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Educating Registered Nurses on Decreasing Missed Care Events

Marie St. Clair Dixon-Brown
Walden University

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Walden University

College of Health Sciences

This is to certify that the doctoral study by

Marie Dixon-Brown

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

and that any and all revisions required by

the review committee have been made.

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Walden University

2020

Abstract

Educating Registered Nurses on Decreasing Missed Care Events

by

Marie Dixon-Brown

MSN, Walden University, 2015

BSN, Long Island University, 2001

Project Submitted in Partial Fulfillment of

the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May 2020

Abstract

Missed care or partially completed nursing care is a prevalent problem in healthcare with negative consequences for patients, nurses, and healthcare organizations. This project was developed to address a gap in practice by providing staff education regarding the current evidence about missed care along with practical evidence-based strategies to decrease missed care events. Kalisch's missed nursing care model framed the project. The staff education program used a PowerPoint presentation with interactive discussion and role play opportunities for nurse participants to engage in and employ strategies to prevent missed care events. A 10-item multiple choice post-education quiz and 4-point Likert-type program evaluation was completed by 23 nurses to assess knowledge and competence gained on preventing missed care events. Results indicated that 91% of participants answered all questions correctly, and 100% of participants agreed or strongly agreed that the content was interesting, extended their knowledge, was consistent with the objectives, met the purpose/goals of the activity, and related to their jobs. Following the education, 96% of participants strongly agreed that they were more competent in their ability to define missed care, identify the primary causes of missed care, and describe the effect on the hospital consumer assessment of healthcare providers and systems scores, as well as to implement strategies to prevent missed care events that align with nursing policy. The use of this project can promote an increased knowledge of the causes and prevention of missed care events to improve patient outcomes, reduce adverse events, and enhance revenue for the project site. This project can foster positive social change by improving practice locally and on broader levels to improve patient outcomes.

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Dedication

This project is dedicated to my family, including my husband, daughter, and my late Vice President of Nursing, who always believed in me, motivated me and inspired me to be the best version of myself. Success in completion of this project would have been hampered without the unwavering support from these great individuals who loved me unconditionally. My husband worked with me when the job seemed impossible, and my daughter reminded me daily of the reasons why I started this DNP journey.

Acknowledgments

I want to acknowledge my chairperson, chair member, and university research reviewer, Dr. Anna Valdez, Dr. Linda Hall Crawford, and Dr. Ruth Elizabeth Politi, for their ongoing support, wisdom, patience, and encouragement throughout this DNP process. Your guidance and expertise have been immeasurable, and your knowledge translation impacted my growth as a scholar. I also extend sincere gratitude to Dr. Diane Whitehead and Dr. Cecile Lewis for their time invested in me to get to this milestone.

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Section 1: Nature of the Project

Introduction

Unfinished nursing care, often referred to as missed care or partially completed nursing care, is a highly prevalent problem in healthcare with negative consequences for patients, nurses, and healthcare organizations (Jones, Willis, Amorim-Lopes, & DrachZahavy, 2019). Missed nursing care is a subset of error of omission, which is nursing care that is partially delayed or not completed due to inefficiency in coordination, provision, and evaluation of prescribed interventions to optimize patient outcomes (Agency for Healthcare Research and Quality [AHRQ], 2019). Kalisch and Williams (2009) said that "missed care, or any facet of required patient care that is omitted either in part or in whole or delayed" (p. 11). Jones et al. 2019 explained that between 90-98% of nurses reported missing at least one element of care during the research period, which was frequently their last shift. Several factors have been identified that contribute to missed care events, including staffing patterns, workload, high patient acuity, and teamwork (Blackman et al., 2015; Bragadóttir, Kalisch, & Tryggvadóttir, 2017. An essential element of collaboration that influences missed care is effective communication and patient handoff. Missed care was attributed to poor communication approximately 3540% of the time, and inadequate or incomplete handoff was an issue 58-63% of the time (Chapman, Rahman, Courtney, & Chalmers, 2016).

Missed nursing care is related to tangible clinical outcomes including quality of care delivery, medication errors, hospital-acquired infections (HAIs), falls, patient mobilization, pressure injuries, mortality, and reduced patient satisfaction scores (Fealy et al., 2019; Recio-Saucedo, 2017; Villamin et al., 2018). Jones, Chesak, Forsyth, & Meiers

(2019) suggested the use of knowledge translation of missed care to provide the necessary conceptual tool to enhance the understanding of how unfinished nursing care impacts the nursing profession, healthcare systems, and society at large. Ineffective communication was the leading cause of sentinel events, including missed care (Joint Commission, 2017).

This doctor of nursing practice (DNP) project explored the evidence related to the causes and consequences of missed care. Evidence-based strategies that reduce the incidence of missed care were identified to educate nurses to improve care delivery and patient outcomes. Reducing the frequency of missed care has the potential to improve nurse and patient satisfaction and patient outcomes, thus promoting social change in families and the community.

Problem Statement

Promoting patient safety is among the most important goals and challenges of global healthcare systems (Liu et al., 2018). Two out of seven hospitalized patients still experience missed nursing care, between 4% to 16% of patients admitted to hospitals globally experience adverse effects, and approximately 50% are preventable (Kirwan, Riklikiene, Gotlib, Fusher, & Borta, 2019; Makary & Daniel., 2016). Nursing shortages, high patient-nurse ratio, and nurses' working environment can influence the incidence of missed nursing care by creating more prevalence of pressure injuries, medication errors, falls, and other detriments. Missed care has been shown to correlate with patient falls, patient dissatisfaction, 30-day readmission among patients with chronic diseases, delayed discharge, increased length of stay (LOS) poor patient outcomes, and nurse turnover rate

(Duffy, Culp, & Padrutt, 2018; Gathara et al., 2019; Ralph, 2018; Recio-Saucedo et al., 2017).

The project site identified an increase in missed care events, which resulted in adverse events and threats to patient safety. The frequency of missed care varies from month to month and was indicated on the organization's IT system as tasks not completed or documented late, chart reviews, and poor hospital consumer assessment of healthcare providers and systems (HCAHPS) scores (personal communication, Nurse Manager). Patient safety is a concern for all health care providers, and nurses play a vital role in this process (Kirwan et al., 2019). To address this gap in practice, a staff education program based on the current evidence related to missed care and strategies to decrease these events was developed and presented to direct care staff. As a DNP-prepared nurse and transformational leader, I have the accountability to advocate and provide the support that will enhance the healthcare system to transform care, practice, career, and culture.

Purpose Statement

The practice problem within the project site is a consistent problem with missed care that has an impact on patient safety and the quality of their hospital experience. The purpose of this project was to provide staff education regarding the current evidence related to missed care and practical strategies to decrease missed care events. The practice-focused question was: "After completion of a registered nurse (RN) education program on missed care will participants agree that they have improved their knowledge and competence in preventing missed care events?" This education project was developed using current evidence-based information on the causes and prevention of missed care.

The staff education program may reduce the incidence of missed nursing care; however, that was not assessed as a part of my DNP project.

Nature of the Project

This project followed the guidelines outlined in the Walden University DNP Staff Education Manual. The nurses were invited to participate in a staff education program to explore the evidence related to the causes and consequences of missed care and how to utilize evidence-based strategies to improve care delivery and patient outcomes. A review of the evidence was completed using the Walden University online databases including CINAHL Plus, Embase, MEDLINE, ProQuest Nursing & Allied Health Source, PubMed, and Joanna Briggs Institute EBP. Keywords included but were not limited to *missed care*, *omission of care*, *missed nursing care*, and *care left undone*. Findings from this review of the evidence were used to develop the educational program on missed care, which may result in improved nursing knowledge and potentially a reduction in missed care events at the project site.

Significance

The involvement of key stakeholders is critical in modern project development and management (Sidek & Martins, 2017). The stakeholders involved in this project included the staff nurses who may benefit from the acquisition of strategies to decrease missed nursing care, managers, the nursing education and quality improvement personnel, and the organization, which may benefit from a reduced cost of adverse events due to missed nursing care. Above all, patients and families benefit when incidences of missed care are decreased and causes of missed care identified (Smith, Morin, Wallace, & Lake, 2018). The support of the chief nursing officer (CNO) and the vice president

(VP) of nursing at this project site increased the support for evidence-based care within the organization to achieve positive clinical outcomes.

Missed care is a global issue that affects the experience of patients and their families, the organization, and the nurses' collective efficacy (Smith et al., 2018). Feedback from stakeholders within the project site cemented the need for an education program on evidence-based strategies to improve patient care delivery and outcomes. Bridging the gap between nursing knowledge of the consequences of missing nursing care and quality care delivery and outcomes will affix experience to action with this staff education program. Schon's (1995) theory pushes for formulating projective models that can convey knowledge into action such as the development of this staff education program to improve care delivery. The bimonthly meetings with key stakeholders were a symbol of "reflection in action" to utilize the needs assessment of the organization to develop strategies that can enhance care delivery and create social change.

All nursing staff on the pilot unit received an email invitation to participate in an education program related to patient safety and missed care. Following the educational program, a posttest was administered to explore if the education program addressed the project question.

This project has the potential for positive social change by empowering nurses and improving their knowledge of evidence-based strategies to reduce missed care events. The goal of this project was to provide education that will reduce missed care events and improve patient satisfaction. The results may improve patient outcomes,

reduce adverse events, and improve revenue for the project site. If this project is deemed successful, it may be replicated in other units and within different organizations.

Summary

In Section 1, I introduced the gap in practice of missed care. Missed care events are a widespread problem jeopardizing patient safety, poor clinical patient outcomes, and increases in health system costs (Duffy et al., 2018; Palese et al., 2016; Smith et al., 2018). This project included a staff education program on the causes and consequences of missed care and strategies to reduce missed care events.

Also included in Section 1 was a discussion of the nature and significance of the project. In Section 2, I introduce the model framing this project, evidence relevant to the project, local background, and context for the project, and my role as the project director. Improving patient experience and outcomes is essential for quality healthcare services that resonate with satisfied patients, families, and caregivers. The intervention of a staff education program outlining the importance of active patient handoffs, benefits of bedside report, and the consequences of missed care will improve staff competency in providing the best care.

Section 2: Background and Context

Introduction

There is a plethora of literature outlining the effect of missed care on patient safety, satisfaction, and the quality of healthcare (Fealy et al., 2019; Recio-Saucedo, 2017; Villamin et al., 2018). There are numerous examples of missed nursing care, including lack of patient education, administration of incorrect drug or dose, lack of

turning and repositioning, and omission of skincare (Valles, Moreno Monsivais, Guzman & Arreola, 2016). The DNP project practice question was: "After completion of a RN education program on missed care will participants agree that they have improved their knowledge in preventing missed care events?" In this section, I discuss the conceptual model that was used for this project and synthesize primary writings related to the model. I also clarify terms and summarize the existing scholarship on the problem of missed care. Finally, I discuss my role as a DNP scholar and the role of the project team.

Concepts, Models, and Theories

Models of change are essential in the translation of evidence into practice (White, Dudley-Brown, & Terhaar, 2016). This DNP project was framed by Kalisch, Landstrom, and Hinshaw's (2009) missed nursing care model. Antecedents to missed care within the nursing environment include patient demand for care, resource allocations including labor and materials, and relationships. These antecedents were influenced by the different phases of the nursing process and the external environment and internal norms of the nurse. The interaction of these environmental demands and patterns create opportunities for missed nursing care and ultimately influence adverse patient outcomes. The missed nursing care model was developed by Beatrice Kalisch in 2009 and has been used to support the implications of teamwork, patient falls, and staffing issues in other studies (Kalisch et al., 2009). The model emphasizes the importance of completing the nursing standard of care to enhance quality patient outcomes (Kalisch, Tschannen, & Lee, 2012). This model was used to guide the development of the educational program and posttest.

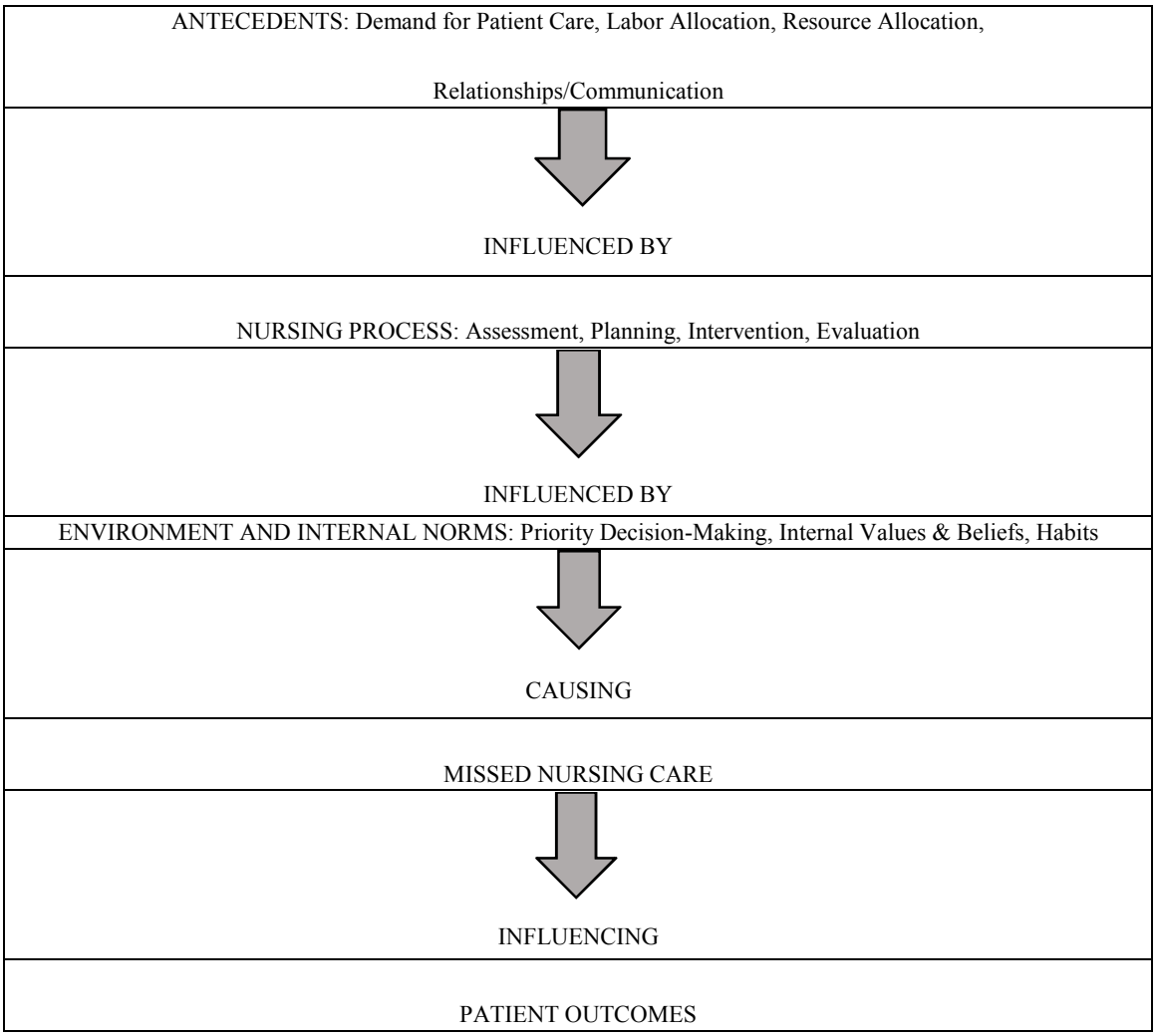

Figure 1. Missed care nursing model. Adapted from "Missed Nursing Care: A Concept Analysis," by B. J. Kalisch, G. L. Landstrom, and A. S. Hinshaw, 2009, *Journal of Advanced Nursing*, *65*(7), p. 1512.

Relevant Terms

Missed care: According to the AHRQ (2019), missed care is defined as needed nursing care that is partially completed, delayed, or not done at all. It is considered an error of omission.

Sentinel event: The Joint Commission (2019) defined sentinel events as any unanticipated event in a healthcare setting resulting in death or serious physical or

psychological injury to a patient or patients, not related to the natural course of the patient's illness.

Errors of omission: Mohamed, Diab, and Ebrahim (2019), referred to error of omission as any standard, required nursing care omitted or significantly delayed.

Relevance to Nursing Practice

Missed care, the omission of care, or delayed nursing care is a global issue that affects quality patient outcomes irrespective of geographic location (Scruth, 2018). All legitimate nursing care orders are expected to be delivered to avoid adverse patient outcomes (Verrall et al. 2015). The Institute of Medicine (2000, 2001) deemed that the quality of nursing care is one determinant of patient outcomes. Healthcare organizations are charged to decrease HAIs, reduce LOS, and prevent readmissions (Centers for Medicare and Medicaid Services [CMS], 2015). Therefore, staff education to reduce or eradicate the incidence of missed care was warranted and relevant to 21st-century healthcare quality.

Antecedents

Labor allocation. Unexpected rise in patient acuities such as admissions, discharges, lack of equipment, or abrupt illnesses, too little resources, and lack of staffing are vital determinants that enhance the probability of missed nursing care (Blackman et al. 2015; Bragadottir et al., 2017; Kalisch, 2006; Winsett et al. 2016). Winsett and colleagues (2016) found that workload complexity may place nurses in a position to make difficult choices in care delivery. Smith et al. (2018) concluded that when healthcare organizations have enough human and material resources to promote group cohesion among the staff, there will be a decrease in the prevalence of missed nursing

care events. Tubbs-Cooley and colleagues (2019) stated that nurses' workload is significantly associated with missed nursing care.

Material allocation. Nurses are the first line of care provided to patients; a limited supply of materials can hamper the delivery of efficient nursing care, causing the service to be delayed, not done, or partially completed (Kalankova, Ziakova, & Kurucova, 2019). The appropriateness of resources is the strongest predictor of missed nursing care (Blackman et al., 2015; Jones, Hamilton, & Murray, 2015; Kalisch et al., 2009). The standard of quality nursing care is threatened when supplies are rationed, and types of equipment are unavailable and nonfunctioning. (Diab & Ebrahim, 2019; Saqer & Abu Al Rub, 2018). Sloane, Smith, McHugh, and Aiken (2018) warned hospital administrators about the effect of changes in hospital nursing resources that can lead to delay in medication administration, increased incidence of falls, and uncompleted nursing care tasks.

Teamwork and communication. Teamwork positively impacts the performance of a team and significantly improves patient outcomes by reducing missed nursing care (Marguet & Ogaz, 2018). Chapman, Courtney, and Chalmers (2017) mentioned the tension and errors in communication and the significant elements related to missed nursing care. Maloney, Fend, and Hardin (2015), conducted a study that revealed 21% of participants believed that communication breakdown and lack of teamwork factored into missed nursing care. According to Castner, Wu, and Dean-Baar (2015) 64% of missed care was attributed to communication.

Teamwork and effective communication have been identified as a cause for omission or partial completion of nursing care (Marguet & Ogaz, 2018). Jones, Chesak,

Forsyth, and Meiers (2019) considered missed nursing care a quality indicator in evidence-based practice that focuses on improving patient outcomes by developing an action plan to improve quality, such as the project presented. Teamwork and effective communication are strategies that have been demonstrated to improve care delivery and patient outcomes (Castner et al., 2015; Chapman et al., 2017; Maloney et al., 2015; Marquet & Ogaz, 2018. Chapman et al.'s (2017) study findings illustrated that 9% of missed care events were significantly impacted by teamwork. Castner and colleagues (2015) concluded that workload, skill mix, and critical unit type affected the amount of missed nursing care; experience at the unit level, while secure communication and availability of resources increase the nurses' perception of missed nursing care.

A systematic review of the literature related to missed or unfinished nursing care found the team interactions and the safety climate of an organization is a predictor of quality of care and completion of nursing care (Jones, Hamilton & Murray, 2015). Kalisch et al. (2012) conducted a cross-sectional descriptive study investigating the difference in missed care events between Magnet and non-Magnet designated hospitals. Findings from the study indicated that a positive work environment and culture resulted in less missed care events. In 2013, Kalisch, Xie, and Ronis published a quasiexperimental study evaluating the impact of a train-the-trainer intervention and found that training increased teamwork and reduced missed care events. These findings support the proposed educational project.

Nursing process. Hessels et al. (2018) suggested that health care administrators and nurse leaders have a powerful opportunity to improve the conduct and impact of

nursing care by taking discrete actions to enhance patient safety culture. Identifying and addressing concerns related to unit management style and supporting active, transparent, and nonpunitive communication are strategies to help the full provision of safe care and to reduce the impact on patient outcomes (Hessels et al. 2018). Moura and colleagues (2019) identified internal nurse perceptions and decision□making processes such as habits and norms can increase the risk of missed nursing care. It is essential for the authority of nursing hierarchy to transcend patient-centered care throughout the organization but more so at the level of action to highlight care quality and patient safety as core priorities for nursing leaders (American College of Healthcare Executives, 2016; Baloh, Zhu, & Ward,
2018).

The 2017 research on quantifying missed nursing care using the hospital consumer assessment of healthcare providers and systems survey concluded that using the metrics on the HCAHPS survey could be used to develop interventions to decrease the incidence of missed care. Orique and colleagues (2017) analyzed the HCAHPS data from 1,125 acute care patients revealed patient perceptions of most frequent types of missed care. The three highest ranked incidences focused on post discharge instructions: explanation of adverse effects, assistance post discharge, and symptoms/problems post discharge. Additional missed nursing care elements included assistance with call button responses, elimination needs, and pain management. Listening carefully and explaining information to support patient understanding was identified as a missing element (Orique et al., 2017).

Environment and internal norms. In 2014, Wakefield questioned whether changes at the national system level in financing, organization, and delivery of care might be forcing nurses to prioritize what will be left undone. The quality of the nursing practice environment has a significant relationship with missed care, which includes staffing, resources, participation in decision-making, and management and leadership (Brooks et al., 2015; Jones et al., 2015; Smith et al., 2018). Smith and colleagues' (2018) study supports the practical application of improving the nurse's work environment to enhance their capacity to problem solve and reduce the incidence of missed nursing care. Kalisch and Lee (2010) recommended nursing leaders create a culture of teamwork in which group work effectiveness can be evaluated. Moura et al. (2018) suggested that nursing leaders should structure their organization to become patient-centered, relationship-based care delivery systems that utilized a team-based mantra. Diab and Ebrahim (2018) implored nurse managers to balance the distribution of nurses to patients by acuity. Moura and colleagues (2018) also suggested that some care tasks can be delegated to auxiliary staff through an assignment case-method.

Evidence Summary

Staff turnover, workload, and complex patient assignments have been linked to missed care. Changes in healthcare finance, work environmental characteristics, decision-making participation, and leaders enhancing a culture of patient safety can foster the risk for missed care (Hessals et al., 2018; Orique et al. 2017). Educating nurses on using the nursing process components of assessment, planning, implementation, and evaluation and results of patient perceptions of missed care is an approach that can be used to manage missed care events. This approach, including a focus on teamwork and effective

communication, could support patient safety and improve reimbursement in the value-based purchasing environment.

Local Background and Context

The site for my DNP project was a large urban hospital in the eastern region of the United States. The facility is known for its cardiac and respiratory services and is the only pediatric hospital within the geographic area. The facility is ranked within the top 10 best hospitals in the country for cardiac services. The hospital has a diverse population of nurses with entry-level degrees, including 90% baccalaureate degrees and 10% associate degrees. Of those nurses who have a BSN, there are 40% with a Master of Science (MSN) degree, and 8% are doctorally prepared nurses (personal communication, Nurse Manager).

Despite a highly educated nursing workforce, the facility still experiences an excessive number of missed nursing care events. Evidence of high volumes of overdue tasks on the facility's electronic medical record (EMR) demonstrates that some nursing tasks are not completed promptly or at all. Increases in skin breakdown and lack of documentation of tasks forced the institution to implement strategies to reduce pressure injuries (personal communication, Nurse Manager). Patient LOS has increased within the facility due to quality issues with nursing care (personal communication, Nurse Manager). The project site leadership believed that education was warranted to reduce the number of missed care events and improve the quality of nursing care.

The goal of this educational process was to train nursing staff members regarding the use of best practice guidelines to reduce the incidence of missed care and improve

patient outcomes within this organization, which can result in positive social change. Clinical care left undone is associated with patients not recommending a hospital to others, and patient rating the hospital poorly (Bruyneel et al. (2015). Improving patients' and families' confidence in the organization as a premier healthcare provider, reducing the volume of tasks marked as not done, or documented as late administration may improve HCAHPS scores and the quality of care delivered within the organization.

The project site was steadily working to achieve Magnet status, and key regulators such as the Joint Commission, CMS, the Center for Disease Control and Prevention, and the state Department of Health will assess the quality of care rendered. The project site's mission was to improve the health and well-being of populations through excellence in family-centered care, advocacy, research, and education using the values of safety, quality, knowledge translation, responsibility, and equity. This staff education project provided strategies to teach staff how to build a culture of patient safety, enhance teamwork, perform face-to-face bedside handoff (report), requesting adequate staff to care for patient needs safely, and other relevant topics to fulfill the organization's mission and strategic vision.

Role of the DNP Student

I am a fulltime employee of the project site and the primary coordinator of this DNP project. In my current role, I witnessed evidence of missed nursing care and its effect on patients. I am committed to the nursing profession and as a leader and fellow human being to reduce the incidence of missed nursing care by using this staff education project to empower nurses and improve patient experiences and outcomes. The development of leadership at the administrative level that entails organizational and

system administration for quality improvement and systems thinking is one of the essential foundations of the DNP curriculum (American Association of Colleges of Nursing, 2006). I obtained approvals for this project and ensured that all documentation was submitted, including Walden University Institutional Review Board (IRB) as well as the project site IRB.

Role of the Project Team

I solicited a three-member expert panel. The expert panel included a nurse educator, a nurse manager, and a staff nurse end user. The expert panel provided feedback on the initial education program as well as the final program before presentation. Feedback was obtained using the Expert Panel Evaluation Form (see Appendix A).

Summary

In Section 2, I introduced the MCNM and depicted the connection of the model to the project. The evidence relevant to the project was explored in this section. The local background of the facility and context related to the need for a missed care education program were identified. In Section 3, I reintroduce the practice question and discuss the methods that were used in my project. Evidence generated for the project including, participants, procedures, and protections, are described. The systems used for evidence analysis and synthesis are discussed.

Section 3: Collection and Analysis of Evidence

Introduction

Missed nursing care is an essential consideration for addressing the reduction of untoward events, promotion of quality nursing care, and improved patient outcomes and experience. The goal of this project was to develop an education program addressing best practices in reducing the incidence of missed care events. This project aligned with the DNP Staff Education Manual. This project also supports the Institute of Medicine (2014) recommendations to reduce the incidence of nursing care not done, partially completed, or delayed by creating an educational module that can be used as an annual competency or for newly employed RNs during the orientation period. In Section 3, I introduced the participants, procedures, and protection aligned with this project.

Practice-Focused Question

The project site has experienced a high volume of missed or delayed care events. This high volume of missed care events was consistent with the existing literature, which describes this phenomenon as a global practice issue in nursing. The purpose of this project was to address the issue of missed care through an educational program and a posttest evaluation. The practice question focused on whether a staff education program about missed care resulted in improved knowledge for nurses at the project site after participation in a staff education program. The proposed education program was intended to empower and educate nurses on the causes of missed care and strategies for reducing missed care events. A posttest (see Appendix B) and a post program evaluation form (see Appendix C) were completed by participants in the education program, which aided in answering the practice-focused question for this project.

Sources of Evidence

I utilized evidence-based literature to prepare the education program for this project. I reviewed the current evidence related to missed nursing care using the Walden University online databases, including CINAHL Plus, Embase, MEDLINE, ProQuest Nursing & Allied Health Source, PubMed, and Joanna Briggs Institute EBP. Keywords included but not limited to *missed care*, *omission of care*, *missed nursing care*, and *care left undone*. I used peer-reviewed journal articles, systematic reviews, and guidelines that support the practice-focused question with search dates ranging from 2015 to present.

Evidence Generated for the Doctoral Project

Evidence generated for this project included posttest results from the educational program and feedback from the expert panel related to the education program development. The proposed project followed the Walden University DNP Manual for Staff Education. A description of the project participants, planning, implementation, and evaluation steps follows.

Planning

Planning for this project followed the steps outlined in the Walden University DNP Manual for Staff Education. For a need assessment, I consulted the project site leadership to review data regarding missed care and determine the best approach for addressing this practice problem. After receiving a commitment of support from the organization, I identified the content experts who reviewed the proposed education program. Using evidence from the past five years, the final learning objectives and education content, were developed. A draft presentation outline (see Appendix D) was included, which was refined based on feedback from the expert panel before delivery of

the educational program. A minimum average score of 4 (agree) from each expert panel member was required on the evaluation form prior to delivery of the education program.

Implementation

Upon IRB approval, I developed the educational program and solicited initial feedback on the proposed education program from the expert panel. Panel members completed the Expert Panel Evaluation Form (see Appendix A) within 10 days of receiving the presentation materials. Based on this input I refined the educational program as needed and submitted revisions to the expert panel for the final review. The educational program was implemented in a medical-surgical unit to determine the efficacy of the program prior to large scale implementation. All registered nurses (n = 26) on the unit were invited to participate via facility email. Program participation was voluntary, and staff could withdraw from the program at any time. The program was scheduled for presentations on three different days and nights in order to capture staff assigned to different nursing shifts. All participants were provided with the Consent for Anonymous Questionnaire form prior to participating in the educational program.

Evaluation

Participants completed the posttest (see Appendix B) and the evaluation form (see Appendix C) after the program. The evaluation consisted of a Likert survey ranging from 1 (disagree) to 4 (agree). Participants ranked content, the setting, the presenter effectiveness, instructional methods, and their perceived knowledge in understanding and preventing missed care events.

Protections

The facility administrator signed the site approval form for the staff education doctoral project in Appendix C of the Walden University DNP Manual for Staff Education. This form was submitted to the Walden University IRB for approval to begin implementation of this project. All participants were provided with the Consent for Anonymous questionnaire prior to participating in the educational program. Following the education program, all participants were asked to complete an evaluation posttest and program evaluation. No names or identifiable information were collected. All questionnaire responses were anonymous and placed in a manila folder after program completion. Project records were stored in a locked file cabinet in my office. Records will be destroyed at the appropriate time based on the Walden University IRB instructions.

Analysis and Synthesis

Results from the evaluation form were analyzed using descriptive statistics. Posttest results were analyzed and reported as percent of items that are correctly answered. Comments from the evaluation were reviewed and utilized to revise content as needed after completion of this project. The dissemination of the results of the program evaluation was presented to organizational leadership and stakeholders.

Summary

In Section 3, I discussed the planning, implementation, and evaluation of this project. Protections related to the project were identified. In Section 4, I describe data analysis, implications of the project, and recommendations for further change. The strengths and limitations of the project are identified.

Section 4: Findings and Recommendations

Introduction

The purpose of the study was to explore nursing staff knowledge regarding the current evidence related to missed care and the practical strategies to decrease missed care events measured by the posttest results. This DNP project was initiated after approval from the Walden University IRB and agreement from the project site (IRB # 02-13-20-0503131). All volunteered participants were provided with the Consent for Anonymous Questionnaire form before participating in the staff education program. Participants consisted of nurses, who were instructed to assign themselves a series of numbers known only to them and placed on both the posttest (see Appendix B) and program evaluation (see Appendix C) to enhance that no names or identifying information are being collected. The staff education presentation included interactive discussion, a PowerPoint presentation, and opportunities for participants to engage and employ strategies to institutional challenges to improve patient and nurse experience.

The data from the posttest were used to accomplish the following objectives for the project:

1. Define missed care and acts of omission.
2. Identify primary causes of missed care
3. Discuss strategies for preventing missed care
4. Describe the missed nursing policy including timely barcode scanning

Findings

A total of 23 of 26 nurses participated and engaged in the post-education quiz and program evaluation. The posttest consisted of 10 multiple-choice questions in which each

nurse must choose the correct answer from the four choices provided. Of the ten multiple-choice questions in the posttest, 91% of participants answered all questions correctly. Two of the 23 nurses answered question number 2 incorrectly, indicating that 9% of RNs misunderstood error of omission and error of commission. For the future, I will emphasize the difference between the error of omission and error of commission and ensure that participants can articulate the distinction. Table 1 summarizes the findings of the post-education quiz.

Table 1

Post-Education Quiz (N = 23)

Questions	Correct responses *n* (%)
1. Missed care is defined by the AHRQ as delayed, unfinished or partially completed nursing care.	23(100%)
2. Missed care is considered a patient care error. It is classified as an error of omission.	21 (91%)
3. Missed care directly impacts the experience of patients and their families, and organizations globally.	23 (100%)
4. Poor HCAHPS scores is not a primary cause of missed care.	23 (100%)
5. Missed care can result in decreased nursing satisfaction, adverse patient outcomes, and poor patient satisfaction.	23 (100%)
6. Predictors of missed care include all of the following except nurse experience level.	23 (100%)
7. According to a Systematic Review by Griffiths et al. over 50% of nurses reported having at least one missed care event in the past week.	23 (100%)
8. According to the hospital nursing policy, the barcode scanning system must be used for all of the following goals except track nursing performance.	23 (100%)
9. Nurse-led strategies for reducing missed include, clearly communicating with members of the healthcare team, completing bedside handoff reports that include the patient, and include the patient in planning their care.	23 (100%)
10 Lawsuits and patient complaints are not associated with bedside handoff report.	23 (100%)

For the program evaluation, the RNs answered a 4-point Likert-type questionnaire ($N = 23$) to evaluate the program content, setting, presenter effectiveness, and instructional methods. The Likert scale ranges from *strongly disagree* to *strongly agree*.

100% of responses agreed or strongly agreed that the content was interesting, extended their knowledge, consistent with the objectives, purpose/goals of the activity, and related to their jobs (see Table 2).

Table 2

Program Evaluation Response (N = 23)

Topic	Strongly disagree	Disagree	Agree	Strongly agree
Content				
1. The content was interesting to me	0 (0%)	0 (0%)	0 (0%)	23 (100%)
2. The content extended my knowledge of the topic	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
3. The content was consistent with the objectives	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
4. The content was related to my job				
5. Objectives were consistent with purpose/goals of activity	0 (0%)	0 (0%)	0 (0%)	23 (100)
	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
Setting				
1.The room was conductive to learning	0 (0%)	0 (0%)	3 (13%)	20 (87%)
2.The learning environment stimulated idea exchange	0 (0%)	0 (0%)	2 (9%)	21 (91%)
3.Facility was appropriate for the activity	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
Presenter effectiveness				
1.The presentation was clear and to the point	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
2.The presenter demonstrated mastery of the topic	0 (0%)	0 (0%)	0 (0%)	23 (100%)
3.The method used to present the material held my attention	0 (0%)	0 (0%)	2 (9%)	21 (91%)
4.The presenter was responsive to participants concerns	0 (0%)	0 (0%)	0 (0%)	23 (100%)
Instructional methods				
1.The instructional material was well organized	0 (0%)	0 (0%)	1 (4%)	22 (96%)
2.The instructional methods illustrated the concepts well	0 (0%)	0 (0%)	2 (9%)	21 (91%)
3.The handoff materials given are likely to be used as a future reference	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
4.The teaching strategies were appropriate for the activity	0 (0%)	0 (0%)	0 (0%)	23 (100%)
Competence after program				
1.Define missed care and acts of omission	0 (0%)	0 (0%)	0 (0%)	23 (100%)
2.Identify primary causes of missed care	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
3.Describe the effect of missed nursing care, HCAHPS scores, safety, revenue, nurse satisfaction, and patient outcomes	0 (0%)	0 (0%)	1 (4.4%)	22 (96%)
4.Discuss strategies for preventing missed care	0 (0%)	0 (0%)	2 (9%)	21 (91%)
5.Describe the missed nursing policy	0 (0%)	0 (0%)	2 (9%)	21 (91%)

The majority (87% to 96%) of participants strongly agreed that the setting was conducive to learning, the environment stimulated idea exchange, and that the facility was appropriate for the activity. Over 90% to 100% of participants strongly agreed with the effectiveness of the presenter to demonstrate mastery of the topic and response to participants' concerns. Another 96-100% of nurses strongly agreed that the instructional material was well organized, they indicated that the presenter illustrated the concepts well and that the strategies taught including bedside handoff were appropriate for the activity and future reference. The data in Table 2 demonstrates that 100% of RNs strongly agreed that after the educational program, they were more competent to define missed care and acts of omission. Table 2 shows that 96% of nurses strongly agreed in their ability to identify the primary causes of missed care, and describe its effect on HCAHPS scores, as well as to implement strategies to prevent missed care events that align with the nursing policy.

Additionally, 10 of 23 participants commented on the presentation as:

- “Great presentation!”
- “Wonderful presentation!”
- “Great topic!”
- “The content was well organized and resourceful.”
- “Missed nursing care is a new terminology to me; I was enlightened.”
- “I wish that I had this information when I started my career as a new nurse.”
- “The presentation was well prepared and well executed. The presenter had extraordinary knowledge of the content.”

- "Very interesting!! I learned a lot from this topic. Missed care happens a lot in many facilities."
- "This educational program greatly extended my knowledge on missed nursing care and its effect on patients, the institution, and the population at large."
- "It was very helpful to me, I learned a lot, improve my knowledge. Thank you. Marie Dixon-Brown, you are the best. Great job! Thanks again!"

Implications

From the results of this evidence-based practice educational program, the VP of nursing and the CNO of the site have decided that missed care education should be implemented on every nursing unit throughout the organization and its affiliates. The senior leadership of the organization values knowledge acquisition and translation to foster a culture of safety and to improve overall healthcare quality. I will collaboratively work with the nursing education department to present the project on each unit and at the organization's annual nursing research conference. The DNP project data supports that effective staff education on decreasing missed care events is needed during new hire orientation and yearly mandatory competency training. Improving staff knowledge and competence in preventing missed care events can have a positive outcome on patient and family experience, the organization, and nurses' collective efficacy (Smith et al. 2018). The results of this study can be used to educate nurses further to better understand the perils of missed care to patients, organizations, and the nursing profession.

Recommendations

Further education is needed on an interprofessional level to collaborate with all disciplines to foster improved patient experience and social change in healthcare and population health. This capstone project is geared to reduce missed care events and promote a culture of safety when the program is taught during new hire orientation and added to the annual mandatory competency training. The posttest learning evaluation data will be collected by nursing educators to ensure improved knowledge acquisition post the education program. Addressing the gap in nursing knowledge with this education program may reduce the incidence of missed care, patient mortality rates, length of stay, and healthcare cost.

Contribution of the Doctoral Project Team

The project team was instrumental in ensuring the usage of current evidence-based information throughout the project. Each member gave their input associated with their area of practice and passion for patient safety and staff and patient satisfaction. As a team, we met regularly to provide feedback, offer new ideas, clarify questions, and improve the project data as needed to finalize this capstone study to align with the organization's mission and culture.

Strengths and Limitations of the Project

In creating a culture for safety, this project provides an excellent opportunity for healthcare providers and leaders to acknowledge and address the gap in nursing practice related to the prevention of missed care events, as evidenced by frontline nurses. This DNP project provides insights into strategies such as the use of bedside handoff with patient engagement and barcode scanning to improve HCAHPS scores and patient safety.

The key to this study is to recognize the need for educational programs related to the prevention of missed nursing care. Undoubtedly, there is a need to broaden the audience to all healthcare providers for better interprofessional collaboration to improve the patient experience.

Summary

In Section 4, I describe data analysis, implications of the project, contribution of the doctoral team, and recommendations for further change. The strengths and limitations of the project were identified. In Section 5, I describe the dissemination plan, and analysis of self, and provide a summary.

Section 5: Dissemination Plan

The act of dissemination is a scholarly approach for me to fulfill my role as a change agent and a promoter for quality patient and staff experience. There is no knowledge translation if evidence-based data is kept to one's self. Sarver and McNett (2020) outlined that timely dissemination of data, both internally and externally, is essential to translational knowledge and data utilization to advance practice. My practicum site will be my primary dissemination venue focusing on nurses as the leading audience and then proceed to a larger scale. I plan to disseminate the findings of my project via networking to populate, transmit, and implement changes at the organizational level to incorporate healthcare professionals utilizing presentations and publications to improve patient outcomes.

Analysis of Self

I started my doctoral degree journey in the spring of 2017, when my previous Vice President of Nursing, the late Dr. Dorothy-Jean Graham-Hannah, an exemplary nurse leader, challenged me to resurrect the scholar and social change agent in myself. I took the experiment to enhance my leadership competencies, such as relationship management, communication, and knowledge of the healthcare environment by registering in Walden University's DNP program. Working on my DNP study, I gained experience in the implementation of evidence-based practice in acute settings, learned how to communicate with varying mediums effectively, and improve my scholarly writing.

I learned how to efficiently evaluate evidence to promote best practice approach care, which led to one of my most essential roles as a project manager. I acquired the skill of relying on interprofessional collaboration for expert knowledge and feedback, as well as communicating and engaging with primary stakeholders and maintaining the agreed timeline. I also learned how to accept rejection and pushbacks by orchestrating strategies to inform, engage, and collaborate to achieve improvement in patient experience, quality of care, and cost.

Summary

The development of this DNP staff education program to educate RNs on decreasing missed care events aligns with my endeavor to support safe, quality care, and improved patient experience. The results from this project may expand nurses' knowledge of missed care events and how to prevent them as well as joining forces with other disciples to work collaboratively to improve patient outcome and experience. The results may further highlight that missed nursing care is a universal patient care issue that affects outcomes for patients, nurses, and healthcare institutions (see Dabney, Kalisch, & Clark, 2019). Based on these findings, this DNP project may stimulate positive social change and subsequently force measures to be taken to implement strategies to empower and educate nurses on the causes of missed care and how to reduce missed care events.

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Appendix A: Expert Panel Review Form

Program Element	**Evaluation Question**	**1 Strongly disagree**	**2 Disagree**	**3 Neutral**	**4 Agree**	**5 Strongly agree**
Objectives	The program objective(s) are clear and achievable.					
	The program objectives are aligned with the program presentation and posttest.					
	Comments (Optional):					
Presentation Materials	The presentation adequately addresses the program objectives.					
	The presentation integrates current evidence and scholarly literature.					
	The presentation is professionally developed, well organized, and free of grammatical/spelling errors.					
	Comments (Optional):					
Participant Post Program Evaluation Tool	The post program evaluation tool is clear and professionally prepared.					
	Comments (Optional):					
Participant Posttest	The program posttest is clearly written and addresses the key elements addressed in the presentation.					
	Comments:					

Appendix B: Draft Missed Care Posttest

1. Missed care is defined by the AHRQ as:
    a. Delayed, unfinished or partially completed nursing care.
    b. Providing care that patient and family prefer.
    c. Completion of all prescribed nursing orders.
    d. Ineffective nursing care.
2. Missed care is considered a patient care error. It is classified as:
    a. An error of commission.
    b. Failure to rescue.
    c. An error of omission.
    d. A near miss event.
3. Missed care directly impacts:
    a. Inpatient healthcare facilities in the rural region of the U.S.
    b. Healthcare facilities only in North America.
    c. The experience of patients and their families, and organizations globally.
    d. Healthcare facilities in Third World countries.
4. Which of the following is not a primary cause of missed care?
    a. Ineffective teamwork and communication.
    b. Lack of bedside report/handoff.
    c. Poor HCAHPS scores.
    d. I can do everything by myself.

5. Missed care can result in:
    a. Decreased nursing satisfaction.
    b. Adverse patient outcomes.
    c. Poor patient satisfaction.
    d. All of the above.
6. Predictors of missed care include all of the following except:
    a. Staffing levels.
    b. Teamwork and communication.
    c. Nurse experience level.
    d. Work environment.
7. According to a Systematic Review by Griffiths et al. what percentage of nurses reported having at least one missed care event in the past week?
    a. 10%
    b. 20%
    c. 35%
    d. Over 50%
8. According the hospital nursing policy the barcode scanning system must be used for all medication administration to achieve all of the following goals except:
    a. Reduce missed care events.
    b. Improve patient safety.
    c. Track nursing performance.
    d. Improve hospital revenue.

9. Nurse-led strategies for reducing missed care include:

    a. Clearly communicating with members of the healthcare team.

    b. Completing bedside handoff reports that include the patient.

    c. Including the patient in planning their care.

    d. All of the above.

10. Which of the following is not associated with bedside handoff report?

    a. Improved patient satisfaction.

    b. Reduced missed care events.

    c. Lawsuits and patient complaints.

    d. Improved patient safety.

Appendix C: Participant Program Evaluation Form

PARTICIPANT PROGRAM EVALUATION FORM

As a learner please assist in the evaluation of this presentation. Please circle the number beside each statement that best reflects the extent of your agreement. Thank you.

		Disagree		Agree	
Content					
1.	The content was interesting to me.....	1	2	3	4
2.	The content extended my knowledge of the topic.....	1	2	3	4
3.	The content was consistent with the objectives.....	1	2	3	4
4.	The content was related to my job.....	1	2	3	4
5.	Objectives were consistent with purpose/goals of activity.....	1	2	3	4
Setting					
1.	The room was conducive to learning.....	1	2	3	4
2.					
3.	The learning environment stimulated idea exchange.....	1	2	3	4
4.	Facility was appropriate for the activity.....	1	2	3	4
Presenter Effectiveness					
1.	The presentation was clear and to the point.....	1	2	3	4
2.	The presenter demonstrated mastery of the topic.....	1	2	3	4
3.	The method used to present the material held my attention.....	1	2	3	4
4.	The presenter was responsive to participant concerns.....	1	2	3	4
Instructional Methods					
1.	The instructional material was well organized.....	1	2	3	4
2.	The instructional methods illustrated the concepts well.....	1	2	3	4
3.	The handout materials given are likely to be used as a future reference.....	1	2	3	4

4.
5. The teaching strategies were appropriate for the activity..... 1 2 3 3

After this program my competence in understanding and preventing missed care events has increased for the following course objectives:

1.Define missed care and acts of omission.	1	2	3	4
2.Identify primary causes of missed care.	1	2	3	4
3.Describe the effect of missed nursing care HCAHPS scores, safety, revenue, nurse satisfaction, and patient outcomes.	1	2	3	4
4.Discuss strategies for preventing missed care.	1	2	3	4
5.Describe the missed nursing policy.	1	2	3	4

Comments:

Appendix D: Draft Staff Education Program

Method of Evaluation: Completion of Education Evaluation Form

Objectives: Upon completion of the missed care education program, the learner will be able to:

1. Define missed care and acts of omission.
2. Identify primary causes of missed care.
3. Discuss strategies for preventing missed care.
4. Describe the missed nursing policy including timely barcode scanning

Objective	Content (Topics)	Time Frame	Faculty	Teaching Method
1	Introduction to DNP project and question	5-7 minutes	Dixon-Brown	Interactive
2	Causes and effects of missed care	5-7 minutes		
3	Nursing strategies for preventing missed care Assessment Planning Implementation Evaluation	10-15 minutes		
4	Policy review related to missed care events	2-3 minutes		
	Conclusion – Questions and Answers	8-10 minutes		

Introduction

- Missed care is unfinished nursing or partially completed care
- Highly prevalent problem in healthcare with negative consequences for patients, nurses, and the healthcare organization
- Error of omission which is a subset missed nursing care due to inefficiency in coordination, provision, and evaluation of prescribed interventions to optimize patient outcomes.
- Missed nursing care is any facet of required patient care that is omitted either in part or in whole or delayed.
- A global issue that affects the experience of patients and their families, the organization, and the nurses' collective efficacy.
- Missed nursing care is correlated with patient falls, patient dissatisfaction, 30-day readmission among patients with chronic diseases, increased LOS, poor patient outcomes, nurse turnover rate, and ties directly to reimbursement.

- Tangible clinical outcomes including quality of care delivery, medication errors, hospital-acquired infections (HAIs), falls, patient mobilization, pressure injuries, mortality, and reduced HCAHPS scores.

Project Question: After completion of a RN education program on missed care will participants agree that they have improved their knowledge and competence in preventing missed care events?

Primary Causes of Missed Nursing Care

- Ineffective communication
- Ineffective delegation skills
- Limited skill mix
- Poor time management
- Rationing of resources
- Time constraints

Strategies to Improve the Incidence of Missed Nursing Care

- Create a team
- Incorporate face-to-face bedside handoff during change of shift and the transferring of care from one care giver to the next – must include patient/family.
- Spend time to listen and show empathy
- Create a culture of safety (Just Culture)
- Manage pain effectively
- Start discharge planning early
- Building a star rating for your institution
- Appoint safety leaders for the team- example (Barcode scanning must be used every time)

- Incorporate other disciplines within the team
- Improve patient and family education
- Housekeeping is everyone's job