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Reducing Hospital Readmissions Using the Self Care Deficit Theory

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by

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Abstract

This project aims to reduce inpatient hospital readmission occurrences within 30 days of an initial inpatient hospitalization. Patients at high risk for readmission may have deficits in their ability to meet self-care needs after discharge. Orem's Self-Care Deficit Nursing Theory provided the theoretical framework for the project. The education provided by this project can teach nurses to identify patients who may be at high risk for readmission. Once identified, nurses can advocate for the patient's needs.

Keywords: hospital readmissions, self-care, Self-Care Deficit Nursing Theory

Acknowledgements

This project is dedicated to the memory of my mother, Lynn Baker, who supported and mentored numerous nursing students during the pursuit of their degrees.

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CHAPTER I

Introduction

Readmission prevention is an important topic that requires constant monitoring and intervention. When patients are readmitted to the hospital within 30 days of their last admission, and the reason for readmission is not completely unrelated to the initial hospitalization, it is likely a preventable admission. Healthcare workers are responsible for taking every action possible to prevent unnecessary rehospitalization of patients. A patient's inability to independently complete or receive assistance with daily living activities is an indicator of the possibility of readmission. Patients who are unable to have daily living activity needs met are more likely to experience rehospitalization (Schiltz et al., 2020). The Self-Care Deficit Theory outlines specific activities of daily living that must be met to maintain healthy living. Monitoring a patient's ability to meet these needs could help identify patients that may face rehospitalizations within 30 days of discharge. If hospital discharge planning providers can coordinate services to ensure that these needs are met, readmissions may be prevented.

Problem Statement

Readmissions can be costly to hospitals and detrimental to the health of patients. Readmissions in the first 30 days after discharge can reflect poorly on the care received during initial hospitalization and indicate the possibility of poor discharge planning. Patients that are readmitted could incur extra unnecessary expenses.

Significance

Patients, caregivers, healthcare workers, and healthcare organizations will benefit from decreasing the occurrence of hospital readmissions. Patients will experience a

higher level of health due to interventions put in place to decrease the likelihood of readmission. Caregivers will be provided with education that will benefit their loved ones. Healthcare workers will be provided with tools that they can use with their patients and caregivers that will have a positive impact after discharge. Healthcare organizations will benefit financially from decreased readmissions.

Purpose

The purpose of this project was to decrease rehospitalization of patients within the first 30 days after discharge. Patients that have been diagnosed with acute myocardial infarction, chronic obstructive pulmonary disease, heart failure, or pneumonia are at high risk for readmission as well as patients who have undergone coronary artery bypass graft surgery, elective primary total hip arthroplasty, or elective total knee arthroplasty.

Theoretical/Conceptual Framework

The Self-Care Deficit Theory developed by Dorothea Orem can be used to better understand the reasons why readmissions might happen. Orem's theory identifies five activities of daily living that are associated with living healthily.

1. The maintenance of sufficient intake of air, food, and water.
2. Provision of care associated with the elimination process.
3. A balance between activities and rest, as well as between solitude and social interaction.
4. The prevention of hazards to human life and well-being.
5. The promotion of human functioning. (Petiprin, 2020)

When daily living activities are left unmet and health declines, readmissions can occur. Limitations in instrumental activities of daily living can be used as a predictor of

30-day hospital readmissions (Schiltz et al., 2020). Monitoring functional abilities during initial hospitalization could help identify patients with the greatest risk for readmission. Once identified, interventions can be installed to aid readmission prevention efforts.

Figure 1 is a conceptual and theoretical outline showing the deficits in self-care that this project will teach nurses to look for in their patients.

Figure 1

Conceptual and Theoretical Outline

Sustaining an optimal level of health requires maintaining each of Orem's five self-care requisites according to the Self-Care Deficit Theory (Biggs, 2008). The first requisite for sufficient intake of air, food, and water is simple, yet likely, the most important. After hospitalization, adequate nourishment is vital while the body is healing itself. Bowel and bladder elimination is a sensitive subject that patients may be embarrassed about, especially if they require assistance to complete the task. A patient

recovering from recent hospitalization requires a great deal of rest as well as activity and socialization. They may have felt lonely and isolated during their hospital stay. When a patient is discharged from the hospital, they need a reliable support network. That network may be comprised of family, friends, church members, neighbors, or community members. In an effort to decrease the occurrence of readmissions, healthcare workers can explore the self-care requisites with patients who are identified as high risk. Self-care deficits that are identified prior to discharge can be addressed with the patient in an effort to improve the quality of health when the patient returns home.

Definition of Terms

For the purpose of this project, readmission is defined as an unplanned admission to the hospital within 30 days of discharge from the initial admission. Activities of daily living (ADL) are defined as the tasks of everyday life. Basic activities of daily living are eating and drinking, getting into or out of a bed or a chair, dressing, taking a bath or shower, and using the toilet.

CHAPTER II

Literature Review

A review of literature was conducted by using a variety of database search engines including Google Scholar, ProQuest, Deepdyve, Medline, and Cumulative Index to Nursing and Allied Health (CINAHL). Keywords used to search for literature used were as follows: hospital readmission, 30-day readmission, reducing readmissions, self-care deficit theory, Orem's self-care theory, and preventing readmissions.

Readmission Reduction

Preventing readmissions is in the best interest of the patient and the best interest of the healthcare organization. The healthcare organization can face financial penalties if readmission rates are too high. In 2012 the Affordable Care Act (ACA) established the Hospital Readmission Reduction Program (HRRP) (McIlvennan et al., 2015). This program penalizes hospitals financially for high rates of readmission within 30 days. Since 2015 the program has concentrated on acute myocardial infarction, heart failure, pneumonia, chronic obstructive pulmonary disease, patients who undergo coronary artery bypass grafting, and elective hip and knee arthroplasty (McIlvennan et al., 2015).

A 2014 study found that if "highly supportive discharge interventions" (Leppin et al., 2014, p. 1098) are applied a patient will be more likely to avoid readmissions (Leppin et al., 2014). The study concentrates on how much work being a patient is and if a patient and their caregivers have the capacity to "carry out the work" (Leppin et al., 2014, p. 1098) of being a patient. The more burdensome and demanding discharge needs are the less likely the patient's discharge is to be successful. This could result in an unplanned rehospitalization prior to 30 days from discharge. The study used randomized trials and

included patients that were hospitalized for over 24 hours in medical or surgical units. Data was evaluated by reviewers who were blinded to trial outcomes. Individuals included in the study were 65 years of age and older. Patients with a heart failure or similar diagnosis and admitted to a general medical unit were included in the study. Interventions applied added to the patient's capacity for self-care. Patients who were more supported at discharge experienced fewer readmissions.

Patients who are 65 years of age or older and have previously had falls at home may be more likely to experience rehospitalization in the post-discharge period. According to a 2019 study (Hoffman et al., 2019), post-hospitalization falls are one of the leading diagnoses among re-hospitalized patients. Hoffman et al. (2019) reviewed Medicare recipients age 65 and older with readmissions between January 1, 2013 and November 30, 2014. The analysis was conducted between February 1, 2018 and February 26, 2018. There were 8,382,074 cases reviewed. The researchers reviewed readmission cases and identified the cause for readmission. Hoffman et al. (2019) found that 12.9% of readmissions involved fall-related injuries. Patients with cognitive impairment experienced readmissions due to fall-related injuries at a rate of 16%. The study concludes that identifying patients who are a fall risk could be an effective means of identifying patients at risk for readmission less than 30 days after hospitalization (Hoffman et al., 2019).

There is a 2015 study that investigates the efficacy of multimedia education provided to heart failure patients (Boyde et al., 2015). This study used a randomized controlled trial including 200 patients that were followed for 12-months. The control group received the usual education and the test group received multimedia education. The

control group received pamphlets, a short book, and education provided by a nurse specialized in care of heart failure patients. The multimedia education included watching a digital video disc (DVD), having a verbal discussion, and receiving a written manual. The multimedia education session was concluded with a teach-back style interview with five questions about self-management of heart failure. The study found a positive correlation between multimedia education and decreased readmission rates.

Hospital staff are very impactful on patients and their families. A study conducted by Yang et al. (2018) outlines how a patient's perception of interactions with hospital staff relates to hospital readmissions. There were 4,535 hospitals included in the study. Conditions included for review were acute myocardial infarction, chronic obstructive pulmonary disease, heart failure, hip and knee surgery, pneumonia, and stroke. The researchers

> established multivariate regression models in which 30-day risk-adjusted readmission rates were the dependent variables and patients' perceptions of the responsiveness of the hospital staff and communication (as measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores) were the independent variables of interest. (Yang et al., 2018, Abstract section)

Yang et al. (2018) found that rehospitalization rates negatively correlated with how responsive staff was during a patient's stay. Increasing responsiveness may decrease readmission rates.

Literature Related to Theoretical Framework

The Self-care Deficit Nursing Theory was developed by Dorothea Orem (Orem,

1971). The theory is founded on the assumption that "people should be self-reliant and responsible for their own care and others in their family needing care" (Taylor et al., 2000, p. 105). Orem believed that people are diverse individuals and that patients should be cared for on an individual level. Orem's Self-Care Deficit Theory states that "a person's knowledge of potential health problems is necessary for promoting self-care behaviors" (Taylor et al., 2000, p. 105). Another very important part of the theory is that "successfully meeting universal and development self-care requisites is an important component of primary care prevention and ill health" (Taylor et al., 2000, p. 105). As an educator, Orem taught students that nursing is an interaction between two people. Interactions between nurses and patients or patient caregivers are intended to increase the patient's ability to have self-care needs met. When nurses interact with patients and families to provide education, it is a way to help patients meet their self-care needs.

Education is one of the most important tools a healthcare provider can use to increase self-care in patients. A study was conducted of cardiac patients experiencing advanced heart failure (Jaarsma et al., 2000). The goal of the study was to investigate the effects of "supportive educational nursing intervention on self-care abilities, self-care behavior, and quality of life" (Jaarsma et al., 2000, p. 328) in patients diagnosed with advanced heart failure. This study was experimental, randomly assigned in design. There were 179 patients with an average age of 73 included in the study. The study was measured by ability for self-care, self-care behavior, quality of life, and overall wellbeing. Patients in the study received an in-home nurse visit where education was provided. The study indicated that after education was provided, self-care behaviors increased and quality of life improved. Jaarsma et al. (2000) concluded that the

intervention of nursing education is effective for improving self-care behaviors and quality of life in patients diagnosed with advanced heart failure.

A study conducted by Attaallah et al. (2016) analyzed American adults over age 65 that are admitted to the hospital with a diagnosis of heart failure. The study reviewed the literature of 28 previous studies. The study sought to review existing literature regarding self-care and health outcomes related to this population. Results of the study indicated that male patients had more positive outcomes than female patients. The number of cardiologist referrals was found to have a positive effect on self-care. Cognitive functioning and self-efficacy were found to be positively correlated. Depression and peripheral arterial disease were factors found to have a negative effect on self-care abilities. Interestingly, the study found that there was not a strong correlation between health outcomes and 30-day readmission occurrence (Attaallah et al., 2016).

Diabetes is a disease that requires a lot of self-management. Orem's self-care deficit nursing theory can be helpful when applied to educating individuals with diabetes. A case study published in 2007 illustrates the benefits of using the Self-Care Deficit Nursing Theory in nursing practice (Kumar, 2007). The case study involves a female diabetic patient being assessed by a clinical nurse specialist. The nurse uses North American Nursing Diagnosis (NANDA) standardized nursing language, Nursing Interventions Classification (NIC), Nursing Outcomes Classification (NOC), and Orem's Self-Care Deficit Nursing Theory (SCDNT) in her interactions with the patient. The case study found that SCDNT and NANDA standardized nursing language improved the client's ability to self-manage her diabetes.

Patients with chronic conditions require lifelong medical care. Many patients who

are experiencing readmissions within 30 days of discharge also suffer from one or more chronic conditions. According to Hellqvist (2021) “nursing interventions for persons affected by long-term conditions should focus on providing support to enhance the ability to manage disease in everyday life” (p. 1). Hellqvist examined self-care of patients with Parkinson’s disease and evaluated the support required from healthcare workers to achieve independent self-care. Hellqvist reported that providing a nursing model to guide nurses providing self-care management support has a lasting positive impact. Hellqvist concluded that nursing support does promote independent self-care.

Strengths and Limitations of Literature

This review of literature includes published and peer-reviewed research articles from reliable resources. Research on 30-day readmissions has become easy to find due to the financial impact that it has on healthcare organizations. The literature supports the need for decreasing readmissions. The literature also supports the Self-Care Deficit Nursing Theory as an education tool that can have a positive effect on patients and caregivers. A limitation of the review is that reasons for readmissions are broad and numerous. Pinpointing the specific reason for readmission can be difficult. High rates of readmission and the impact it has on the health of patients demonstrates the need for development of interventions and investigation of the use of the Self-Care Deficit Nursing Theory as an effort to decrease readmission rates.

CHAPTER III

Needs Assessment

This project will have a positive impact on patients, caregivers, and healthcare workers. Patients will enjoy a higher level of health. Caregivers will confidently assist loved ones while supporting their health goals. Healthcare workers will gain tools that can be used in daily practice with all patients. Rising rates of readmission occurrences show the need for this project.

Population and Setting

Nursing staff is the target population for this project. They will be provided with SCDNT education. The project will take place in an inpatient hospital setting. Three units have been chosen to pilot the project. The progressive coronary care unit (PCCU), the internal pulmonary unit (IPU), and the post-surgical care unit (PSC) will be included in the project.

Sponsors and Stakeholders

This project will take place in a southeastern hospital in the United States of America. The nursing supervisor at the organization will partner with the project leader to assist with implementation. The nursing supervisor will send information to participating units and educate nurse leaders. The healthcare organization where this project will take place is supportive of the endeavor to reduce 30-day readmissions. Reducing 30-day readmission rates will have a positive financial impact on the organization. Nursing educators will be sponsors of this project. An educator is assigned to each unit of the hospital. They are responsible for supporting new education provided to each unit. This project will require their support.

This project will include patients who are at high risk for readmission. Patients at highest risk are those 65 years of age and older who have been diagnosed with acute myocardial infarction, chronic obstructive pulmonary disease, heart failure, pneumonia, patients who have undergone coronary artery bypass graft surgery, elective primary total hip arthroplasty, or elective total knee arthroplasty. Patients are stakeholders in this project.

Desired Outcomes

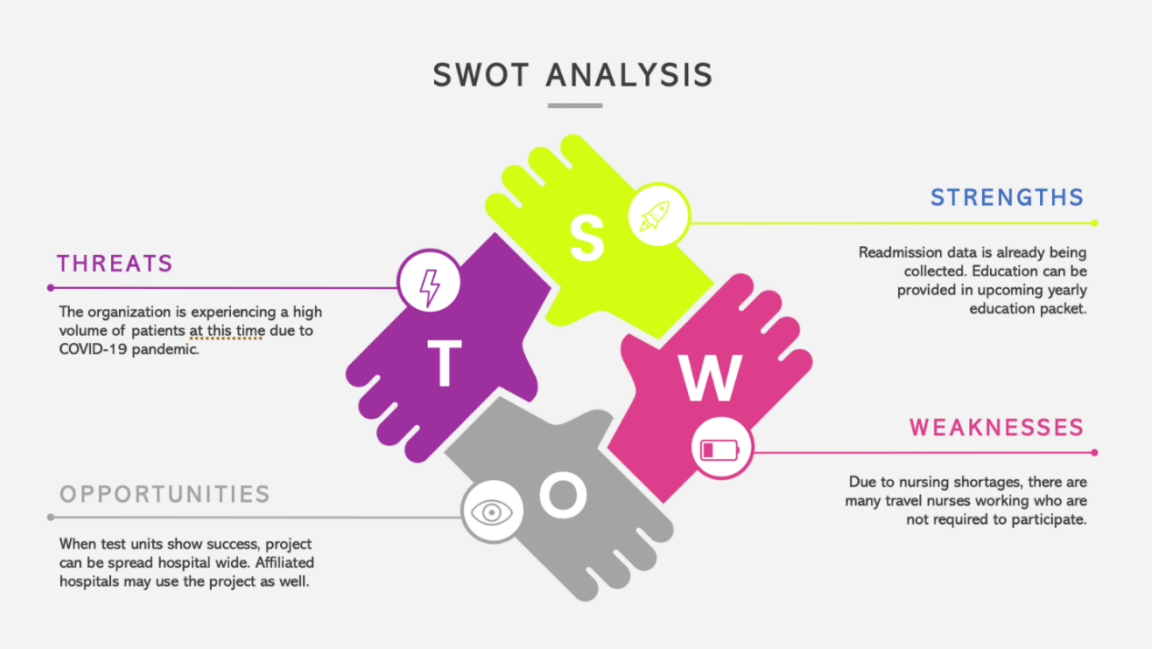
This project will show that increasing a patient's capacity for meeting self-care needs will reduce readmission occurrences. Readmission rates are already being monitored at the healthcare organization. Reported monthly readmission information will be used to monitor the project's success. Nurses will receive education regarding the promotion of self-care in patients. After education is completed, nurses will receive a competency exam to evaluate the knowledge they have gained. By using knowledge received by the project, nurses can directly affect changes in rates of readmission.

SWOT Analysis

An analysis of strengths, weaknesses, opportunities, and threats (SWOT) was conducted and is reflected in Figure 2.

Figure 2

SWOT Analysis



Resources

This project will require SCDNT education materials to be provided to healthcare workers. The education will be provided through Core Connect and available through online modules. Core Connect is an online application that employees can use to complete educational modules at their own speed and time. Each unit where the project will be implemented will identify a small group of superuser employees who will promote the project on their unit and advocate for its use in patient care spaces. Superusers are employees that volunteer to be educated on the project first so that they can assist on the unit when the project is implemented. The project will be implemented on three units initially and may spread across the entire organization if successful.

Team Members

Team members will include the following individuals:

- Project leader: (Master of Science in Nursing student)
- Project Chair
- Practice partner: Nursing supervisor
- Nursing educators

Cost-Benefit Analysis

This project will not incur any cost and requires no increase in budget. SCDNT education information will be compiled by the project leader at no cost. The organization can benefit financially if the project is successful. If readmission rates are decreased, the organization will have a decrease in financial penalties incurred by the Centers for Medicare and Medicaid Services (CMS). Success of the project will contribute to fewer penalties from CMS resulting in increased payment.

CHAPTER IV

Project Design

Goals and Objectives

The goal of this project was to reduce the instance of hospital readmissions. Healthcare workers can reduce readmissions by applying techniques outlined in the Self-Care Deficit Nursing Theory. To meet this goal, several objectives must first be met. Nurses will gain knowledge about SCDNT through educational interventions that will contribute to the following objectives:

- Individuals will be able to manage their medications independently or with the assistance of a caregiver;
- Individuals will be able to meet elimination needs in their home setting;
- Individuals will be able to receive adequate nutrition;
- Individuals will be able to achieve periods of activity and periods of rest; and
- Individuals will be able to seek appropriate medical attention.

Plan and Material Development

The first step in planning for this project will be educating healthcare workers. Healthcare workers will receive education regarding self-care deficit needs that a patient should be able to attain to maintain a level of health that prevents hospital readmissions. The education process will begin with the project leader providing education to the nursing educators for the hospital units included in the project. Nursing educators will then educate a small group of superuser nurses on each unit. The super users along with nurse educators will provide education to the remaining staff on each unit. Education should be completed over the course of 30 days.

Nurses that have received education provided by this project will be able to identify deficits in the self-care needs of their patients. They will then be able to advocate for the needs of their patients. This will allow patients to remain at an optimal level of health after discharge and in turn, reduce hospital readmissions.

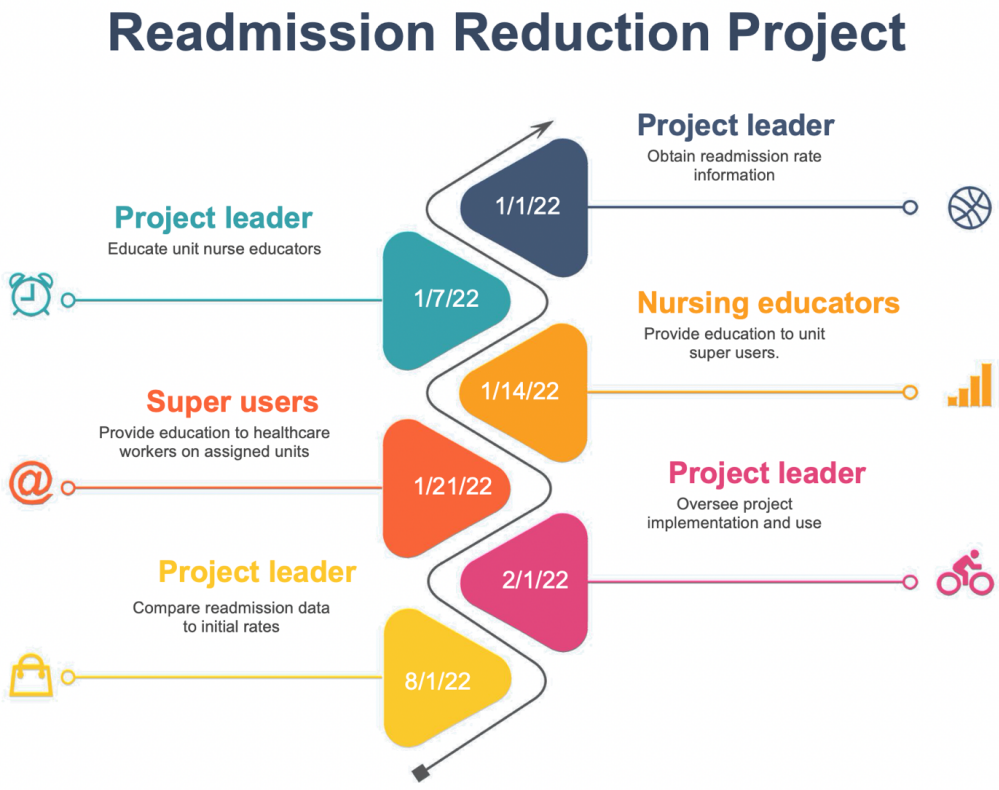
The hospital has a system in place that identifies patients who are at high risk for readmission. Patients that are at high risk for readmission will be included in the project. After staff education is completed, healthcare workers will begin implementing the use of the project on their units. The project will run for 6 months. After 6 months readmission rates will be compared with rates prior to the project's implementation.

Timeline

Figure 3 presents a timeline for the progression of the project.

Figure 3

Project Timeline



The above timeline is for explanatory purposes and can be modified as needed.

Evaluation

Hospitals are required to monitor how many patients are readmitted within 30 days of their previous admission. The project leader will obtain current readmission rates at the beginning of the project. Readmission rates will be obtained again at the end of the project and compared to the rates at the beginning of the project. A reduction in the rate of readmissions would indicate that the project was successful. The project's success can lead to higher reimbursement rates for the hospital, a reduction in healthcare worker workload, as well as improved health of discharged patients.

CHAPTER V

Dissemination

The intention of this project was to decrease the occurrence of readmission within 30 days of inpatient hospital discharge. Reducing readmission rates is beneficial for patients, hospitals, and healthcare workers. When readmission rates are reduced hospital reimbursement rates are increased which benefits the healthcare organization. Readmissions increase the workload on healthcare workers. Reduction in readmission rates helps decrease that workload. This project will include educating patients and providing them with skills to better their health status. Patients can benefit from this project as they will be able to enjoy a higher level of health.

Dissemination Activity

This project will be presented to the nursing supervisor, nurse managers on the units included in the project, and the nursing educators for each of the units. The information will be presented by discussion. The project leader will share information regarding readmission rates and the detrimental effects high readmission rates can have on patients and healthcare organizations. Education materials outlining the goals of the project and explaining the self-care deficits nurses will learn to identify will be provided. When the project implementation is complete, a debriefing session will be held with project stakeholders, and readmission rates will be reviewed again and compared with rates present at the beginning of the project.

Limitations

There are a few limitations present for this project. Due to the COVID-19 pandemic visitation is limited. This limit may be detrimental when healthcare workers

attempt to provide education to patients and their caregivers. This project is beginning at a time when healthcare workers are overwhelmed, and hospital census is at an all-time high. Adding another assessment and education tool for healthcare workers to use during this time may not be supported by all nurses. If the project is not fully supported, results may not be achieved.

Implications for Nursing

Nurses would first need to be educated on the Self-Care Deficit Nursing Theory and how it can be applied to readmission prevention. Each nurse on the included units will need to receive this training. Once all the nursing staff is trained the education can be used with patients. Nurses will need to assess if patients need support in an area of self-care deficits and then educate them on the importance of supporting each deficit. If education is not sufficient, discharge planning may need to be involved so that post-hospital services can be arranged. Nursing may need to communicate discharge planning needs to case management and to attending physicians. Through education guided by the Self-Care Deficit Nursing Theory, nurses may improve nursing practice, strengthen discharge planning strategies, and empower nurses to be stronger advocates for patients at time of discharge.

Recommendations

Supporting nursing staff during this time will be key to the project's success. During the first few weeks of implementation, nurse educators and super users need to be readily available on participating units to provide extra support. When the project has concluded, if successful, it should be implemented throughout the remaining units of the hospital.

Conclusion

Readmissions result in lower levels of health in vulnerable patient populations. Healthcare organizations are invested in lowering the rate of readmissions due to monetary impact if readmission rates are high. If readmission rates are low, nurse workload is also kept at a lower level. It is in the best interest of healthcare organizations, healthcare workers, and patients to work to prevent readmission within 30 days of discharge from an inpatient hospital setting.

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