services (2016) to reduce payment to hospitals with excess readmissions.

Epstein (2009) attributes the high readmission rates experienced in the American healthcare system to inadequate communication with the patient resulting in the failure of timely physician follow-up. In this project, I implemented and evaluated a follow-up phone call intervention within 12–48 hours of discharge to assess and resolve possible issues regarding discharge instructions concerned with symptoms, medications, and self-care.

The study's guiding practice-focused question was: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30 days post-discharge? The goal of this evidence-based practice improvement program was to implement a nurse follow-up phone call intervention to patients within 12–48 hours of discharge aimed at early identification of issues related to patient understanding and ability to comply with discharge plans. The purpose of the project was to initiate possible

interventions that would prevent the need for the patient to seek readmission to the hospital within 30 days post-discharge.

Findings and Implications

Participants

I used descriptive statistics to group data into frequency distributions (Kateri, 2014). Fifty patients served as the baseline group, 50 participated in the intervention group, and 37 patients is the total after the dropout for the intervention group.

Baseline group. In the baseline group of 50, there were 21 (42%) participants who were readmitted within 30 days. Out this group of 21 participants, there were 4 (8%) re-admitted due to an overdose, and 17 (34%) due to inadequate shelter. Further, 11 (22%) visited the emergency room: 9 (18%) due to inadequate shelter and 2 (4%) for drug use. Only 2 participants (4%) in the baseline group attended the designated follow-up visits.

Intervention group. Of the original 50 participants, 13 (35%) participants were not included in the final calculations: four (10.8%) were eliminated because they could not be contacted, six (16.2%) succumbed to death by drug overdose, two (5.4%) died of gunshot wounds, and one (3.7%) died of wounds inflicted by stabbing.

In remaining group ($n = 37$), there were 6 (16.2%) participants who were readmitted within 30 days due to inadequate shelter. Three (8.1%) visited the emergency room to get medications refilled. Thirty-two (86.5%) participants attended follow-up visits with no reports of an emergency room visits.

Data Analysis Results

The guiding practice-focused question was: Does a nurse follow-up phone call program result in problem identification that could lead to an altered plan of post-discharge care and, ultimately, a decrease in hospital readmission rates within 30 days post-discharge? The hospital readmission rate prior to 30 days of discharge in the baseline was 77.87% and 22% in the intervention group. The chi-square results indicated that there was a significant association between the follow-up calls and hospital 30-day readmission, $X^2(1) = 6.605, p = 0.010$ (see Table 1 and Figure 2).

This indicates that 30-day readmissions were significantly higher in the baseline group, implying that the intervention may have had an impact on lowering the number of hospitalizations. The only hospital re-admissions in the intervention group were related to lack of shelter. The 13 participants who did not complete the project from the sample was due to the nature of the social environment in which the participants lived.

Table 1

30-Day Hospital Readmission Rates of Baseline and Post-Intervention Patients

Variable	Hospitalized	Not hospitalized	Total
	Baseline (N = 50)		
	<u>n = 21</u>	<u>n = 29</u>	<u>N = 50</u>
Interruption of variables in %	42.0%	58.0%	100.0%
% within 30-day readmission	77.8%	48.3%	57.5%
	Post-intervention (N = 50)*		
	<u>n = 6</u>	<u>n = 31</u>	<u>N = 37*</u>
Interruption of variables in %	16.2%	83.8%	100.0%
% within 30-day readmission	22.2%	51.7%	42.5%
	Total		
	<u>n = 27</u>	<u>n = 60</u>	<u>N = 87</u>
Interruption of variables in %	31.0%	69.0%	100.0%
% within 30-day readmission	100.0%	100.0%	100.0%

Note. * Originally there were 50 post-intervention participants (N = 50), however, there were 13 (35.0%) of this group who did not finish the project, four (10.8%) were eliminated because they could not be contacted, whereas six (16.2%) succumbed to death by drug overdose, two (5.4%) died of gunshot wounds, and one (3.7%) died of wounds inflicted by stabbing.

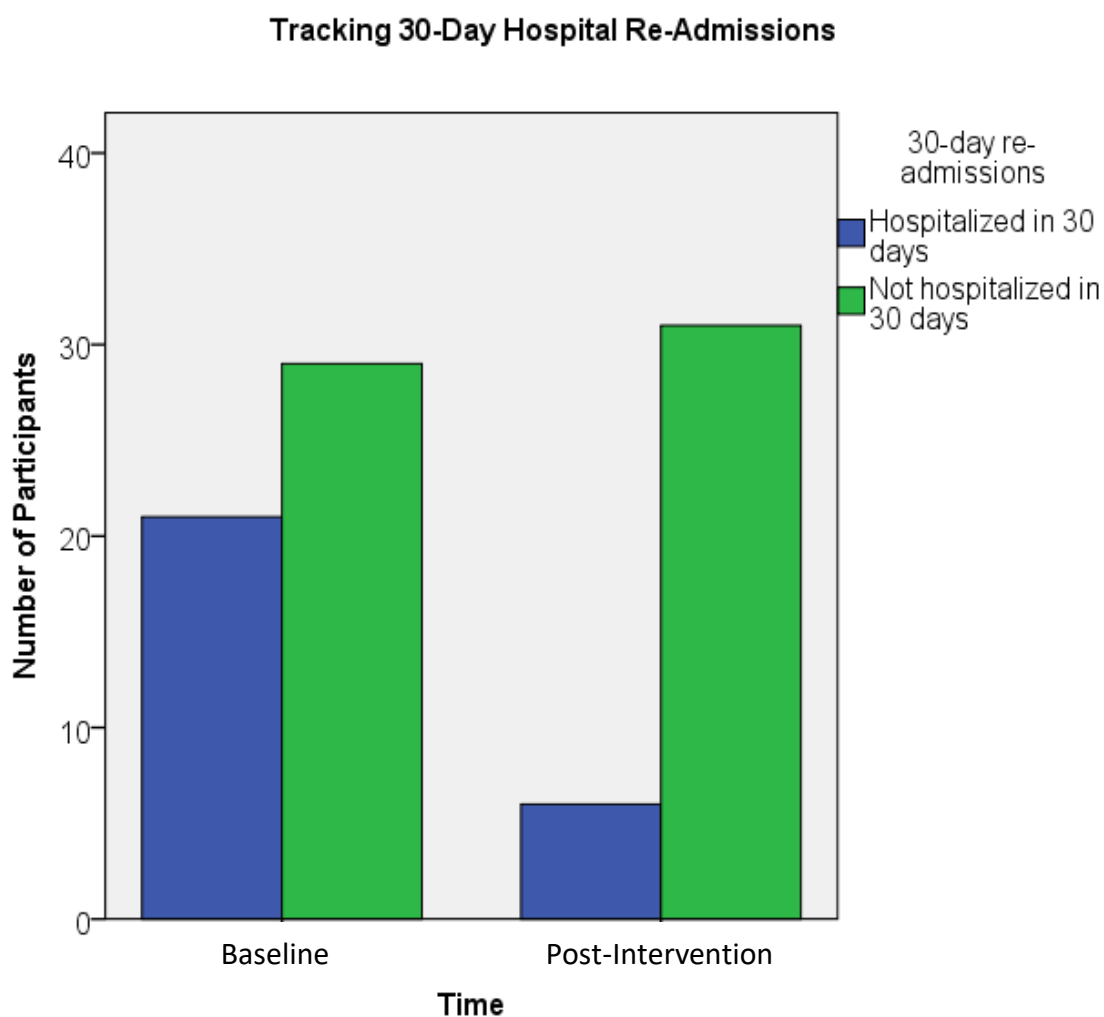


Figure 2. Tracking 30-day hospital readmissions. This figure illustrates the difference between hospitalization rates from baseline to post-intervention.

Nursing Interventions

When the nurses made the post-discharge calls to the participants, they found that the early intervention of clearly communicating post-discharge instructions as well as the teach-back method worked. By utilizing the teach-back method, the nurses reported that it was beneficial in that the patient was able to repeat the information that had been taught

a few days later. The nurses also reported that when the teach-back method was fully applied at post-discharge, the results showed that there was an improvement in the patients' understandings of what had happened during their visit along with full understanding of how to take care of themselves. Furthermore, it decreased the number of call-backs to repeat instructions and decreased the number of cancelled follow-up appointments. Additionally, nurses acknowledged that the teach-back method had improved patients' overall satisfaction. (see *Figure 3*).

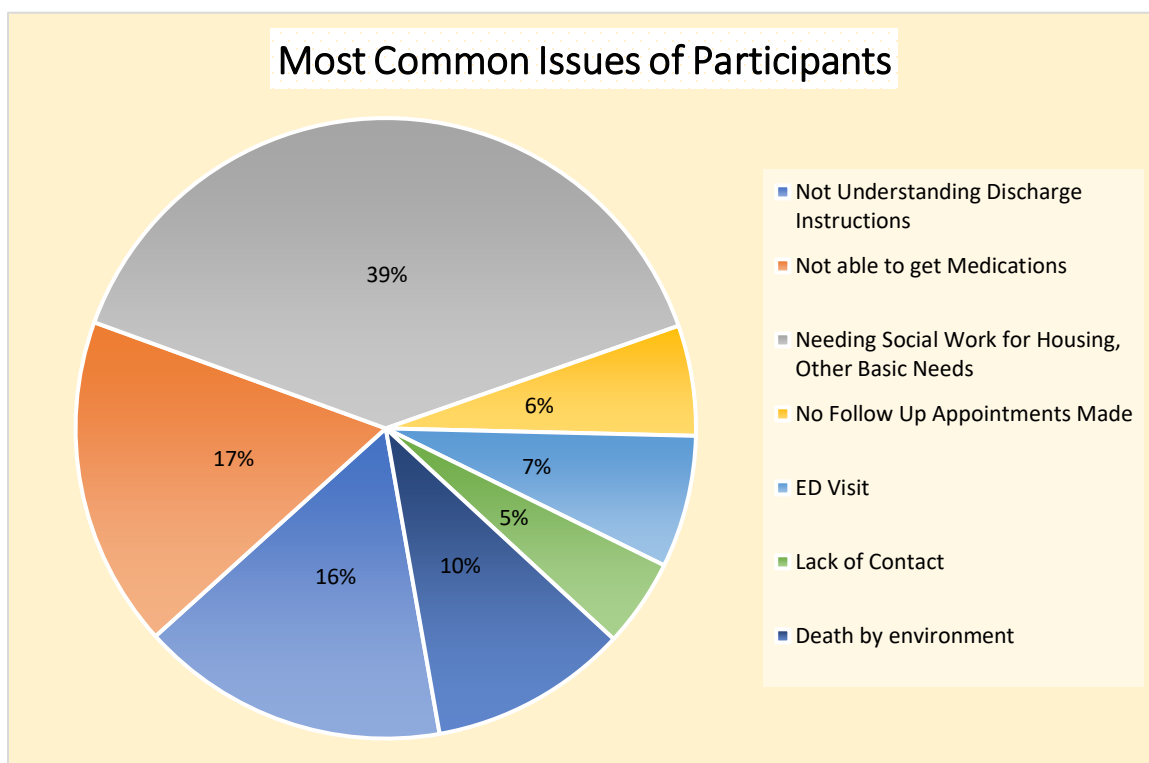


Figure 3. Most common issues of participants

An unexpected finding was that patients frequently initiated contact with the Clinic prior to their scheduled phone call so that they did not miss the call when it came. A subset called the clinic daily to report their progress, possibly indicating the need for the social support of the health team. This is an at-risk population with significant socio-economic challenges, including housing.

Recommendations

The goal of this evidence-based practice program was to implement a nurse follow-up phone call intervention to patients within 12–48 hours of discharge. The intent of this program was the early identification of issues related to patient understanding and ability to comply with discharge plans. Based on the results, the intervention was successful; the readmission rates had dropped from 21 participants to 6 participants in an exceptionally high-risk population. Nevertheless, there is a need for more advanced follow-up instructions given to the patients as well as refinement of the teach-back method. I developed the overall recommendations based on the participants who were reached by telephone. The plan that was initiated for the clinic was based on the clinic never having a true discharge or follow-up protocol. This was the first time this kind of program was introduced to the clinic. Clinic leaders supported having a more aggressive plan to decrease the readmission rates by implanting a better way to restructure the discharge plans as well as the teach back method, by having a better incentive for

reaching the unreachable, and by making sure that all patients have some kind of recognition of procedure for aftercare.

One of my primary recommendations is that the teach-back method should be implemented three-to-four times throughout the process before discharge. Also, the interventions of this program need to be conducted over a longer period of time. It may also be beneficial to implement the use of smart phones for better assistance, such as reminders for appointments. In addition, I recommend that clinic leaders continue to explore various ways to establish trust with patients. It would also be helpful to help nurses learn ways to the comfort the participants, and to be able to provide referrals for the provision of food, medications, and other needs for basic human functions. Additional resources regarding social-economic support services can also add to the discharge process.

Strengths and Limitations of the Project

A major strength of this project was the number of patients participating in the month-long study, given the high-risk nature of the population. The intervention allowed the clinic nurses to build trust with participants from the vulnerable population. Only 13 (35%) of the participants did not finish the project. Also, 32 (86.5%) participants attended their follow-up visits, compared to two (4.0%) who attended follow-up visits among the control group that did not have the intervention. The project was limited by the high

mortality rate; nine (22.3%) participants died of various causes. These deaths were attributed to the high-risk group that this sample represented.

A limitation may be the number of patient-initiated calls to the clinic during the 30-day follow-up period. Simply offering access to the clinic for follow-up information and problem solving may be as significant as the actual follow-up calls in this population.

Section 5: Dissemination Plan

I plan to present this project to the members of the inter-disciplinary team at the free clinic. I have asked to present this to the Board of Directors as a way to demonstrate how a nursing follow-up program can benefit in-patients seen at the clinic. The results of both the baseline and intervention groups' causes of re-admission show that lack of shelter is the predominant reason for re-admission. This data may inspire the clinic leaders to pursue innovative alternatives such as intermediate shelter with medical support, as traditional shelters do not take in patients with significant medical issues.

I plan to submit this as an abstract to the national meeting of the National Association of Free and Charitable Clinics for possible presentation. This may also have relevance to safety net hospitals that serve a similar population.

Analysis of Self

I had a hard time with this project. There were many ups and downs when it came to the follow-through by the staff and participants. The staff appeared to resent the extra work they were being asked to do. The participants just wanted to be in-and-out of the clinic. Consequently, I was getting a lot of resistance from both quarters. It was very difficult to feel a sense of accomplishment when nearly one-fifth (18%) of my intervention participants could not complete the intervention due to death by violent or unnatural causes.

Nevertheless, many other expectations were fulfilled, such as the satisfaction of earning the patients' trust. It was gratifying to receive the trust of the clinic that my

project would provide better healthcare to their patients. If I were to do this again, my motivation would be the simple fact that I had helped people who were from such a high-risk population to achieve better outcomes from their hospital stay. The most rewarding aspect was the encouragement and support that came from the people that followed through, despite their reluctance. It was also gratifying to be surprised by the efforts of the participants who called in before the clinic had the chance for follow-up calls, indicating that the talk-back sessions provided them with the strategies and the confidence they needed to self-advocate. Many participants acknowledged that this system had made them feel good because for the first time someone is taking the time to help. They truly believed that the providers actually cared about them, and someone is hearing them for the first time.

I learned to recognize the small victories when dealing with a major issue. If given the chance, I would continue this project with the hopes that I could facilitate a higher percentage of change in readmission rates. I know that it will take an intervention of much longer duration to see significant change, but it would be worthwhile to pursue from the perspective of hospital efficiency, institutional cost savings, positive outcomes for patients, and, of course, personal satisfaction.

Summary

The results of this study demonstrate that follow-up phone calls can decrease readmission rates within a 30-day period in a high-risk, vulnerable population. The overall results showed that 83.8% ($n = 31$) participants were not readmitted, and of those

16.2% ($n = 6$) participants who were re-admitted, the primary reason was lack of shelter.

The nurse intervention led to a significant change in readmission rates for the free clinic.

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Appendix A: Follow-up Call Transcript and Guidelines

Caller: Hi, I'm _____ from the free clinic. I was calling to do a follow-up call based on your last visit. How are you doing today?

- Good. (If reply is good, go on to next question.)
- Not good. (If reply is not satisfactory, ask about the problem. If the problem is medically-based, report problem and go on to next question.)

Caller: Based on your last visit, are you experiencing any problems?

- Yes. (If yes, what is the nature of the problem?)
- No.

Caller: Did you understand your discharge information?

- Yes.
- No.

(Caller: Review discharge instructions with the patient. Encourage the patient to use the teach-back method after reading the instructions. If the participant agrees, the caller may read the instructions to the patient.)

Caller: Do you have any questions about the discharge information, medications, or after-care instructions?

- Yes.
- No.

Did you make a follow-up visit at the clinic?

- Yes.
- No. If no, the caller is encouraged to schedule a visit for the participant.

Caller: Summarize what has been discussed.

Remind the participant of the date and time of the next scheduled appointment. Encourage participant to call the clinic any time with questions, problems with pre-existing conditions, or an emergency.

Closing the call:

Caller: Thank you for your participation. If you have any problems, please do not hesitate to call. Once again, thank you, and have a nice day.

Check participant's chart after the follow up call:

Was patient readmitted to the hospital?

Yes. If yes, why?

No.

Did the patient go to ER in the 30 days after discharge?

Yes. If yes, why?

No.