



Walden University
ScholarWorks

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies
Collection

2015

The Effect of Evaluating a Quality Improvement Initiative on Reducing Hospital Transfers of Nursing Home Residents

Denise Eileen Jarboe
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Family, Life Course, and Society Commons](#), and the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Denise E. Jarboe

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.

Review Committee

Dr. Alice Conway, Committee Chairperson, Health Services Faculty
Dr. Cheryl Holly, Committee Member, Health Services Faculty
Dr. Leslie Hussey, University Reviewer, Health Services Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2015

Abstract

The Effect of a Quality Improvement Initiative on Reducing Hospital Transfers of
Nursing Home Residents

by

Denise Eileen Jarboe

MSN, Walden University, 2010

BS, University of Maryland, 1981

Project Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

February 2015

Abstract

Nursing homes (NH) in the 21st century provide skilled healthcare services for resident populations who are older, frailer, and often suffering from multiple incurable chronic medical conditions. Nurses practicing in this setting must be keen observers and effective communicators with the ability to recognize and report subtle changes in health status that may lead to an avoidable or unnecessary hospital transfer. The purpose of this DNP project was to evaluate the impact of a quality assurance performance improvement (QAPI) initiative implementing the INTERACT™ (interventions to reduce acute care transfers) SBAR (situation, background, assessment/appearance, recommendation) communication tool in a skilled NH setting. The Synergy Model, which posits that optimal patient outcomes are possible when nurse competency is matched or synergized with patient care needs, provided the conceptual framework for this project. To evaluate the effect of the program, resident hospital transfer events groups before and after SBAR utilization ($n = 295$) were analyzed using a dependent t test to determine if significant differences existed in the groups in overall number of transfers, clinical condition categories, and those leading to an inpatient hospitalization. Although analysis of the data did not demonstrate significant decreases in resident transfer events, the results did provide valuable baseline information for future studies. This project contributed to social change by evaluating communication among care providers in a skilled NH setting, establishing baseline information and identifying the need for future projects. This information is vital for determining which resident transfers to the hospital are avoidable and for developing future programs addressing this practice issue.

The Effect of Evaluating a Quality Improvement Initiative on Reducing Hospital
Transfers of Nursing Home Residents

by

Denise Eileen Jarboe

MS, Walden University, 2010

BS, University of Maryland, 1981

Project Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

February 2015

Dedication

Words cannot describe the love and gratitude I have for family and friends who supported me during this journey. To my grandchildren, Paisley and Nolan, for reminding me what is most important for a happy life, and to my husband, Don, for always believing in me and making all things possible.

Acknowledgments

This project would not have been possible if not for the support and guidance of my professors, mentors, and preceptors. Many thanks to Dr. Kelly Chermack for her editing support; Dr. Cheryl Holly for her constructive advice; Dr. Leslie Hussey for her expertise; Dr. Louis Kaufman for his vision and direction; Susanne Wise-Campbell for graciously sharing her time and insights; and Dr. Alice Conway for her wisdom, encouragement, and motivation to keep going even when things seemed overwhelming. And finally, my heartfelt thanks to Mary Teresa Robinson our program champion, my mentor, preceptor, friend and inspiration for undertaking a project for promoting nursing excellence in a long-term care setting.

Table of Contents

List of Tables	iv
List of Figures.....	v
Introduction.....	1
Problem Statement.....	6
Purpose Statement.....	9
Project Objectives	11
Significance and Relevance of the Project.....	12
Implications for Social Change.....	13
Definition of Terms.....	14
Assumptions and Limitations	17
Summary.....	19
Introduction.....	21
Research Evidence	22
Theoretical Context and Program Framework.....	26
Process Model.....	30
Summary.....	32
Introduction.....	34
Approach.....	34
Quality Improvement Project Approach.....	35
Protection of Participants.....	42
Data Collection	43

Data Analysis	44
Statistical Significance.....	51
Summary of Findings.....	51
Summary of Table.....	54
Section 4: Findings, Discussion, and Implications	58
Summary of Findings.....	58
Standards of Nursing Care Practices.....	60
Quality of Care.....	60
Social Change	61
Project Strengths and Limitations.....	62
Strengths	62
Limitations	63
Analysis of Self.....	65
As a Scholar	65
As a Practitioner.....	66
As a Project Developer	67
Summary and Conclusion.....	68
Section 5: The Scholarly Product	70
Project Summary.....	70
Project Evaluation Report.....	71
References.....	73
Appendix A: Permission to reprint INTERACT™SBAR Communication Tool.....	85

Appendix B: Institutional Review Board Confirmation Number	86
Appendix C: Permission to Do Research.....	87
Appendix D: IBM®SPSS T-Test Data Analysis Summary	88
Appendix E: IBM®SPSS T-Test data analysis summary.....	89

List of Tables

Table 1. Facility population descriptive characteristics.....	46
Table 2. Resident hospital transfers pre and post INTERACT™ SBAR by clinical condition categories.....	51
Table 3. A comparison of resident hospital transfers by clinical symptoms/body system during January 1st to August 31 st 2013 and January 1 st to August 31 st 2014.....	53
Table 4. Resident transfer events resulting in hospital admissions.....	55
Table 5. Summary of <i>t</i> test statistics.....	58

List of Figures

Figure 1. INTERACT™ SBAR communication tool.	5
Figure 2. Program theoretical and conceptual model.	34
Figure 3. Plan Do Check Act (PDCA) the quality improvement framework.	36
Figure 4. Project plan: A Balanced scorecard.	43

Section 1: Overview of Scholarly Project

Introduction

While advances in modern medical science, technology, and pharmacology have increased the life expectancy for Americans, this increased *quantity* of life does not guarantee a reciprocal increase in the *quality* of life. According to recent statistics, 5% of persons over the age of 65 are living in facilities that provide assistance with daily care needs; 15% of those over the age of 85 reside in nursing homes (NH); and more than 50% of persons surviving to age 90 will require 24 hour skilled nursing services (Centers for Disease Control and Prevention [CDC], 2013; U.S. Census Bureau, 2013). Predictions are for the aging population in the United States to increase 36% during the 2010-2020 decade with an additional 20% to be over the age of 65 years by 2030 (Reifsnyder & Yeo, 2011; World Health Organization [WHO], 2013). Population growth, consumer demand, regulatory controls, and resource limitations justify the need for nurses to champion programs that promote health and wellness for elderly nursing home residents by improving the quality of care rendered. Although differences can exist among some nursing homes (NH), skilled nursing (SNF) and long-term care (LTC) facilities, for the purpose of this paper these terms will be used interchangeably.

Achieving nursing excellence in nursing facilities providing care to the elderly requires nurses to possess the knowledge and skills to apply critical thinking and timely intervention with heartfelt compassion. Because many elderly nursing home clients suffer from multiple incurable medical conditions, eliminating the cycle of frequent and often unnecessary hospital visits requires a change in current attitudes and approaches to

managing chronic disease in this population. For these individuals what may have started as minor symptoms relating to a simple infection or exacerbation of a chronic condition can evolve into a costly catastrophic hospitalization. In a 2010 pilot study where they investigated nursing home resident transfers to acute care hospitals, Ouslander, Lamb, Perloe, Givens, Kluge, Rutland, Atherly, and Saliha (2010) reported that “As much as 67% of the transfers from the cases they reviewed could have been avoided had the nursing home personnel had the training and support for better managing of non-emergent changes in resident condition” (p.627).

An additional concern is the prevalence of readmissions to the hospital of recently discharged nursing home residents. According to Mor, Intrator, Feng, and Grabowski (2014), “In 2006 the rehospitalization rate was 26.8% for those previously residing in a nursing home and 19.4% for those who had been residing in the community” (p.60). Frequent transitions of care can lead to decreased quality of health care services and increased costs.

As the complexity of the care for the elderly has increased, so too has the expectation for a higher quality and level of care to be delivered cost effectively in SNF. While there is evidence to suggest a need for more registered nurses (RN) to manage increased patient acuity in nursing homes, as a consequence of economic declines and decreased revenue, many nursing homes elect to employ less costly licensed practical nurses (LPN; Mueller, Anderson, McConnell & Corazzini, 2012; Seblega, Zhang, Breen, Paek & Wan, 2010). Without adequate knowledge, skills, and tools LTC nursing personnel may fail to recognize and report significant changes in resident health status


that could result in an unnecessary resident transfer to the emergency department or a preventable hospital admission. Providing nurses with the skills and knowledge and tools for detecting and reporting changes in resident health status effectively will help alleviate the need for frequent transitions in care and reduce the risk for adverse outcomes often experienced by the frail elderly in acute care settings.

Skilled nursing facilities are mandated by the Centers for Medicare and Medicaid Services (CMS) regulation, Quality Assessment and Assurance (QAA) at 42 Code of Federal Regulations (CFR), Part 483.75(o) to form a committee for developing and implementing plans of action for correcting quality of care deficiencies identified by surveyors (CMS, 2013). While the QAA regulation provides agencies with a freedom of choice for determining the means and methods a nursing facility employs for accomplishing goals, recent CMS guidelines recommend the merging Quality Assurance and Performance Improvement (QAPI) processes for sustaining quality of care and life for nursing home residents (CMS, 2013). Having identified potentially avoidable or unnecessary resident transfers to acute care hospitals as a problem warranting intervention and evaluation the QAPI committee including the administrator/chief financial officer, chief nursing officer, nurse managers, medical director, and the nurse educator/staff development coordinator at the Charles County Rehabilitation and Nursing Center (CCRNC) the site for this project elected to implement and evaluate the impact of an INTERACT™ communication tool.

The INTERACT™ (Interventions to Reduce Acute Care Transfers) program has been shown to be a cost effective quality improvement plan for reducing unnecessary

resident transfers to acute care hospitals (Ouslander & Berenson, 2011; Ouslander, et al. 2011; Ouslander et al. 2014). INTERACT™ is an educationally based quality assurance performance improvement program developed by Ouslander and Perloe (2007) and expanded by professional team based at Florida Atlantic University (FAU). This program offers LTC providers strategies and tools for improving inter-intra disciplinary communication and care processes within the LTC environment (FAU, INTERACT™, 2011). The INTERACT™ program offers a variety of tools for improving communication in LTC settings, however, the intent of this project is to evaluate the impact of implementing a single tool, the INTERACT™ SBAR communication tool (see Figure 1).

The purpose of this project was to evaluate the effect of a quality improvement initiative implementing the INTERACT™ SBAR communication tool in a SNF located in a southern Maryland suburb. In this study, I evaluated the impact of the quality initiative by comparing resident transfer events pre SBAR implementation (January 1st to December 31st 2013) and post SBAR implementation (January 1st to August 31st 2014). Paired samples *t* tests were conducted to determine whether significant differences existed between the resident transfer event groups by overall number, resident clinical care conditions, and those that resulted in a hospital admission.



SBAR

Physician/NP/PA Communication and Progress Note

Before Calling MD/NP/PA:

- Evaluate the resident, complete the SBAR form (use "N/A" for not applicable)
- Check VS: BP, pulse, respiratory rate, temperature, pulse ox, and/or finger stick glucose if indicated
- Review chart (most recent progress notes and nurse's notes from previous shift, any recent labs)
- Review an INTERACT II Care Path or Acute Change in Status File Card if indicated
- Have relevant information available when reporting (i.e. resident chart, vital signs, advanced directives such as DNR and other care limiting orders, allergies, medication list)

S SITUATION

This is _____ (nurse) I am calling about _____ (Resident's name)

The problem/symptom I am calling about is _____

The problem/symptom started _____

The problem/symptom has gotten (circle one) worse/better/stayed the same since it started _____

Things that make the problem/symptom worse are _____

Things that make the problem/symptom better are _____

Other things that have occurred with this problem/symptom are _____

B BACKGROUND

Primary diagnosis and/or reason resident is at the nursing home _____

Pertinent medical history/include recent falls, fever, decreased intake/fluids, CP, SOB, other _____

Mental Status or Neuro changes: (Y/ N: confusion/agitation/lethargy) Temp _____ BP _____

Pulse rate/rhythm _____ Resp rate _____ Lung Sounds _____

Pulse Oximetry _____ % On RA _____ on O2 at _____ L/min via _____ (NC, mask)

GI/GU changes (nausea/vomiting/diarrhea/impaction/distension/decreased urinary output) _____

Pain level/location/status _____

Change in function/intake/hydration _____

Change in Skin Color _____ Wound Status (if applicable) _____

Labs _____

Medication changes or new orders in the last two weeks _____

Advance Directives (Full code, DNR, DNI, DNH, other, not documented) _____

Allergies _____ Any other data _____

A ASSESSMENT (RN) or APPEARANCE (LPN)

(For RNs): What do you think is going on with the resident? (e.g. cardiac, infection, respiratory, urinary, dehydration, mental status change?) I think that the problem may be _____ - **OR**

I am not sure of what the problem is, but there had been an acute change in condition.

(For LPNs): The patient appears _____ (e.g. SOB, in pain, more confused)

R REQUEST

I suggest or request:

- Provider visit (MD/NP/PA)
- Monitor vital signs (Frequency _____) and observe
- Lab work, xrays, EKG, other tests _____
- Medication changes _____
- New orders _____
- IV or SC fluids _____

Staff name _____ RN/LPN

Reported to: Name _____ (MD/NP/PA) Date ____/____/____ Time _____ am/pm

If to MD/NP/PA, communicated by: Phone Fax (attach confirmation) In person

Patient name _____

(Please see Progress Note on back of this Form)

Figure 1. INTERACT™ SBAR communication tool. SBAR offers nurses practicing in LTC facilities a structured communication tool which enables them to communicate more effectively with physicians and other members of the healthcare team, changes in resident status that may require medical intervention and/or changes to interdisciplinary plan of care. From Interact: Interventions to reduce acute care transfers, Copyright 2011, Florida Atlantic University. Written permission to use (Appendix A).

Problem Statement

Potentially avoidable and unnecessary resident transfers to the hospital for treatment related to the inability of nursing personnel to recognize and report significant changes in the health status of elderly nursing resident changes to providers, timely and effectively, is a practice issue impacting cost and quality of care in LTC settings.

According to Ouslander and Berenson (2011), “Many nursing home resident transfers to acute care facilities are inappropriate, avoidable, or related to conditions that could be treated outside the hospital setting; costing \$4 billion a year” (p.1166). Prior to October, 2012, Medicare reimbursement regulations offered providers little incentive to improve transition of care processes, however, the reality of a more than a 17 billion dollars cost related to the frequency of hospital readmissions prompted legislative action from policymakers. On October 1, 2012 the Centers for Medicare and Medicaid Services (CMS) initiated the Medical Hospital Readmissions Reduction Program decreasing reimbursement to acute care hospitals with excessive readmissions. This new reimbursement policy stimulated interest creating a window of opportunity for nursing to participate in a project to reduce potentially unnecessary or avoidable resident transfers to acute care hospitals in this LTC facility.

While it is difficult to isolate any single factor influencing the decision to hospitalize a nursing home resident, statistics indicate that older adults with multiple chronic illnesses receiving dual benefits (Medicare and Medicaid) and those currently residing in a long-term care facility are at greater risk for experiencing a potentially

preventable acute care hospitalization than others (Maslow & Ouslander, 2012).

Polniaszek, Walsh, and Weiner (2011) have suggested that:

Avoidable resident Preventable conditions such as those medical conditions that may have been transfers can be divided into 3 clinical categories: 1. corrected or avoided if nursing home staff had intervened or provided treatment sooner such as upper respiratory infections, urinary tract infections, electrolyte imbalances, and coagulation disturbances; 2. Discretionary hospitalizations conditions that could be managed by the nurses in the skilled facility such as pneumonia, congestive heart failure (CHF), asthma or sepsis, and 3. Futile care or end stage medical treatments that will neither improve nor change the quality of life or outcome for the resident (p.3).

Decisions to send an elderly nursing home resident to the hospital for treatment are impacted by the perceptions and expectations of both the healthcare provider and consumer, about what constitutes effective medical care across the care continuum. In LTC facilities breakdowns in communication between nurses, physicians, and other health care providers about changes in resident health status contribute to the incidence of costly, unnecessary resident transfers to hospital (Ouslander et al., 2009; Tjia, et al., 2009). Lamb, Tappen, Diaz, Herndon and Ouslander (2011) reported the most common reason for avoidable or possibly avoidable transfers were related to: missed opportunities for preventing the transfer before or after the onset of symptoms (31.9%); communication gaps between providers and resident family members (13.0%); insistence of resident and or family for transfer; and lack of adherence to advance directives (11.1%; p.1668).

Many physicians and other members of the long-term care interdisciplinary team fail to understand the differences in nursing licensure and how this impacts the education requirements, skills training, and scope of practice responsibilities for professional nurses. Misperceptions and stereotyping about the role and responsibilities of nurses working in LTC can impact consumer expectation and professional collaboration. Provider perceptions of nurse ability can also significantly impact professional trust and contribute to ineffective communication and ultimately impact resident care. As Leonard, Graham, and Bonacum (2004) explain “A large and ever present cultural barrier is the deeply embedded belief that quality of care and error free clinical performance are the result of being well trained and trying hard” (p.86). This belief can perpetuate misperceptions and contribute to miscommunication between nurses and inter and intra disciplinary teams. Training LTC nurses irrespective of licensure, then, to use a consistent communication format such as the SBAR was the basis of the original quality improvement effort. The QAPI team predicted that intra-interdisciplinary collaboration and communication would be improved by implementing the SBAR communication tool as evidenced by a reduction in the number of resident hospital transfers.

The practice problem, identified by the QAPI team at the facility where I conducted this study, was potentially unnecessary or avoidable hospital transfers of residents to acute care hospitals relating to nurse physician and other care providers miscommunication. The INTERACT™ SBAR communication tool was implemented to provide the nursing staff with a consistent format for reporting pertinent information to physicians and other care providers about changes in resident health status which could

prevent an unnecessary hospitalization. Factors that contributed to the need for this training were differences in communication styles between care providers and variable training and licensure among nursing staff.

According to Leonard, Graham, and Bonacum (2004) physicians are often trained to provide a concise to the point report in contrast to a broad narrative relating to the comprehensive care plan the nurses frequently attempt to provide. There is also evidence to support the occurrence of the physician lack of attention, interrupting, and unprofessional or abrupt behavior when they perceive the nurse as unprepared or attempting to provide meaningless information (Sirota, 2007; Tjia et al., 2009). Nurses often become anxious or reluctant to communicate with a physician who becomes impatient or fails to listen to the information being conveyed (Shannon, 2012; Sirota, 2007; Tjia et al., 2009). These differences in speaking/listening styles can lead to ineffective information sharing and may have a devastating effect on patient outcomes.

Miscommunication has been identified as a significant root cause for adverse outcomes including patient deaths in hospital settings (Beckett & Kipnis, 2009). Providing the nurses working in this LTC facility with the training to use the INTERACT™ SBAR communication tool will offer them the knowledge and tools for evaluating and report changes in resident health status more effectively which may reduce potentially unnecessary or avoidable hospital transfers.

Purpose Statement

Motivated by a desire to improve patient outcomes by reducing resident transfers to the acute care hospital, the QAPI team at the LTC facility involved in my study elected

to implement the INTERACT™ SBAR communication tool for observing and reporting pertinent information about changes in a resident's health status to the physician and other care providers. Effective communication and interdisciplinary collaboration are essential components of cost effective healthcare systems. The elderly residents who rely on the care provided by staff in a LTC organization can benefit from programs that reduce transitions in care and help to eliminate overlapping of professional services (Buchanan et al., 2006; Jablonski, Utz, Steeves, & Gray, 2007). The SBAR communication tool has been shown to enhance communication between healthcare providers contributing to the collaborative process, promoting teamwork, improving employee morale and work performance in a variety of healthcare settings (Berkowitz et al., 2011; Havens, Vasey, Gittell, & Lin, 2010).

Developing and implementing successful and sustainable organizational change programs for improving inter and intra disciplinary communication will reduce transitions in care errors, overlapping of services, reduce costs, and improve quality of care provided to the elderly in the United States (Tjia, et al., 2009; Toles, Young, & Ouslander, 2013). Studies have shown that providing nurses with the tools and training to recognize, evaluate, and effectively communicate changes in resident health status to care providers can improve quality of care indicators and reduce healthcare costs (Lamb et al., 2011; Ouslander, Bonner, Herndon, & Shutz, 2014; Ouslander et al., 2010).

Miscommunication can negatively impact productivity, job satisfaction, and performance of personnel within organizational settings. The Joint Commission (TJC) identified failures in communication as a frequently contributing root cause of sentinel

event occurrences in hospitals (2013, p.8). The SBAR communication format can help to improve communication between the nurse and physician by providing a structured format to use when reporting changes in resident status to providers. Nurses working in LTC facilities must have the knowledge and ability to work effectively with care providers to ensure optimal patient outcomes are achieved. The purpose of this DNP project was to evaluate the effect a quality initiative implementing the SBAR communication tool in a LTC facility. The impact of the quality initiative was determined by comparing resident hospital transfer events before and after SBAR program was implemented. The number and clinical condition types of resident transfers were compared pre and post implementation of the INTERACT™ SBAR communication tool to determine significance of the quality initiative.

Project Objectives

The primary objective for this project was to evaluate a QAPI program at a facility where administrators were implementing the SBAR communication tool, specifically in a LTC setting. The impact of the SBAR was determined by comparing resident transfer events pre and post implementation of the program. The intent of the nursing administrative staff implementing this program was to improve care quality and reduce cost by providing the nursing staff with the training and tools for documenting and communicating changes in resident status to care providers more effectively. According to Ouslander, Bonner, Herndon, and Shutz (2014), “INTERACT provides LTC organizations with a means for developing QAPI program plans with an initial focus on

reducing hospital admissions that addresses many care processes throughout the entire organization” (p.169).

Adopting the INTERACT™ program, which includes strategies and tools for enhancing inter and intra disciplinary communication has been shown to improve quality of care indicators and reduce costs in long-term care organizations (O’Malley, Caudry, & Grabowski, 2011; Ouslander et al., 2011). The overall goal of this project was to evaluate the effect of a quality initiative to reduce potentially unnecessary or avoidable resident hospital transfers by implementing one of the tools and strategies recommended by the INTERACT™ team; the SBAR communication tool. This was accomplished by comparing resident hospital transfers before and after the SBAR reporting format was implemented in this LTC facility.

Significance and Relevance of the Project

Managing changes in resident healthcare status effectively in the LTC setting requires nursing staff at all levels of practice to have the knowledge and skills to detect, observe, report, and intervene before symptoms worsen leading to the need for transfer to acute care facility. Without adequate training and support LTC nurses may fail to recognize early indicators of a change in health status of the resident. Deficient nursing skills for observing and reporting changes in the elderly may result in poor management of chronic conditions and lead to exacerbations requiring acute care hospitalizations.

In 2009, an estimated 33 million Americans received care in one of the more than 16,000 nursing homes in the United States (Toles, Young, & Ouslander, 2013). While the numbers of admissions to nursing homes has risen, the length of stay (LOS) or number of

days an individual remains an inpatient in a SNF has decreased. In contrast to previous decades, the goal for new millennia residents is to receive short-term skilled nursing services and return home with community supported services. Residents remaining in a LTC facility are often frailer and sicker providing challenges to care providers attempting to meet the complex health needs of this fragile population.

Limited economic and staffing resources have impacted the ability of nursing homes to hire RN's exclusively and remain financially solvent. Many nursing homes rely on staffing their facilities with less costly LPN's to resolve their financial difficulty (Seblega et al., 2010). Despite staffing resource limitations and challenges, maintaining high quality standards of care continues to be a priority for most healthcare providers working in LTC settings. As an essential member of an interdisciplinary healthcare team it is important for all nursing personnel working in LTC settings to possess the skills and ability to detect and report signs and symptoms that may result in a potentially avoidable or unnecessary hospitalization of an elderly resident.

Implications for Social Change

Current and future demands on our healthcare system make it imperative for nurses to contribute to change processes that enable them to create synergistic healing environments, matching client needs with cost effective services. Elderly nursing home patients with irreversible pathological compromise relating to complex chronic conditions require vigilance on the part of the nursing staff and healthcare providers to ensure their physical, functional, emotional, and spiritual needs are met.

Effective management of chronic disease is essential for maintaining wellness in the elderly who often describe optimal health outcomes in terms of reduced disability and suffering rather than longevity and mortality. Decisions to send an elderly resident to the hospital for treatment are impacted by the perceptions and expectations of the healthcare providers and consumers about what constitutes effective medical care. The consequences of consumer misperceptions and fragmented healthcare services is a waste of millions of dollars annually, often providing expensive and painful medical treatments that do not change clinical outcomes (Crisp, 2007; Ridenour & Trautman, 2009).

Patients who are elderly are especially susceptible to risk related to medical complications that can occur with transitions of care. Prevention and risk benefit analysis are important aspects of determining which and to what extent therapeutic interventions can best serve the compromised elderly nursing home resident. Other important aspects to consider are where and by whom will these medical services be provided. Optimal care outcomes can be achieved when care providers and consumers have clearly aligned goals and objectives for managing health and promoting wellness. Balancing or synergizing patient needs with provider resources will improve the quality of care and promote nursing practice excellence in the LTC setting.

Definition of Terms

The following terminology and associated definitions are provided to enhance reader familiarity with nursing and medical language:

Certification and Survey Provider Enhanced Reports (CASPER): reports generated by the CMS from MDS assessment data. These reports contain information

relating to facility quality measures and nursing home compare statistics (CMS, 2014). These reports contain useful information about the characteristics of a SNF and were used to provide descriptive statistics.

Clinical condition categories: All resident transfer to the hospital events were categorized into clinical categories as suggested by Polniaszek, Walsh, and Weiner (2011). These categories are: (a) preventable conditions (b) discretionary conditions, (c) futile care, and (d) emergent care.

Daily resident transfer log: quality assurance data collection tool used by Chief Nursing Officer to track resident hospital transfers.

The Joint Commission (TJC): Is a non-profit organization providing healthcare organizations in the U.S. with accreditation and certification. The mission of this organization is to improve public healthcare in the United States (TJC, 2014).

Medical Hospital Readmissions Reduction Program: On October 1, 2012 the CMS initiated this program decreasing reimbursement to acute care hospitals with “excessive readmissions” putting pressure on the hospitals to improve transition from hospital to home or other facilities.

Minimum data set: Interdisciplinary assessment tool used in skilled nursing facilities. MDS assessments are required to be completed on a quarterly basis for newly admitted residents or those with significant change in status warranting care plan revisions, and at least annually for stable long-term care residents.

Quality Assurance Performance Improvement (QAPI): the CMS requires SNF to establish QAPI processes within the organization to proactively seek opportunities for improving quality of care standards and practices (CMS, 2014).

Rehospitalizations: CMS defines readmissions as “An admission to hospital within 30 days of a discharge from the same or another subsection of the hospital” (2013).

SBAR (Situation, Background, Appearance or Assessment, Recommendation or Request): this constructive communication format was originally created by the military to improve communication among personnel of varying ranks and adopted for use in healthcare settings by employees of Kaiser Permanente (Leonard, Graham, & Bonacum, 2004; Thomas, Bertram & Johnson, 2009).

Skilled nursing facility (SNF): a healthcare institution that meets the Medicare and Medicaid reimbursement requirements for providing twenty-four hour nursing and/or rehabilitation services (CMS, 2014).

Because SBAR has been shown to improve patient safety and outcomes The Joint Commission (TJC) recommends the use of this format in acute care settings as a standardized approach to interdisciplinary communication prompting schools of nursing, medicine, and pharmacy to integrate SBAR training into their courses and curricula (Adams & Osborne-McKenzie, 2012; Boaro, Fancott, Baker, Velji, & Andreoli, 2010; Fassett, 2011; Thomas, Bertram, & Johnson, 2009). Using a reporting format that is familiar to nurses, physicians, and other care providers may reduce nurse anxiety when contacting a provider about changes in resident condition, enhance communication, and

improve interdisciplinary collaboration in LTC settings. The purpose for this project is to evaluate a QAPI program implementing the INTERACT™ SBAR communication tool by comparing data relating to resident transfers pre and post implementation of this format. Retrospective and prospective data was collected and analyzed to determine if the program significantly impacted resident transfer to hospital events. Data relating to the resident transfers was obtained from the daily *resident transfer log* maintained by the chief nursing officer. Facility population characteristics information was obtained from CASPER reports generated by CMS.

Assumptions and Limitations

The purpose of this project was to evaluate the impact of implementing the SBAR format in a LTC setting. Implementing quality of care strategies for improving the management of chronic illness is important for care providers striving to maintain wellness in the elderly. According to Healthy People 2020 “Preventative health services are valuable for maintaining the quality of life and wellness of older adults” (DHHS, 2011, para. 2). However, without adequate support and training nurses practicing in SNF may fail to recognize and report early indicators of adverse changes in resident health status that could lead to unnecessary or avoidable hospitalizations. The INTERACT™ SBAR communication tool offers care providers and nurses working in the LTC setting a constructive communication tool for reporting changes in resident health status more effectively which may reduce unnecessary hospital transfers.

Adopting only one of the multiple tools and elements of the INTERACT™ program was a limitation for this project that may have had significant consequences.

According to Ouslander et al. (2014), “Although there has been widespread uptake of INTERACT™ in some cases facilities may only be using some of the tools and overlooking the original model is a concern” (p.169).

An additional concern of the nursing administrative team was the lack of accessibility of the electronic version of the INTERACT™ SBAR, which required the nursing staff to document changes in a resident’s health status in both the electronic health record and in a paper format. Another challenge that I encountered was determining which types of resident transfers could be deemed unnecessary and or avoidable. Including all resident transfer events in the data collection made it possible to overcome this barrier.

There were several limitations of this evaluation study to identify prior to discussing the outcomes.

1. Poorly defined criteria for identifying unnecessary or avoidable resident transfers.
2. Variables in nursing scope of practice and education levels.
3. Incompatibility of facility health information technology and the electronic version of the INTERACT™ SBAR documentation form.
4. Transfer data was collected from a single site convenience population sample.
5. Length of time of pre and post SBAR comparisons was unequal.
6. Program for reducing unnecessary transfers was limited to adopting the INTERACT™ SBAR communication form only.

The research design and methodology that I used for this project did not meet the rigorous standards required for evidence based research. To minimize bias, the research

methods must have both a high internal and external validity (Wyatt, 2010). Data from this study may provide valuable baseline information that can be used for developing and implementing future QAPI programs. Quality improvement studies are an important resource for evaluating clinical performance and process efficacy – but often fail to meet research methodology requirements.

Summary

Ineffective communication is a practice issue impacting patient outcomes, cost and standard of care quality. As an essential member of the interdisciplinary health team, nurses working in LTC settings must demonstrate the ability to report changes in resident health status timely and effectively. However, creating a successful and sustainable organizational change program to improve communication in a healthcare setting that employs a diverse work force can be challenging. The nursing staff and other care providers working in LTC facilities often have different levels of education, training and licensure which can impact inter and intra disciplinary communication.

Implementing a quality improvement program to enhance communication by implementing the SBAR communication tool can improve the coordination of services rendered by the interdisciplinary team by aligning patient care goals with organizational resources, reducing the overlapping of services, and providing clarity of task for all of the members of the team. When nurses and providers are able to exchange patient information with consistency and clarity it is much easier to negotiate and implement plan of care interventions.

In this section, I described the rationale and purpose of this study. In Section 2, I will review the literature and conceptual framework that I used as a basis for this study. Section 3, includes a discussion of my approach and methods. In Section 4, I present the results and substantive conclusions. Section 5 contains the scholarly product, where I present the final scholarly product summary and evaluation report.

Section 2: Review of Literature and Theoretical and Conceptual Framework

Introduction

The objective and goal for this quality improvement initiative were to reduce unnecessary resident transfers to acute care facilities by implementing INTERACT™ SBAR communication format. In the literature review recent publications describing determining factors that influence provider decisions to send a resident to the hospital for treatment and to evaluate programs that have been success for reducing unnecessary and avoidable transfers were discussed. While multiple factors that impact resident transfers were considered for this review (such as nurse licensure, staffing, work place satisfaction, and provider perceptions of care provision capabilities), the research evidence relating to the INTERACT™ program, which includes SBAR, proved to be the most comprehensive and relevant to this quality initiative project.

The purpose of this literature review was to synthesize research findings pertinent to the project described in Section 1, evaluating the evidence relating to the impact of INTERACT™ SBAR for reducing unnecessary resident transfers to acute care hospital. I searched multiple electronic data bases including CINAHL, MEDLINE, Ovid, Cochrane, DARE (Database of Abstracts and Reviews of Effects) and Nursing and Allied Health Source, available through the Walden University Library using the key words: *SBAR (Situation, Background, Assessment, Recommendation), nursing home, skilled nursing facility, communication, collaboration, hospital transfers, INTERACT, and teamwork.*

Research Evidence

My review of the literature revealed a lack of research evidence specific to the use and impact of the SBAR communication format in the LTC setting. However, Renz et al. (2010) examined the feasibility and utility of a SBAR protocol in a LTC setting reporting improvements in nurse physician satisfaction with the change in resident status process after the implementation of the INTERACT™ SBAR tool. For this quality improvement project nursing personnel (RN and LPN) employed in a 137 bed skilled nursing facility located in a Pennsylvania suburb were recruited to participate voluntarily in a SBAR protocol training program. The nurses participating in this study reported the SBAR tool to be helpful for improving nurse-provider medical communication and job satisfaction (Renz, Boltz, Wagner, Capezuti, & Lawrence, 2010).

Maslow and Ouslander (2012) reviewed 39 research studies and quality improvement initiatives, exploring the medical conditions that may lead to unnecessary or avoidable hospitalizations. Their review of the evidence including analysis of quality measure data and research studies during the years 1990 through 2011. From their review these researchers were able to identify diagnoses commonly associated with nursing home resident acute care hospitalizations. The intent of their work was to improve identification of potentially preventable hospitalizations for the frail and chronically ill adult.

Based on their research findings, Maslow and Ouslander (2012) reported “the presence of medical comorbidities increased the likelihood of hospitalization for the identified conditions; being dual eligible increased the likelihood of hospitalization for

some conditions; and prior year hospitalization for a medical condition appeared to function as a strong proxy for the severity of the condition” (p.22). Determining which LTC resident transfers to acute care hospital are unnecessary and avoidable can be a challenging task using the information gleaned in this review enabled our team to define the criteria for potentially avoidable and unnecessary resident transfers.

In a comprehensive report where they examined potentially avoidable hospitalizations of LTC residents to acute care hospitals, Polniaszek, Walsh, and Wiener (2011) provide information derived from multiple studies. This report listed medical conditions, rates and prevalence, and factors influencing provider decisions to send resident to acute care facilities. The authors provided additional information relating to research and evidence about the financial considerations and economic incentives for reducing unnecessary resident transfers. The clinical categories described by Polniaszek, Walsh, and Wiener (2011) provided the basis for the data collection and analysis used in this project.

In a retrospective study of hospitalizations, Walsh, Weiner, Haber, Bragg, Freiman, and Ouslander (2012) examined incidence and factors associated with potentially avoidable transfers of residents receiving Medicare and Medicaid benefits from multiple settings (e.g., home, community, SNF). In this study, an expert panel identified five diagnostic conditions (pneumonia, congestive heart failure, urinary tract infections, dehydration, chronic obstructive pulmonary disease, and asthma) that were associated with potentially preventable hospital transfers (Walsh et al., 2012). From their examination of individuals receiving Medicare skilled nursing benefits and those

receiving the Medicaid waiver in 2005, it was determined that the five diagnostic conditions accounted for over 78% of the potentially avoidable hospitalizations with a cost of \$3 billion Medicare dollars (p. 824).

Tjia, Mazor, Field, Meterko, Spendard, and Gurwitz (2009) investigated nurses and physicians' perceptions relating to communication barriers. In this mixed method study, qualitative reviews and survey questionnaire data was used for determining factors contributing to ineffective communication between nurses and care providers in LTC settings. Nurses who responded to the survey identified several barriers to effective nurse/physician communication such as: "a lack of physician openness to communication, a lack of professionalism, language barriers and feeling hurried by the physician" (p.5). Physicians who participated in this study identified the need for brevity when nurses are reporting pertinent clinical information (Tjia et al, 2009).

The impact of factors that influence provider decision to send residents to hospitals such as nurse licensure, staffing, and provider availability were explored by Konetzka, Spector, and Limcango (2008) who reviewed 55 research and quality improvement studies. Based on their evaluation of the evidence presented in these studies, Konetzka et al. (2008) noted a consistent relationship between LTC nursing personnel and the number of transfers of nursing home residents to acute care hospitals for treatment; concluding that two interventions with the most promise for reducing hospitalizations in long-term care are increasing RN staffing and employing the services of nurse practitioners and physician assistants.

In contrast to the conclusions that Konestzka et al. (2008) had deduced from a comprehensive review of the literature pertaining to hospitalizations of nursing home residents, Spilsbury, Hewitt, Stirk, and Bowman's (2010) systemic mapping review of the literature pertaining to nursing home staffing determined that "the existing evidence does not enable any firm conclusions to be drawn when considering the relationship between nurse staffing and quality of care for nursing home residents" (p.746). Although there is no conclusive research evidence relating to RN and LPN staffing and quality of care in nursing homes there are data indicating that RN staffing in hospitals does reduce mortality rates and improve quality of care (Lerner, 2013). While there is evidence suggesting the need for hiring more RN's to manage increased patient acuity in NH, resource limitations make it essential for facilities staffed by LPNs to use them to their fullest capacity (Meuller et al., 2012). Improving LPNs ability to observe and report pertinent data can be achieved by providing educational opportunities for them to hone and cultivate nursing knowledge and clinical skills.

Creating nursing practice standards for improving interdisciplinary collaboration and teamwork is paramount for nursing professionals working with limited resources and a vulnerable patient population such as dependent nursing home residents. Research evidence supports the need for care providers in the LTC setting to embrace the necessity of changing current approaches to detecting, observing, assessing, reporting and treating the frail elderly with chronic illness. Improving interdisciplinary communication in LTC may improve quality of care by reducing unnecessary transfers and inpatient hospitalizations of nursing home residents.

Based on this review of the current literature, implementing a quality initiative for improving inter and intra disciplinary communication by adopting the SBAR communication tool will improve quality of care by reducing potentially unnecessary or avoidable resident hospital transfers. Researchers have demonstrated that improving nurse communication of changes in a resident's health status that may indicate exacerbation of a chronic condition such as diabetes, congestive heart failure, hypertension, and pneumonia in elderly nursing home patients can reduce the incidence of acute care transfers. I suggest the findings support the premise for this DNP project evaluating the effect of a QAPI program for reducing potentially avoidable or unnecessary resident transfers by adopting the SBAR communication tool in this LTC facility.

Theoretical Context and Program Framework

The midrange nursing theory that I selected as the conceptual framework for this study was the American Association for Critical Care Nurses (AACN) synergy model for patient care, developed by the AACN in the 1990's. The conceptual basis for this model is to match or synergize the three outcomes levels nurse, patient, and system. The levels of outcomes of the nurse (competence and performance) the patient (care needs and characteristics) and the healthcare system (resource availability and utilization) when nurse competence and resources meet patient care needs optimal outcomes will be achieved.

Eight patient characteristics defined in the model are "resiliency, vulnerability, stability, complexity, resource availability, participation in care, participation in decision

making, and predictability” (McEwen & Wills, 2011, p. 229). Because patient characteristics are not static, achieving synergy between patient needs and nurse competency requires nurses to possess the skills and knowledge for recognizing and evaluating changes in patient characteristics (Harding & Hussey, 2003).

Nursing competencies, prescribed by the synergy model, are the ability to advocate and assume the role of moral agent, make clinical judgments, promote caring practices, use collaborative and system processes, and facilitate learning and clinical inquiry (AACN, 2011). The AACN synergy model posits that the patient needs and characteristics create the drive or need for nurse competency, and when the two are matched or synergized optimal patient outcomes can occur (AACN, 2004; Cohen, Crego, Cuming, & Smyth, 2002). Matching patient care needs with nurse learning needs will improve nurse practice competency and patient outcomes. The nursing home, hospital or acute care facility, physician, nurse, and the patient/ family must have a clearly aligned or synergized set of care resources, goals, and abilities to achieve optimal outcomes. When the efforts of the interdisciplinary health care team (including patient and family) are coordinated, with each member of the team contributing to the collaborative process, compliance and continuity is achievable and optimal patient care outcomes are possible.

Theoretical frameworks help program planners to identify goals and objectives and to develop strategies for overcoming real and potential barriers to program success and sustainability. Combining the central concepts found in the AACN synergy model of patient care provides an ideal conceptual framework for creating an educational program for enhancing nursing competency to improve patient outcomes in healthcare settings.

The theoretical and conceptual framework for this project was created by integrating the synergy and logic models providing a plan for implementing a QAPI program incorporating the theoretical principles of synergy; balancing or synergizing the expectations of the healthcare consumer with organizational capabilities. Visual models are an important resource for program planners to use to communicate with team members and organizational stakeholders. A visual model of the theory based conceptual framework was used to demonstrate the interactive relationship between consumer expectations, provider resources and also how an educational program for improving interdisciplinary communication may impact this LTC organization; mission, values and vision (see Figure 2).

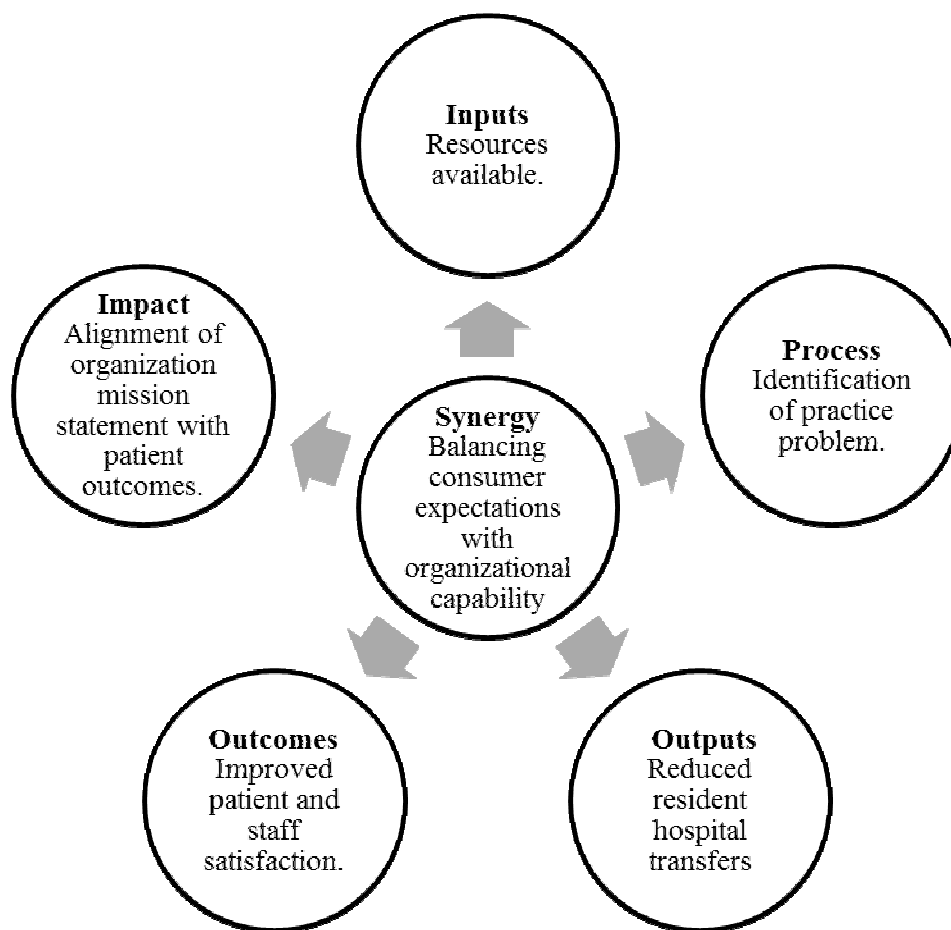


Figure 2. The theoretical and conceptual framework for this project was created by integrating the synergy and logic models providing a plan for implementing a QAPI program incorporating the theoretical principles of synergy; balancing or synergizing the expectations of the healthcare consumer with organizational capabilities. Adapted from “Synergy model of care” American Critical Care Association. Copyright 2004, retrieved, from <http://www.aacn.org/wd/certifications/content/synmodel.pcms?menu=#Basic> , and “Designing and managing programs” by P. M. Kettner, R. M. Moroney & L. L. Martin. Copyright 2013, Sage Publications.

Process Model

Reducing unnecessary resident transfers to acute care hospitals was the overall goal for improving quality of care in this LTC facility; implementing the INTERACT™ SBAR communication tool for reporting changes in resident status to care providers is the strategy the QAPI team developed to resolve this practice problem. Healthcare organizations seeking to improve organizational processes have a variety of models and tools to choose from. The Shewart cycle or PDCA cycle, a simple process consisting of four steps corresponding with the acronym; plan, do, check or study, and act provided the framework for this quality improvement initiative evaluation project (Kelly, 2011). Ongoing evaluation and planning steps as outlined in the model will ensure the goals of the program are achieved. Demonstrating the success and sustainability of this program will encourage the key decision makers and stakeholders at CCRNC to support future projects which will elevate nursing practice standards within the organization and ultimately improve resident care services and outcomes.

Theoretical frameworks help program planners to identify goals and objectives and to develop strategies for overcoming real and potential barriers to program success and sustainability. The conceptual framework for this project was obtained by integrating the central concepts of the AACN synergy model of patient care, the Shewart or PDCA cycle and logic models (see Figure 3).

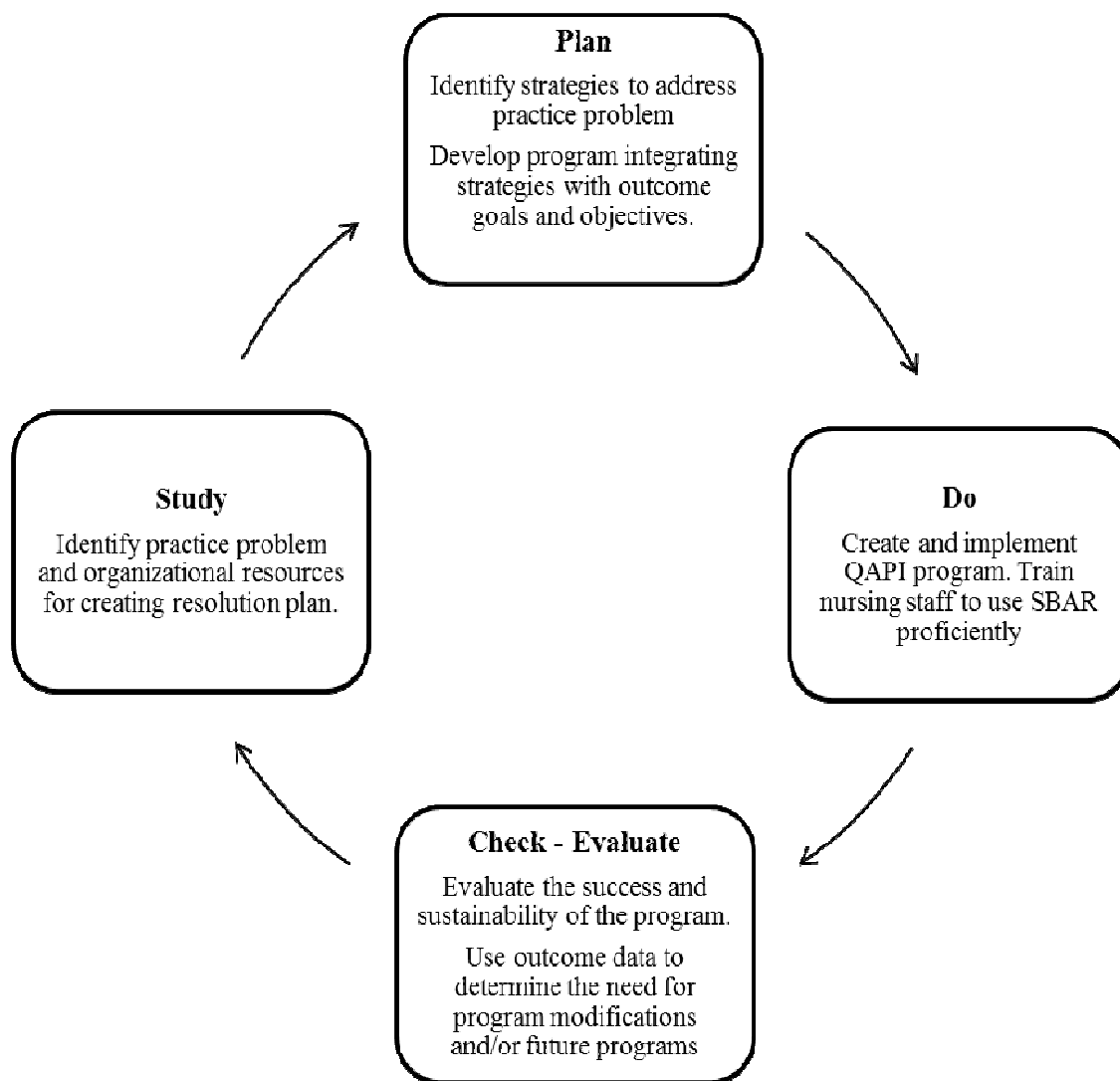


Figure 3. The Shewart or PDCA cycle, a continuous critical thinking process consisting of steps corresponding with the acronym; plan, do, check or study, and act provided the framework for this quality improvement initiative. Adapted from “*Applying quality management in healthcare: A Systems approach*” By D. L. Kelly, Copyright 2011, Health Administration Press.

Summary

The expectation for this QAPI initiative was to improve nurse provider communication by training the nursing staff to use the INTERACT™ SBAR communication tool when reporting changes in resident health status. INTERACT and SBAR have been shown to be a cost effective quality improvement plan for reducing unnecessary resident transfers to acute care hospitals (Ouslander & Berenson, 2011; Ouslander, et al. 2011; Ouslander et al. 2014). The intent of this project was to evaluate the a QAPI program implementing the INTERACT™ SBAR communication tool with the expectation to reduce unnecessary or avoidable resident transfers to acute care hospital and thereby improve the quality of care and life for the residents of this nursing home.

Matching patient care needs with nurse learning needs has been shown to improve nurse practice standards and patient outcomes (AACN, 2004; Cohen, Crego, Cuming, & Smyth, 2002). The nursing home, hospital or acute care facility, physician, nurse, and the patient/ family must have a clearly aligned or synergized set of care resources, goals, and abilities to achieve optimal outcomes. When the efforts of the interdisciplinary health care team (including patient and family) are coordinated, with each member of the team contributing to the collaborative process, compliance and continuity is achievable and optimal patient care is possible. The objective and goals for this project were to evaluate the impact of a QAPI program implementing the SBAR format by comparing resident hospital transfers pre and post implementation of the SBAR communication tool. The conceptual framework for this project was obtained by integrating the central concepts of

the AACN synergy model of patient care, the PDCA (plan, do, check, and act) and logic models. The approach and methods used for meeting project objectives and goals are discussed in the following section.

Section 3: Project Approach and Methods

Introduction

Successful QAPI programs offer organizations valuable information relating to process problems and the efficacy of resolution strategies for addressing them. In the LTC, setting consumer expectations are determined by a variety of factors including health history, number of chronic diseases, willingness and ability to participate in treatment plans, family support, advanced directives, realistic achievable plan of care goals. Establishing nursing care excellence in LTC settings can be achieved by integrating information derived from research literature, quality indicators, and QAPI program evaluation. The expectation for the original QAPI initiative was to improve nurse provider communication by implementing the SBAR communication format which would reduce unnecessary resident hospital transfer and thereby improve the quality of care and life for the residents of this nursing home. The goal of this project was to evaluate the effect of a QAPI initiative implementing the SBAR communication format in a LTC facility by comparing the number and types of resident hospital transfers before and after the SBAR program was initiated.

Approach

The QAPI team at the LTC facility located in southern Maryland identified resident transfers from nursing to the acute care hospital for treatment as a clinical problem impacting resident quality of life. Motivated by the desire to address this issue the medical director, CNO (chief nursing officer), and I, developed a project to

implement and evaluate the impact of the INTERACT™ SBAR communication tool for reducing potentially unnecessary or avoidable resident hospital transfers at CCRNC.

The CCRNC nursing staff consisted of 41 LPNs and 25 RNs who directed by the CNO to attend a mandatory 1-hour educational session that provided them with the training to use the SBAR communication tool when notifying providers of change in resident status and prior to sending residents to acute care facilities for treatment. The training program was completed in January 2014 and all of the nurses demonstrated the knowledge and skills for using this communication format. The CNO implemented a policy change and the staff development coordinator integrated the SBAR communication format into the annual nurse competency and provides training to all newly hired nurses.

Quality Improvement Project Approach

An effective quality improvement program can provide nursing home stakeholders; the administrator, risk manager, CNO, nurse managers, and medical director with a cost effective plan for creating policy/procedural changes that can improve the quality of care within the organization. Quality improvement strategies such as root cause analysis (RCA) help identify cause and effect relationships in adverse patient outcomes or sentinel events. In hospitals when a sentinel event or outcome that has or may result in “serious injury or risk thereof” this process is required by the Joint Commission or JACHO (Kelly, 2010). RCA is an investigative tool that enables healthcare personnel get to the *root* of the problem or determine the cause and effect relationship between a sentinel event and organizational processes and/or environments.

Following the RCA process enabled the QAPI team at this LTC facility to determine the need for improving nurse provider communication in order to reduce potentially unnecessary or avoidable resident hospital transfers. For this project, I evaluated a QAPI program implementing the INTERACT™ SBAR communication form to determine whether it would significantly impact the number and clinical types of resident transfers to acute care hospitals for treatment.

Quality improvement data are an important resource for evaluating clinical performance and process efficacy generated for local or institutional improvement (Melynk & Fineout-Overholt, 2011). While quality improvement programs contribute valuable information about actual and potential problems within the organization the purpose for the study is often directed at improving patient outcomes by investigating routine processes and practices and as such these endeavors can fail to meet the rigorous standards of traditional research methodologies (Shojania & Grimshaw, 2005). However, the information gleaned from evaluating the efficacy of this quality improvement program may provide a framework for future projects.

Creating sustainable organizational change requires the identification of and development of strategies for overcoming barriers to program success. Resistance to change and economic concern are two barriers that may impact the success and sustainability of QAPI programs. In the LTC setting, the members of a continuous quality improvement committee (CQI) often provide nursing home stakeholders such as the chief financial officer, facility administrator, medical director, and members of the nursing administrative team with information for identifying and evaluating the efficacy of care

policy and procedures contributing to actual and potential problems within the organization.

Provider capability is determined by organizational mission and vision clarity, regulatory controls, internal and external resources and personnel commitment to quality assurance and performance improvement programs. Organizational realities, limitations, and potential barriers to successful outcomes include: variability in educational needs of staff to achieve optimal training, administrative support and willing to commit resources, physician support, staff participation and willingness to learn, and accept process changes. Effective management teams in healthcare settings strive to provide consumers with the highest standard of care at the lowest cost often use organizational strategies such as a balanced scorecard for improving performance and quality processes.

According to Kelly (2011), “A balanced scorecard may be thought of as compass providing a guide for managers selecting the metrics to measure, evaluate, and improve performance in their department or organization” (p.177). To provide stakeholders with additional guidance, a visual illustration was created identifying the components of the project using the balanced scorecard model (see Figure 4).

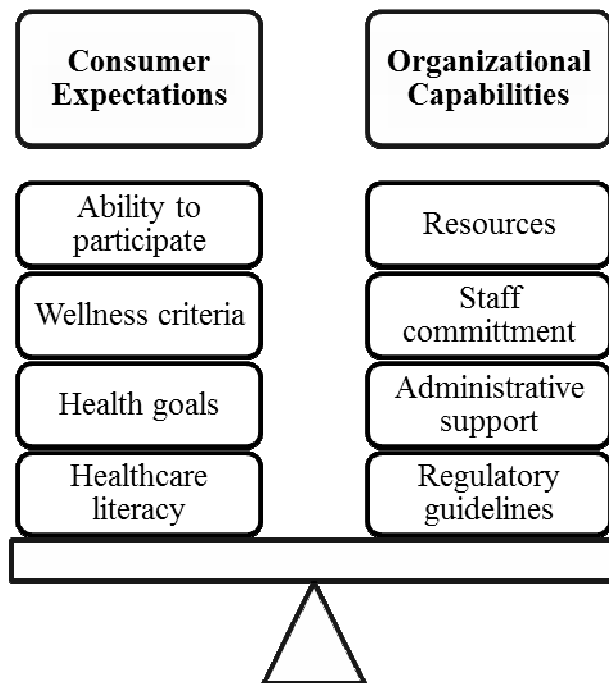


Figure 4. A balanced scorecard for implementing a change program in a LTC facility.

Adapted from “Applying quality management in healthcare” by D. L. Kelly. Copyright 2011, Health Administration Press.

Characteristics of the Organization

The organizational setting for this quality improvement endeavor was a community based, nonprofit long-term, and assisted living skilled nursing center and rehabilitation facility. Located in a southern Maryland suburb, this healthcare organization provides a variety of services for the elderly unable to independently manage their activities of daily living. The mission and vision of this long-term nursing and rehabilitative care organization is to provide aging adults with the highest quality of care delivered by employees that reflect the values of the organization which include “compassion, community, nurturing, respect, competency, and innovation” (CCRNC, n.d.).

Population

The staff nurses employed by this facility—a total of 66 licensed nurses (41 LPN and 25 RNs) participated in a one hour mandatory SBAR training program. The impact of the program was determined by comparing the overall number and types of resident transfer to hospital events before and after the implementation of the INTERACT™ SBAR communication tool.

The population sample used for this evaluation project consisted of the nursing home residents in this LTC facility and thus provided a convenience sample which does not meet the criteria for random sampling found in more rigorous research. Facility population characteristics average census, resident ages and gender were obtained from the monthly certification and survey provider enhanced reports (CASPER). According to internal documents, the resident population was essentially unchanged before and after

the implementation, with the average daily census in the facility of 155 to 165 residents. The overall resident population was comprised of 75% female residents, of which 33% were between 74 and 85 years of age, and 46% were 85 years and older. A 1% decrease was noted in residents aged 65-74 in 2014 when compared to those in the previous year (see Table 1).

Table 1

Resident population descriptive statistics obtained from CASPER reports Jan-April 2013-14.

Characteristics	January 1 st to December 31 st 2013	January 1 st to August 31 st 2014
Average census	155-165	155-165
Approximate Resident % population age (years)		
65-74	16%	15%
74-85	33%	33%
85+	46%	46%
Approximate resident population sex (percentage)		
Male	25%	25%
Female	75%	75%

Note. From *Certification and Survey Provider Enhanced Reports (CASPER)*: reports generated by the Centers for Medicare and Medicaid Services. Reprinted with permission (see Appendix C).

Protection of Participants

For this quality improvement program, reductions in the number of transfers in the resident population prior to and post implementation of the SBAR communication tool were used to determine the impact of the SBAR. Program evaluation data were obtained from medical record audits ensuring patient confidentiality in accordance with HIPPA regulation is maintained at all times. Moreover, adherence to the regulatory guidelines by using identifiers that ensure patient identification and information is not shared or compromised. Resident identifiers (initials only) were used during data collection and protected resident specific health information was not revealed in program evaluation outcome reports. This quality improvement project proposes minimal harm to the residents or nursing staff at CCRNC (Charles County Nursing and Rehabilitation Center), the practicum site. The Institutional Review Board granted approval for this project affirming that ethical standards were met, approval number 09-08-14-0059059 (see Appendix B).

The plan for this quality improvement program was reviewed and approved by the organization stakeholders including the CEO, medical director, CNO, and nurse managers (organizational stakeholders). From their review the organizational stakeholder team determined that the residents would not be exposed to any changes in their care that would provoke discomfort, physical or psychological harm. While none of program participants, including the residents, their families, CCRNC staff, and medical care providers, received monetary rewards or other gratuities, it is important to note that the

expectation was for the staff nurses to become proficient at using the SBAR communication tool, whether or not they agreed to participate in this study.

Data Collection

An effective quality improvement program provides healthcare organizations with a framework for evaluating system efficacy and often is the catalyst for evidence based practice research endeavors. The purpose for this quality initiative is to evaluate the impact the SBAR communication tool had on resident transfers, the overall number of transfers, types of transfers by clinical condition criteria, and those resulting in hospital admission.

For this project data were analyzed using *t*-Test to ascertain if differences existed between the resident transfer groups before after the implementation of the SBAR program. Information about residents transferred from the nursing home to acute care hospitals for treatment was obtained from the *Daily Resident Transfer Log* maintained by the CNO. Resident transfer event data were collected weekly and transferred to a Microsoft Excel (2010) spreadsheet for statistical analysis. All resident transfers were categorized and compared by overall number, characteristics of the resident condition at time of transfer, and by the number of residents hospitalized after transferring to the emergency department. These data were compared pre and post implementation of the SBAR program; pre SBAR: January 1st to December 31st 2013 and post SBAR: January 1st to August 31st2014. Additional information relating to resident population characteristics was obtained from CASPER reports, and CMS facility quality indicator reports.

The impact of the SBAR program was evaluated by comparing the overall number of resident transfer's pre and post implementation of the communication format and tool and along four clinical condition categories. Pre and post SBAR implementation prevalence data were analyzed using a *t*-Test to determine if a significant difference was noted in the two groups.

Data Analysis

All resident transfer to the hospital events were categorized into clinical categories adopted and modified from Polniaszek, Walsh, and Weiner (2011). These categories were: 1. Preventable conditions: medical conditions that may have been averted or corrected if nursing home staff intervened sooner such as infections (upper respiratory, and urinary tract), electrolyte imbalances, and coagulation disturbances also included in this category are transfers related to family or resident insistence to go to emergency department; 2. Discretionary conditions that could be effectively managed by the nurses practicing in a LTC facility such as pneumonia, congestive heart failure, asthma or sepsis; and 3. Futile care or end stage medical treatments that will neither improve nor change the quality of life or outcomes for the resident.

Because the data collected included all resident transfer to hospital events and was not specific for those identified to be unavoidable and necessary, a fourth clinical category, emergent conditions was added. Emergent transfers were defined as hospital transfer events deemed to be unavoidable such as changes in resident health status associated with a fall with traumatic injury, neurological changes indicative of stroke, bleeding disorders, respiratory distress/failure, and critical laboratory values (such as high

serum potassium levels) that according to CCRNC policy required the nurse to have the resident transferred to an acute care facility for evaluation. Residents sent to the hospital from secondary sites, such as the physician office or dialysis center were noted but not included in comparison data analysis (see Table 2).

Table 2

Resident hospital transfers events before and after implementation of the INTERACT™ SBAR program.

Condition Category	Transfers pre SBAR Jan-Dec 2013	Percentage of transfers pre SBAR	Transfers post SBAR Jan- Aug 2014	Percentage of transfers post SBAR
Preventable	39	21%	27	26%
Discretionary	57	30%	32	30%
Futile care	14	7%	1	1%
Emergent	80	42%	45	43%
Excluded	9		6	
Total	190		105	

Note. Clinical condition categories adapted from “Hospitalizations of nursing home residents: Background and options” by S. Poliniaszek, E. G. Walsh & J. M. Wiener, 2011. Retrieved, from <http://aspe.hhs.gov/daltcp/reports/2011/NHResHosp.pdf>

Walsh, Weiner, Haber, Bragg, Freiman, and Ouslander (2012) identified diagnostic conditions (pneumonia, congestive heart failure, urinary tract infections, dehydration, chronic obstructive pulmonary disease, and asthma) associated with potentially preventable hospital transfers. For this quality improvement program evaluation a modified version of these diagnostic groups was created. Resident transfer events were categorized by primary signs and symptoms associated with a specific body system prior to transfer including neurological, respiratory, cardiac, cardiovascular, GI (gastrointestinal), GU (genitourinary), diagnostic/lab/vital sign changes, and other emergent conditions such as falls with injury (see Table 3). This data provided additional information that could be used for creating educational programs to improve nurse knowledge and ability to detect and report changes in resident health status relating to chronic disease conditions.

Table 3

A comparison of resident hospital transfers by clinical symptoms/body system during January 1st to August 31st 2013 and January 1st to August 31st 2014.

Symptom/body system category	Transfers Jan-Aug 2013	Transfers Jan-Aug 2014
Neurologic	21	23
Respiratory	13	14
Cardiac	6	7
Gastrointestinal	7	8
Genitourinary	4	4
Abnormal lab/diagnostic results	17	20
Other (emergent)	27	32

Note. Clinical condition categories adapted from “Potentially avoidable hospitalizations of dually eligible Medicare and Medicaid beneficiaries from nursing facility and home and community based services” by E. G. Walsh, J. M. Weiner, S. Haber, A. Bragg, M. Freiman, and J. Ouslander, *Journal of American Geriatrics Society*, 60(5), 821-829, 2012

Poorly defined and overlapping resident symptoms can create challenges for clinicians working with the elderly to establish clear guidelines and definitions for what constitutes an unnecessary resident hospital transfer. Residents that were transferred to the hospital from secondary site such as dialysis were excluded from this data (see Table 4). This data offered valuable information about the types of medical conditions associated with resident transfers that resulted in a hospital admission. The resident transfer event data offers the administrative, nursing, and QAPI team valuable information for developing educational programs and policies for improving nursing staff ability to detect and report changes in resident medical conditions that could lead to unnecessary or avoidable hospitalizations. These nursing educational programs will offer the staff the opportunity to glean information about chronic illness and disease processes most prevalent in their resident population.

Table 4

Resident transfer vents resulting in hospital admissions

Total transfers	2013 yes admission	2013 no admission	2014 yes admission	2014 no admission
Year 2013 N = 190	N = 126	N = 64	N = 75	N = 32
Year 2014 N = 107				
January	22	9	7	7
February	15	6	4	2
March	6	1	9	6
April	5	7	8	2
May	9	5	14	3
June	10	6	13	5
July	6	1	11	3
August	12	4	9	4
September	12	7		
October	13	7		
November	6	5		
December	10	6		
Percentage of Total Transfers	66.3%	33.7%	70.1%	29.9%

Statistical Significance

Resident transfer events before and after the SBAR communication format was implemented were compared using a dependent t test to detect significant statistical differences among the two groups. The t test is used for comparing two groups on one measure or dependent variable to determine if differences exist (Polit & Beck, 2006; Terry, 2012). In research, the independent variable is identified as the variable that is observed or manipulated to determine the effect it has on another variable; the dependent variable also known as the criterion variable is the variable being measured (Fain, 2013, p. 116).

The independent variable was identified as the implementation of the SBAR communication tool and the dependent variable was identified as the number of resident hospital transfer events. The null hypothesis posits that there would be no significant differences between the two groups' pre and post SBAR. Our expectation or hypothesis contends that implementing the SBAR communication tool will have an impact on resident transfer events and result in statistically significant differences in the groups. While the differences, if statistically significant would indicate the SBAR did have an impact, this information would not make it possible to determine the direction or magnitude of the impact.

Summary of Findings

Data were collected and paired samples dependent t -test was conducted to compare the number of resident transfers before and after the implementation of a QAPI

program training the nursing staff to use the SBAR communication tool in this LTC facility. An IBM® SPSS program was used for data analysis (see Appendices D and E). Resident transfer event data were compared pre and post SBAR by overall number of resident transfers, transfers defined by the clinical condition categories emergent, preventable, discretionary and futile care, and transfer events that did or did not result in hospital admission (see Table 5).

Table 5

Summary of t-test statistics

Type of Transfer	Pre SBAR N=8 <i>Mean, SD</i>	Post SBAR N=8 <i>Mean, SD</i>	Paired Samples Test <i>M, SD, df, t-stat</i>	Significance 2-tailed ($p < 0.05$)
Overall	15.5, 7.837	13.125, 3.522	2.375, 9.038, (7), 0.604	NS
Preventable	3.250, 2.434	3.375, 1.846	-0.125, 3.720, (7), -0.095	NS
Discretionary	5.000, 2.828	4.000, 2.138	1.000, 4.472, (7), 0.632	NS
Emergent	6.250	5.625, 2.326	0.625, 2.924, (7), 0.604	NS
Futile Care	1.000	0.125, 0.353	0.875, 0.991, (7) 2.497	*0.041
Admitted	10.625, 5.705	9.375, 3.248	1.250, 7.741, (7), 0.457	NS
Not Admitted	4.875, 2.799	4.000, 1.851	0.875, 3.226, (7), 0.767	NS

*Indicates Significance ($p < 0.05$)

Summary of Table

There was no significant difference in the overall resident transfer groups pre SBAR ($M = .625, SD = 4.234$) and post SBAR ($M = 5.625, SD = 2.326$); $t(7) = 0.743, p = 0.482$. There was no significant difference in the Preventable resident transfer groups pre SBAR ($M = 3.250, SD = 2.434$) and post SBAR ($M = 3.375, SD = 1.846$); $t(7) = -0.095, p = 0.927$. There was no significant difference in the *discretionary care* resident transfer groups pre SBAR ($M = 5.000, SD = 2.828$) and post SBAR ($M = 4.000, SD = 2.138$); $t(7) = 0.632, p = 0.547$. There was no significant difference in the *emergent* resident transfer groups pre SBAR ($M = 6.250, SD = 4.234$) and post SBAR ($M = 5.625, SD = 2.326$); $t(7) = 0.604, p = 0.565$

Also, there was no significant difference in the *admitted to hospital* resident transfer groups pre SBAR ($M = 10.625, SD = 5.705$) and post SBAR ($M = 9.375, SD = 3.248$); $t(7) = 0.457, p = 0.662$.

There was no significant difference in the *not admitted to hospital* resident transfer groups pre SBAR ($M = 4.875, SD = 2.799$) and post SBAR ($M = 4.00, SD = 1.851$); $t(7) = 0.767, p = 0.468$. There was a significant difference in the *futile care* resident transfer groups pre SBAR ($M = 1.000, SD = 0.925$) and post SBAR ($M = 0.125, SD = 0.353$); $t(7) = 2.497, p = 0.041$.

Evaluating the impact of SBAR for preventing unnecessary and potentially preventable resident transfers by comparing the prevalence and types of resident transfer events pre and post SBAR implementation was the original intent of this project. Comparison of the resident transfer data overall, and in three of the four clinical condition categories did not provide evidence of a significant change pre and post implementation of the SBAR communication tool. However, there was a significant difference in the futile care clinical condition category suggesting that the tool may in fact have had an impact on reducing unnecessary resident transfers of residents with end stage conditions. The significant differences in this clinical care category could have been impacted by the single site and small population sample. However, a significant difference in the number of resident transfers in the futile care clinical condition category pre and post SBAR supports the premise that improving communication will improve healthcare delivery by aligning provider services with patient outcome expectations.

Although analysis of the resident transfers comparison data did not provide conclusive evidence of SBAR influence on resident transfers in three of the four clinical condition categories, the outcome data clearly demonstrates a need for additional study to measure the true impact of the SBAR in this LTC facility. Using a single-site and small population sample, and a poorly defined set of criteria for what constitutes an unnecessary or potentially avoidable resident hospital transfer, and overlapping of resident symptoms contributed to the challenges for determining the impact of the SBAR communication format in this LTC facility.

Future study is needed to investigate the variables revealed by this program, such as the timeliness of implementing the SBAR (at the moment of transfer or when symptoms first exhibited), the influence of staffing (days and shift times for resident transfers), care provider and nurse attitudes toward the usefulness of the SBAR format and their compliance with the policy change.

In conclusion, although the information derived from the evaluation of this quality improvement initiative did not provide conclusive evidence of the impact of the SBAR on resident transfer to hospital events the outcome data was important for identifying the need for further study and for establishing a foundation for adopting additional INTERACT™ resources in the future.

Project Evaluation Plan

Evaluating process change can be challenging particularly in healthcare settings with diverse workforce and work flows. The purpose for this DNP project was to evaluate the impact of a QAPI program implementing the INTERACT™ SBAR communication tool in a Maryland SNF, with the intent of reducing resident transfers to acute care hospitals. Resident transfer data pre and post implementation of the SBAR communication tool was analyzed using the *t*-test to determine if a significant differences were found in the number of resident transfers overall and by clinical care categories.

Although analysis of the data was inconclusive for establishing statistically significant evidence demonstrating a reduction in unnecessary resident transfers relating to the implementation of the INTERACT™ SBAR communication format, the data collected did provide valuable baseline information about resident transfer events in this

facility. This information is vital for determining which resident transfers to the hospital are actually avoidable and for developing future programs addressing this practice issue.

Summary

An effective quality improvement program provides healthcare organizations with a framework for evaluating system efficacy and is often the catalyst for evidence based practice research endeavors. Because nursing homes have such a diverse workforce it is essential to have effective communication tools and processes in place. The goal for this DNP project was to evaluate a QAPI program implementing SBAR in a LTC setting. The objective for the program was to reduce potentially unnecessary or avoidable resident transfers to acute care hospitals for treatment by improving communication of changes in resident medical conditions to healthcare providers. Clearly defined clinical practice guidelines supported by research evidence and quality assurance data help nurses identify problems, improve standard of care practices, and clinical outcomes (Fawcett & Garity, 2009). In addition to providing the QAPI team with insight and experience for implementing a successful and sustainable quality improvement program, this evaluation project also offered the organization valuable information about resident transfers. The nursing administration team can use this data for creating educational programs that will improve the care rendered by the nursing staff and ultimately the quality of life for the residents entrusted to their care.

Section 4: Findings, Discussion, and Implications

Summary of Findings

The purpose for this quality initiative was to evaluate the success and sustainability of a QAPI program implementing the INTERACT™ SBAR communication tool in a Maryland LTC facility, with the intent of improving patient care by reducing unnecessary or avoidable resident transfers to acute care hospitals. Resident hospital transfer events were compared to determine if significant differences existed between the overall number of transfers, clinical condition categories, and transfers resulting in hospital admission before and after the implementation of the SBAR communication tool. Although the primary objective for this DNP project was to evaluate the impact of a QAPI initiative implementing the SBAR communication tool for reducing acute care transfers of nursing home residents, the outcome information will also provide valuable information for developing future programs to improve interdisciplinary collaboration and organizational teamwork internally (within the organization) and externally (with other healthcare agencies).

Literature Discussion

In a 2010 report the Institute of Medicine (IOM) recommended “Nurses should be full partners with other healthcare professionals in redesigning healthcare in the United States” (p.1). However, overcoming barriers and resistance to change is a challenge for nurse leaders acting as champions of change. My review of the current literature supported the need for this project for evaluating a QAPI initiative implementing one of the INTERACT™ tools and strategies for reducing unnecessary resident transfers to

acute care hospitals. Current literature provided evidence supporting the use of a constructive communication format to improve nurse ability to observe, report, and intervene when there are changes in resident health status that may lead to unnecessary or avoidable hospital transfers (Lerner, 2010; Maslow & Ouslander, 2012; Ouslander et al., 2010). There was also research evidence indicating that certain types of chronic disease conditions such as diabetes, congestive heart failure, hypertension, and pneumonia could result in unnecessary or avoidable hospital transfers (Maslow & Ouslander, 2010; Polniaszek, Walsh, & Weiner, 2011). The literature supports the need for programs such as INTERACT™ shown to be effective for enabling LTC facilities to create QAPI initiatives to reduce unnecessary resident transfers (Ouslander & Berenson, 2011; Ouslander, Bonner, Herndon, & Shutes, 2014; Ouslander et al., 2010). The research evidence also supports the benefits of implementing tools and strategies for improving interdisciplinary communication using a constructive communication format such as SBAR to achieve this outcome (Leonard, Graham, & Bonacum, 2004; Lamb, Tappen, Diaz, Herndon, & Ouslander, 2011; Renz, Boltz, Wagner, Capezuti, & Lawrence, 2013; Tija, Mazor, Field, Meterko, Spenard, & Gurwitz, 2009).

In conclusion, my literature review supports the framework, design and necessity for this DNP project evaluating a QAPI program to reduce potentially avoidable or unnecessary resident transfer to hospital events by adopting the SBAR communication tool in this LTC facility.

Standards of Nursing Care Practices

Nurses at all practice levels must become champions of promoting professional excellence; embracing change, seeking new methods, knowledge and tools for improving patient outcomes and clinical practice standards. Improving communication is a practice issue impacting patient outcomes, health care delivery costs, and quality improvement outcomes. Because nursing homes and the acute care facilities often operate independently, having a different perspective for treatment and the care they provide, the information they offer to the alternative site may be lacking. According to Wang, et al. (2009) “Ten percent of nursing home residents are transported with any documentation and essential information is missing in the other ninety percent,” (p. 445). Creating a working alliance and adopting a structured communication format such as TJC (The Joint Commission) approved interdisciplinary communication tool will improve communication between providers and nurses working in skilled nursing facilities. Quality improvement initiatives and educational programs that enhance clinical decision choices and support critical thinking processes will improve nursing clinical performance and ultimately improve patient outcomes.

Quality of Care

Effective management of chronic disease is essential for maintaining wellness in the elderly who often describe optimal health outcomes in terms of reduced disability and suffering rather than longevity and mortality. Decisions to send an elderly resident to the hospital for treatment are impacted by the perceptions and expectations of the healthcare providers and consumers about what constitutes effective medical care. The

consequences of consumer misperceptions and fragmented healthcare services is a waste of millions of dollars annually, often providing expensive and painful medical treatments that do not change clinical outcomes (Crisp, 2007; Ridenour & Trautman, 2009).

Prevention and risk benefit analysis are important aspects of determining which and to what extent therapeutic interventions can best serve the compromised elderly nursing home resident. Optimal care outcomes can be achieved when care providers and consumers have clearly aligned goals and objectives for managing health and promoting wellness. Balancing or synergizing patient needs with provider ability will improve the quality of care and promote nursing practice excellence in the LTC setting. Aligning resources with objectives is a key component of creating successful sustainable organizational change programs. Creating a cost effective program for improving interdisciplinary communication will improve professional competence, reduce overlapping of healthcare services and the quality of care delivered to elderly nursing home residents. Advancing nursing practice excellence is not only essential for creating optimal healing environments in all healthcare settings; but paramount for nursing professionals working with vulnerable populations such as the frail elderly.

Social Change

Maintaining the status quo is no longer an option for professional nurses who must demonstrate their value in a cost-effective quality healthcare system. Current and future demands on our healthcare system make it imperative for nurses to contribute to change processes that enable them to create synergistic healing environments, matching client needs with cost effective services. The DNP nurse leader has the privilege and

responsibility for helping nurses meet practice challenges generated by diverse patient populations, ever-changing technology, and limited resources. Elderly patients who are compromised with complex chronic conditions that have led to irreversible medical pathology require vigilance on the part of the nursing staff and healthcare providers to ensure their physical, functional, emotional, and spiritual needs are met. This project was valuable for evaluating communication among care providers in a LTC setting, establishing baseline information and identifying the need for future projects.

Project Strengths and Limitations

Strengths

The goal of this quality improvement project was to evaluate the impact of a QAPI program implementing the INTERACT™ SBAR communication tool had on resident transfers to acute care hospitals in a mid-size nursing home located in Southern Maryland. Although the data analysis did not provide statistically significant evidence of a reduction in the number of resident transfers after the implementation of the SBAR communication tool the endeavor provided valuable baseline information and a starting point for future projects. According to Albanese et al. (2010), “Data become more relevant when nurse realizes that improvements in one quality indicator results in subsequent positive changes in another and sometimes creates a domino effect” (p.240). The data obtained from this evaluation project enables the stakeholders to stay true to the original intent of this QAPI program by providing valuable information about the prevalence and types of medical conditions that led to resident transfers to the hospital.

With this information, the nursing administrative team at CCRNC will have an important resource for developing educational programs that will enable the nursing staff to improve their assessment and critical thinking skills and ultimately improve the quality of resident care.

Limitations

There were several limitations of this evaluation study to identify prior to summarizing the outcomes.

7. Poorly defined criteria for identifying unnecessary or avoidable resident transfers.
8. Variables in nursing scope of practice and education levels.
9. Incompatibility of facility health information technology and the electronic version of the INTERACT™ SBAR documentation form.
10. Transfer data were collected from a single site convenience population sample.
11. Length of time for pre and post SBAR resident transfer comparisons was unequal.
12. Program for reducing unnecessary transfers was limited to adopting the INTERACT™ SBAR communication form only.
13. Small sample size

Given current economic and personnel resource limitations, creating meaningful programs in healthcare can be a challenging task. Differences in how healthcare needs are perceived and prioritized and the availability and allocation of resources can significantly impact the success and sustainability of QAPI programs. Adopting only one of the multiple tools and elements of the INTERACT™ program is a limitation for this project that may have significant consequences. As Ouslander et al. (2014) has suggested,

“Adopting only part of the INTERACT™ overlooks the original model and may be cause for concern” (p. 169). An additional challenge and significant limitation to the success and sustainability of this project were challenges created by incompatibility and accessibility of the INTERACT™ electronic resources and the facility EH. This incompatibility resulted in the nurses having to double document changes in resident health status; the SBAR in paper format and change of status assessment in the EHR.

Modern healthcare systems seeking ways to provide consumers with the highest standard of care at the lowest cost often use comparable quality indicators and benchmarks for evaluation of their processes. Many LTC rely on the efforts of quality assurance performance programs (QAPI) for evaluating processes and identifying real and potential problems within the organization. Quality assurance projects can offer valuable information relating to nursing practices, but because quality improvement projects often do not meet the same rigorous standards as traditional empirical research the evidence may go unpublished. According to Davidoff et al. (2008), “Failure to publish is a potentially serious barrier to the development of improvement in health and medical care and improvement science generally, since public sharing of concepts methods and findings is essential to the progress of all scientific work both theoretical and applied” (p. i3).

Although the outcome data did not provide statistical evidence of the impact of the SBAR and the conclusions drawn from this evaluation project have left the organization with more questions than answers, both should be viewed as strengths not weaknesses of the project. The outcomes while inconclusive open multiple windows of

opportunity for developing future projects and programs that will improve nursing education and ultimately resident care.

Analysis of Self

As a Scholar

Nurses at all practice levels must become champions of promoting professional excellence; embracing change, seeking new methods, knowledge and tools for improving patient outcomes and clinical practice standards. As Whitehead (2003) asserted, “Nursing is a potentially powerful collective force for positive change when acting as advocates for those lacking organizational power (p. 670). Healthcare professionals often find it difficult to find the time and resources for creating and implementing change programs.

Successful leaders inspire, motivate and empower their followers by ensuring resource availability, achievement recognition, and effective communication of organizational vision, goals and performance expectations (Grossman & Valiga, 2005). Two goals for my DNP experience were gleaned knowledge and experience for implementing education programs that address the diverse learning styles and educational levels found in LTC nursing populations and disseminating information obtained from this quality improvement program by sharing this information at the Southern Maryland Coalition for Reducing Hospital Readmissions meeting. Sharing the project outcomes with other healthcare providers offers an opportunity to learn from other professionals while demonstrating a scholarly commitment to nursing education and practice excellence.

As a Practitioner

For the Doctor of Nursing Practice (DNP) graduate there is an emphasis on developing skills for assessing and evaluating care delivery activities and translating this information into standards of practice that enable nurses to ensure patient safety and promote optimal healthcare quality (AACN, 2006). This DNP project provided the planner and participants the opportunity to learn the importance of creating and implementing programs that offer evidence of improved practice.

Educators working in all clinical settings must be flexible and able to meet the learning needs of a diverse group. For the LTC nurse educator this is particularly important as he or she is often providing training and establishing competency for nurses with diverse educational and experience levels. As educators in the LTC setting, it is also important to foster and promote the importance of intra-disciplinary collaboration and practice founded in scientific evidence. The DNP educator has the scientific knowledge along with practical clinical experience that Waxman and Maxworthy (2010) described as “the best combination for bridging the gap between evidence and implementation” (p. 33). Providing nurses working in SNF with educational programs that can increase knowledge and improve critical thinking will improve resident outcomes and nursing practice and at licensure levels.

Recognizing leadership strengths and weaknesses are important qualities for the novice DNP. Two leadership characteristics consistent with my core values are respectfulness and resourcefulness. Respectfulness is an important attribute for leaders who must create a cohesive visionary plan for organizational change while promoting the

individuality and autonomy of each member of the team. To overcome barriers and achieve organizational goals there must be a mutual respect and appreciation for all members of the team and assurance that each member is valued for their contribution to the collaborative process (Ash & Miller, 2011).

Resourcefulness is another important skill for the effective nurse leader to cultivate. Although many dedicated professional nurses have embedded in their nature, a passion and inner drive to provide the very best services to anyone entrusted to their care, they often lack the leadership and support for achieving professional goals. Nurses working at the bedside often find themselves with minimal resources available to them for accomplishing overwhelming tasks.

It is essential for the DNP nurse to have the ability to recognize the need for practice change and possess leadership qualities for creating an atmosphere of motivation and inspiration that enable professional nurses to see their visions for practice excellence come to fruition. Champions for change must be creative committed leaders willing and able to use a variety of tools to inspire and motivate others to spend not only money but other resources such as their time and expertise.

As a Project Developer

This project has offered me the opportunity to learn and experience the challenges and rewards of creating positive change programs in healthcare. I have learned the value of planning and preparation and how essential traits such as flexibility and commitment are for achieving goals and objectives. Healthcare professionals and workers are often reluctant or willing to participate in change programs. For the project to be successful it

was essential to remove barriers such as cost of supplies, availability of environmental resources (space), time, and staff availability and to promote commitment by allowing participant feedback about the program.

Personal and professional reflection can offer valuable information to a project developer. During this experience I learned the value of honest feedback and effective evaluation. While it is difficult to accept negative feedback, honest reflection offers the DNP project planner opportunities for making changes and creating additional strategies that will ensure the success and sustainability of an organizational change program, and also generate professional growth.

Summary and Conclusion

The objectives for this DNP project were to evaluate a QAPI initiative implementing the INTERACT™ SBAR communication format with the intent of reducing unnecessary or avoidable resident transfers to acute care facilities for treatment. Although the data analysis did not conclusively demonstrate a relationship between the SBAR and a reduction in the overall numbers of residents there is evidence that additional study is necessary to determine the extent of the impact this communication tool has on interdisciplinary communication. The results of this endeavor clearly indicate a need for developing future projects measuring the impact of SBAR exploring variables such as the nursing licensure, education and experience, incidence of resident transfers by days and shift times, physician, family and staff awareness of facility capabilities.

The outcome of this project was important because it provided the facility with valuable information and experience they can use for developing future QAPI programs.

The information derived in this evaluation endeavor provides baseline data and a framework for future projects exploring the value of adopting additional INTERACT™ tools and strategies for reducing unnecessary resident transfers. This study also opens the door for developing nursing education programs that will enable them to improve their ability for detecting and communicating changes in resident conditions relating to chronic disease.

Advancing nursing practice excellence is not only essential for creating optimal healing environments in all healthcare settings; but paramount for nursing professionals working with vulnerable populations such as the frail elderly. Nurses at all practice levels must become champions of promoting professional excellence; embracing change, seeking new methods, knowledge and tools for improving patient outcomes and clinical practice standards. Quality improvement initiatives and educational programs that enhance clinical decision choices and support critical thinking processes will improve nursing clinical performance and ultimately improve patient outcomes.

Section 5: The Scholarly Product

Project Summary

The goal for this project was to evaluate the impact of a quality assurance performance improvement program implementing the INTERACT™ SBAR communication format as evidenced by a reduction in unnecessary resident transfers to acute care hospital for treatment. Lack of effective and timely reporting of changes in resident status can lead to unnecessary transfers and overlapping of services when a nursing home resident is sent the hospital for treatment that could be delivered in the nursing home. SBAR is a structured communication format shown to improve interdisciplinary communication, promote teamwork, and better patient outcomes in healthcare settings (DeMeester, Verspuy, Monsieurs, & VanBogaert, 2013; IHI, 2014; Whitson, Hastings, Lekan, Sloane, White & McConnell, 2008). Providing LTC nursing personnel with the tools and training for reporting changes in resident healthcare status to providers more efficiently and effectively does improve nurse-provider communication which ultimately can have a positive impact on the quality of healthcare services delivered in long term care settings.

Although the project did not provide statistical evidence demonstrating a reduction in resident transfers the data did show significant differences in the pre-post SBAR transfers in two of the four clinical condition categories used for classifying resident transfer events. Because the definition of an unnecessary or avoidable transfer was not well defined for this project all resident transfers were used to determine the impact of the SBAR communication tool. While the project outcome data analysis did not

conclusively establish a significant change in the number of unnecessary transfers it did provide valuable information relating to medical conditions and clinical condition categories of the transfers. The data collected will provide baseline information that can be used for establishing future programs to improve quality of care by implementing additional INTERACT™ tools and strategies.

Project Evaluation Report

Providing quality health care to a frail elderly population with complex medical needs can be very challenging, particularly for nurses lacking the skills and knowledge to act and think critically. This project was successful for providing the QAPI team at this LTC facility valuable information that can be used for developing and implementing future quality improvement programs. The outcome data while inconclusive for demonstrating a significant impact on the number of resident transfers resulting from the implementation of a QAPI program implementing the SBAR does provide the QAPI team with baseline statistics that can be used for future quality improvement endeavors.

The data collected from this quality improvement program evaluation offers valuable information relating to resident hospital transfers in this LTC facility, such as symptoms exhibited prior to transfer, medical outcomes, incidence and prevalence, month, day and time of transfer. Although the data analysis was unable to demonstrate a significant influence of the SBAR communication tool and resident transfers in this LTC facility, the project was successful for providing the QAPI team with baseline data that can be used for developing and implementing future quality improvement programs. In addition to providing a framework for future quality improvement programs the

outcomes of the project identified educational needs of the nursing staff and stimulated staff and stakeholder interest in participating in projects for improving interdisciplinary communication and ultimately quality of care.

Having a strong commitment to nursing excellence and effective interdisciplinary communication provides the nursing staff and other stakeholders in this LTC facility with the ability to fulfill the goals and missions of the organization; providing the highest quality of services possible to the elderly residents entrusted to their care.

References

- Albanese, M. P., Evans, D. A., Schantz, C. A., Bowen, M., Moffa, J. S., Piesieski, P., & Polomano, R. C. (2010). Engaging clinical nurses in quality and performance improvement activities. *Nursing Administration Quarterly, 34*(3), 226-245. doi:10.1097/NA.0b013e3181e702ca
- American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Retrieved from <http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf>
- American Critical Care Association. (2004). Synergy model of care. Retrieved, from <http://www.aacn.org/wd/certifications/content/synmodel.pcms?menu=#Basic>
- Adams, J. M., & Osborne-McKenszie, T. (2012). Advancing the evidence base for a standardized provider handover structure: Using staff nurse descriptions of information needed to deliver competent care. *The Journal of Continuing Education in Nursing, 43* (6), 261-266. doi:10.3928/00220124-20120215-88
- Agency for Healthcare Research and Quality (n.d.). Retrieved, from <http://www.ahrq.gov/>
- Berkowitz, R. E., Jones, R. N., Rieder, R., Bryan, M., Schreiber, R., Verney, S., & Paasch-Orlow, M. K. (2011). Improving disposition outcomes for patients in a geriatric skilled nursing facility. *Journal of American Geriatrics Society (JAGS), 59*(6), 1130-1136. doi:10.1111/j.1532-5415.2011.03417.x

- Boaro, N., Fancott, C., Baker, R., Velji, K. & Andreoli, A. (2010). Using SBAR to improve communication in interprofessional teams. *Journal of Interprofessional Care*, 24(1), 111-114. doi:10.3109/13561820902881601.
- Buchanan, J. L., Murkofsky, R. L., O'Malley, A. J., Karon, S. L., Zimmerman, D., Caudry, D. J., & Macantonio, E. R., (2006), Nursing home capabilities and decisions to hospitalize: A survey of medical directors and directors of nursing. *Journal of Geriatrics Society, (JAGS)*, 54(3), 458-465. doi:10.1111/j.1532-5415.2005.00620x
- Centers for Medicare and Medicaid Services, (2013). *Readmissions reduction program*. Retrieved from <http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program.html>
- Centers for Medicare and Medicaid Services, (2012). MLN Matters. Retrieved, from <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/SE0745.pdf>
- Centers for Medicare and Medicaid Services (2013). Nursing home compare. Retrieved, from <http://www.medicare.gov/nursinghomecompare/search.html>
- Centers for Medicare and Medicaid Services (2013). QAPI description and background. Retrieved, from <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/qapidefinition.html>
- Charles County Nursing and Rehabilitation Center, (n.d.). Home page Retrieved, from <http://www.ccnrc.org/index.html>

- Clark, S. P., & Donaldson, N.E. (2008). *Patient safety and quality: An evidence-based handbook for nurses*. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK2676/>
- Cohen, S.S., Crego, N., Cuming, R.G., & Smyth, M. (2002). The Synergy Model and the role of clinical nurse specialist in a multihospital system. *American Journal of Critical Care, 11*(5), 436-445.
- Crisp, D. H. (2007). Healthy older adult's execution of advanced directives: A Qualitative study of decision-making. *Journal of Nursing Law, 11*(4), 180-190.
- DeMeester, K., Verspuy, M. Monsieurs, K. G., & VanBogaert, P. (2013). SBAR improves nurse-physician communication and reduces unexpected death: a pre and post intervention study. *Resuscitation, 84*(2013), 1192-1196.
doi:10.1016/j.resuscitation.2013.03.016
- Fain, J. A. (2013). *Reading, understanding, and applying nursing research* (4th ed.). Philadelphia, PA: F. A. Davis Company.
- Fassett, W. E. (2011). Key performance outcomes of patient safety curricula: Root cause analysis, failure mode, and effects analysis, and structured communication skills. *American Journal of Pharmaceutical Education, 1, 75*(8), 164.
doi:10.5688/ajpe758164
- Fawcett, J., & Garity, J. (2009). Evaluation of Middle-range theories. *Evaluating research for evidence-based nursing practice*. Philadelphia, PA: F.A. Davis Company.

- Handler, S. M, Sharkey, S. S., Hudak, S., & Ouslander, J.G. (2011). Incorporating INTERACT II clinical decision support tools into nursing home health information technology. *Annals of Long-Term Care: the official journal of the American Medical Directors Association*, 19(11), 23-26.
- Hardin, S. & Hussy, L. (2003). AACN Synergy model for care: Case study of patient with CHF. *Critical Care Nurse*, 23(1), 73-76.
- Havins, D. S., Vasey, J., Gittell, J.H., & Lin, W. T. (2010). Relational coordination among nurses and other providers: Impact of the quality of patient care. *Journal of Nursing Management*, 18, 926-937. doi:10.1111/j.1365-2834.2010.01138.x
- Hill, N. L., Kolanowski, A. M., Milone-Nuzzo, P., & Yevchak, A., (2011). Culture change models and resident health outcomes in long-term care. *Journal of Nursing Scholarship*, 43(1), 30-40. doi: 1011/j.1547-5069.2010.01379.x
- Hodges, B.C. & Videto, D. M. (2011). *Assessment and planning in health programs* (6th ed.). Sudbury, MA: Jones & Bartlett Learning.
- IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.
- Institute for Healthcare Improvement [IHI] (January 30, 2014). WIHI: SBAR structured communication and psychological safety in health care. Speakers: Leonard, M., Lyndon, A., Morgan, J. & Stone, A. Retrieved, from <http://www.ihi.org/resources/Pages/AudioandVideo/WIHISBARStructuredCommunicationandPsychologicalSafetyinHealthCare.aspx>

- INTERACT™ (2011). Interventions for reducing acute care transfers. Retrieved, from <http://interact2.net/index.aspx>
- Jablonski, R. A., Utz, S. W., Steeves, R., & Gray, P., (2007). Decisions about transfer from nursing home to emergency department. *Journal of Nursing Scholarship*, 39(3), 266-272. doi:10.1111/j.1547-5069.2007.00179.x
- Kaplow, R. (2002). The Synergy Model in practice: Applying the Synergy Model to nursing education. *Critical Care Nurse*, 22(3), 77-82.
- Kelly, D. L. (2011). *Applying quality management in healthcare: A Systems approach*. (3rd ed.). Health Administration Press; Foundation of the American College of Healthcare Executives, Chicago, IL.
- Kettner, P. M., Moroney, R. M. & Martin, L. L. (2013). *Designing and managing programs: An effectiveness-based approach* (4th ed.), Thousand Oaks, CA: Sage Publications, Inc.
- Konestzka, R. T., Spector, W. & Limcango, M.R., (2008). Reducing hospitalizations from long-term care settings. *Medical Care Research and Review*, 65(1), 40-66. doi:10.1177/1077558707307569
- Lamb, G., Tappen, R., Diaz, S., Herndon, L. & Ouslander, J.G. (2011). Avoidability of hospital transfers of nursing home residents: Perspectives of frontline staff. *Journal of the American Geriatrics Society*, 59(9), 1665-1672. doi: 10.1111/j.1532-5475.2011.03556.x

- Leonard, M. Graham, S. & Bonacum, D. (2004) The Human factor: The Critical importance of effective teamwork and communication in providing safe care. *Quality and Safety in Health Care*, 13(1), 85-90. doi: 10.1136/qshc.2004.010033
- Lerner, N. B. (2013). The relationship between nursing staff levels, skill mix and deficiencies in Maryland nursing homes. *The Health Care Manager*, 32(2), 123-128.
- Maslow, K. & Ouslander, J. G. (2012). Measurement of potentially preventable hospitalizations. *Long-term Quality Alliance, White Paper*. Retrieved, from http://www.interact2.net/docs/publications/LTQA%20PreventableHospitalizations_021512_2.pdf
- McCluskey, A. & Middleton, S. (2010). Delivering an evidence-based outdoor journey intervention to people with stroke: Barriers and enablers experienced by community rehabilitation teams. *BMC Health Services Research* 2010, 10:18. Retrieved, from <http://www.biomedcentral.com/1472-6963/10/18>
- McEwen, M. & Wills, E.M., (2011). *Theoretical basis for nursing* (3rd Ed.). Phila, PA., Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Melnyk, B. & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing & healthcare: A guide to best practice* (2nd ed.). Phila, PA., Wolters Kluwer: Lippincott, Williams & Wilkins.
- Montoya, A. & Mody, L. (2011). Common infections in nursing homes: a Review of current issues and challenges. *Aging Health*, 7(6), 889-899. doi:10.2217/ahe.11.80

- Mor, V., Intrator, O., Feng, Z. & Grabowski, D. C. (2010). The revolving door of rehospitalization from skilled nursing facilities. *Health Affairs*, 29(1), 57-64. doi: 10.1377/hlthaff.2009.0629
- Mueller, C., Anderson, R.A., McConnell, E.S., and Corazzini, K. (2012). Licensed nurse responsibilities in nursing homes: A Scope-of-practice issue. *Journal of Nursing Regulation*, 3(1), 13-30.
- Murphy, N., Canales, M. K., Norton, Sl. A. & DeFilippis, J. (2005). Striving for congruence: The Interconnection between values, practice, and political action. *Policy, politics & nursing practice*. 6(1), 20-29. doi:10.1177/1527154404272145.
- Narayan, M. C. (2013). Using SBAR communication in efforts to prevent patient rehospitalizations. *Home Healthcare Nurse*, 31(9), 1-7.
doi:10.1097/NHH.0b013e3182a87711
- Nash, D. B., Reifsnyder, J., Fabius, R. J. & Pracilio, V. P. (2011). *Population health: creating a culture of wellness*. Sudbury, MA: Jones & Bartlett, LLC.
- O'Malley, D. J. & Grabowski, D. C., Caudry, A. J. (2011). Predictors of nursing home residents' time to hospitalization. *Health research and educational trust*, 46:1, Part 1(February, 2011). doi:10.1111/j.145-6773.2010.01170.x
- Ouslander, J. G. & Berenson, R.A. (2011). Reducing unnecessary hospitalizations of nursing home residents. *New England Journal of Medicine*. 365(13), 1165-1167.
- Ouslander, J. G., Bonner, A., Herndon, L. & Shutes, J. (2014). The Interventions to reduce acute care transfers (INTERACT) quality improvement program: An overview for medical directors and primary care clinicians in long term care.

- JAMDA (Journal of the American Medical Directors Association)*, 15(2014) 162-170. Retrieved, from <http://dx.doi.org/10.1016/j.jamda.2013.12.005>
- Ouslander, J. G., Lamb, G., Perloe, M. Givens, J.H., Kluge, L, Rutland, T., Atherly, A., & Saliha, D. (2010). Potentially avoidable hospitalizations of nursing home residents; Frequency, causes, and costs. *Journal of American Geriatrics Society* 58:40, 627-635. doi:10.1111/j.1532-5415.2010.02768.x
- Ouslander, J.G., Lamb, G., Tappen, R., Herndon, L., Diaz, S., Roos, B.A., Grabowski, D.C., & Bonner, A., (2011). Interventions to reduce hospitalizations from nursing homes: Evaluation of the INTERACT II™ collaborative quality improvement project. *Journal of American Geriatrics Society*, 59:745-753. doi:10.1111/j.1532-5415.2011.03333.x
- Ouslander, J. G., Perloe, M., Givens, J.H., Kluge, L., Rutland, T., & Lamb, G. (2009). Reducing potentially avoidable hospitalizations of nursing home residents: Results of a pilot quality improvement project. *Journal of Medical Directors Association (JAMDA)*, 10: 644-652. doi:10.1016/j.jamda.2009.07.001
- Polit, D. F. & Beck, C. T. (2006). *Essentials of nursing research: Methods, appraisal and utilization*, (6th ed.) Phila, PA., Lippincott Williams & Wilkins.
- Polniaszek, S., Walsh, E. G., & Wiener, J.M. (2011). Hospitalizations of nursing home residents: Background and options. Retrieved, from <http://aspe.hhs.gov/daltcp/reports/2011/NHResHosp.pdf>

- Reifsnyder, J. & Yeo, T.P. (2011). Continuity of care. In Nash, Reifsnyder, Fabius, & Pracilio (2011). *Population health: Creating a culture of wellness*. Sudbury, MA., Jones & Bartlett, LL.
- Renz, S. M., Boltz, M. P., Wagner, L. M., Capezuti, E. A., & Lawrence, T. E. (2013). Examining the feasibility and utility of an SBAR protocol in long-term care. *Geriatric Nursing*,(2013), 1-7. doi:10.1016/j.gerinurse.2013.04.010
- Ridenour, N. & Trautman, D. (2009). A Primer for nurses on advancing health reform policy. *Journal of Professional Nursing*, 25(6), 358-362.
doi:10.1016/j.profnurs.2009.10.003
- Seblega, B.K., Zhang, N.J., Breen, G.M., Paek, S.C., & Wan, T.T.H. (2010). Changes in nursing home staffing levels, 1997 to 2007. *Medical Care Research and Review*, 67(2), 232-246. doi:10.1177//1077558709342253
- Shannon, D. (2012). Effective physician-to-physician communication: An essential ingredient for care coordination. *Physician Executive Journal*, January-February/2012. Retrieved, from
<http://www.perfectserve.com/connect/sites/default/files/white-paper-pdfs/acpe-physiciancommunication.pdf>
- Shojania, K.G. & Grimshaw, J.M. (2005). Evidenced based Quality improvement: the state of the science. *Health Affairs*. 25(1), 138-150. doi:10.1377/htthaff.24.1.138
- Sirota, T. (2007). Nurse/physician relationships: Improving or not? *Nursing 2007*, 37(1), 52-56.

- Spilsbury, K. Hewitt, C. Stirk, L. Bowman, C. (2011). The relationship between nurse staffing and quality of care in nursing homes: a systematic review. *International Journal of Nursing Studies*, 48, 732-750. doi:10.1016/j.ijnurstu.2011.02.014
- Terrell, K. M., Hustey, F. M., Hwang, U., Gerson. L. W., Wenger, N. S. & Miller, D. K. (2009). Quality indicators for geriatric emergency care. *Society for Academic Emergency Medicine*, 16(5), 441-449. doi:10.1111/j.1553-2712.2009.00382.x
- Terry, A. J. (2012). *Clinical Research for the Doctor of Nursing Practice*. Sudbury, MA, Jones & Bartlett Learning.
- Thomas, C.M., Bertram, E., & Johnson, D. (2009). The SBAR communication technique: Teaching nursing students professional communication skills. *Nurse Educator*, 34(4), 176-180. doi:10.1097/NNE.0b013e3181aaba54
- Tjia, J., Mazor, K.M., Field, T., Meterko, V., Spenard, A. & Gurwitz, J. H., (2009). Nurse-physician communication in the long-term care setting: Perceived barriers and impact on patient safety. *Journal of Patient Safety*, 5(3), 145-152. doi:10.1097/PTS.0b013e3181b53f9b
- Toles, M., Young, H.M., & Ouslander, J. (2013). Improving care transitions in nursing homes. *Journal of the American Society on Aging*, 36(4), 78-85.
- The Joint Commission, (2014). About the Joint Commission. Retrieved, from http://www.jointcommission.org/about_us/about_the_joint_commission_main.asp
- x
- The Joint Commission, (2013). Sentinel event data: Root causes by event type 2004- June 2013. Retrieved, from

http://www.jointcommission.org/assets/1/18/Root_Causes_by_Event_Type_2004-2Q2013.pdf

United States Census Bureau. (2012). U.S. Census Bureau statistical abstract: Nursing home beds, residents, and occupancy by state 2009. Retrieved, from <http://www.census.gov/compendia/statab/2012/tables/12s0194.pdf>

U.S. Department of Health and Human Services, (2010). *Health People 2020*. Office of Disease Prevention and Health Promotion. Retrieved from www.healthpeople.gov.

Walsh, E. G., Wiener, J. M., Haber, S., Bragg, A., Freiman, M. & Ouslander, J. (2012). Potentially avoidable hospitalizations of dually eligible Medicare and Medicaid beneficiaries from nursing facility and home- and community-based services waiver programs. *Journal of American Geriatrics Society*, 60(5), 821-829. doi:10.1111/j.1532-5415.2012.03920x

Waxman, K. T. & Maxworthy, J. (2010). The doctorate of nursing practice degree and the nurse executive: The perfect combination. *Nurse Leader*, 8(2), 31-33. doi:10.1016/j.mnl.2010.01.011

Whitson, H.E., Hastings, S.N., Lekan, D.A., Sloane, R., White, H.K. & McConnell, E.S., (2008). A Quality improvement program to enhance after-hours telephone communication between nurses and physicians in a long-term care facility. *Journal of American Geriatrics Society*, 56(6), 1080-1086. doi:10.1111/j.1532-5415.2008.01714.x

World Health Organization [WHO] (2013). Definition of an older or elderly person.

Retrieved, from

<http://www.who.int/healthinfo/survey/ageingdefnolder/en/index.html>

Appendix A: Permission to reprint INTERACT™SBAR Communication Tool

From: Joseph Ouslander
Date: Fri, Mar 28, 2014 at 3:09 PM
Subject: RE: Permission to use SBAR
To: Denise Jarboe

Of course you can put a copy in your proposal and final paper. The only real restrictions on use are for commercial purposes or incorporation into software.

Good luck on your project.

Joseph G. Ouslander, M.D.
Professor and Senior Associate Dean for Geriatric Programs
Interim Chair, Department of Integrated Medical Sciences
Charles E. Schmidt College of Medicine
Professor (Courtesy), Christine E. Lynn College of Nursing
Florida Atlantic University

Executive Editor, Journal of the American Geriatrics Society

Appendix B: Institutional Review Board Confirmation Number

The Confirmation of Ethical Standards (CES) has an IRB record number of 09-08-14-0059059 for this DNP project.

Appendix C: Permission to Do Research

July 24, 2014

Dear Denise Eileen Jarboe,

Based on my review of your research proposal, I give permission for you to conduct the study entitled “Evaluating a Quality Improvement Initiative to Reduce Preventable Hospital Transfers of Nursing Home Residents” within the Nursing and Rehabilitation Center. As part of this study, I authorize you to collect facility characteristics and resident transfer information data and disseminate results in a written DNP capstone project paper. Understanding that the identity and personal medical information of the residents will be protected at all times.

We understand that our organization’s responsibilities include: providing access to facility characteristics (resident population) information found in MDS (Minimum Data Set), CASPER (Certification and Survey Provider Enhanced Reports) and resident hospital transfer information during the period January 1, 2012 to June 30, 2014. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization’s policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student’s supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

Mary Teresa Robinson, RN, MSN

Appendix D: IBM®SPSS T-Test Data Analysis Summary

T-Test**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Emergent Pre	6.2500	8	4.23421	1.49702
	Emergent Post	5.6250	8	2.32609	.82240
Pair 2	Preventable Pre	3.2500	8	2.43487	.86086
	Preventable Post	3.3750	8	1.84681	.65295
Pair 3	Discretionary Pre	5.0000	8	2.82843	1.00000
	Discretionary Post	4.0000	8	2.13809	.75593
Pair 4	Futile Pre	1.0000	8	.92582	.32733
	Futile Post	.1250	8	.35355	.12500
Pair 5	Total Pre	15.5000	8	7.83764	2.77102
	Total Post	13.1250	8	3.52288	1.24553
Pair 6	Admit Pre	10.6250	8	5.70557	2.01722
	Admit Post	9.3750	8	3.24863	1.14856
Pair 7	No Admit Pre	4.8750	8	2.79987	.98990
	No Admit Post	4.0000	8	1.85164	.65465

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Emergent Pre & Emergent Post	8	.751	.032
	Preventable Pre & Preventable Post	8	-.500	.207
Pair 3	Discretionary Pre & Discretionary Post	8	-.614	.105
	Futile Pre & Futile Post	8	.000	1.000
Pair 5	Total Pre & Total Post	8	-.142	.737
Pair 6	Admit Pre & Admit Post	8	-.454	.259
Pair 7	No Admit Pre & No Admit Post	8	.083	.846

Appendix E: IBM®SPSS T-Test data analysis summary

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Emergent Pre - Emergent Post	.62500	2.92465	1.03402	-1.82007	3.07007	.604	7	.565
Pair 2	Preventable Pre - Preventable Post	-.12500	3.72012	1.31526	-3.23510	2.98510	-.095	7	.927
Pair 3	Discretionary Pre - Discretionary Post	1.00000	4.47214	1.58114	-2.73880	4.73880	.632	7	.547
Pair 4	Futile Pre - Futile Post	.87500	.99103	.35038	.04648	1.70352	2.497	7	.041
Pair 5	Total Pre - Total Post	2.37500	9.03861	3.19563	-5.18147	9.93147	.743	7	.482
Pair 6	Admit Pre - Admit Post	1.25000	7.74135	2.73698	-5.22193	7.72193	.457	7	.662
Pair 7	No Admit Pre - No Admit Post	.87500	3.22656	1.14076	-1.82247	3.57247	.767	7	.468