

University of Northern Colorado

Scholarship & Creative Works @ Digital UNC

Capstones & Scholarly Projects

Student Work

12-2018

Implementating a Transitional Care Program to Reduce Hospital Readmissions in Medicare Recipients: A Research Translation Pilot Project

Gail Rattigan

University of Northern Colorado

Follow this and additional works at: <https://digscholarship.unco.edu/capstones>

Recommended Citation

Rattigan, Gail, "Implementating a Transitional Care Program to Reduce Hospital Readmissions in Medicare Recipients: A Research Translation Pilot Project" (2018). *Capstones & Scholarly Projects*. 45. <https://digscholarship.unco.edu/capstones/45>

This Capstone is brought to you for free and open access by the Student Work at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Capstones & Scholarly Projects by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact Nicole.Webber@unco.edu.

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

IMPLEMENTATING A TRANSITIONAL CARE PROGRAM
TO REDUCE HOSPITAL READMISSIONS IN MEDICARE
RECIPIENTS: A RESEARCH TRANSLATION
PILOT PROJECT

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

Gail Rattigan

College of Natural and Health Sciences
School of Nursing
Nursing Practice

December 2018

This Capstone Project by: Gail Rattigan

Entitled: *Implementing A Transitional Care Program to Reduce Hospital Readmissions in Medicare Recipients: A Research Translation Pilot Project*

has been approved as meeting the requirement for the Degree of Doctor of Nursing Practice in the College of Natural and Health Sciences in School of Nursing, Program of Nursing Practice

Accepted by the Capstone Research Committee

Kathleen N. Dunemn, Ph.D., APRN, CNM-BC, Research Advisor

Marcia Patterson, DNP, NP-C, GNP-BC, Committee Member

Susan Collins, Ph.D., Faculty Representative

Scott Lamprecht, DNP, FNP-BC, Community Member

Accepted by the Graduate School

Linda L. Black, Ed.D.
Associate Provost and Dean
Graduate School and International Admissions
Research and Sponsored Programs

EXECUTIVE SUMMARY

Rattigan, Gail. *Implementing A Transitional Care Program to Reduce Hospital Readmissions in Medicare Recipients: A Research Translation Pilot Project*. Unpublished Doctor of Nursing Practice capstone project, University of Northern Colorado, 2018.

Patients discharged from hospital to home, especially the chronically ill and older adults, are too frequently readmitted within 30 days. The Centers for Medicare and Medicaid Services (n.d.; 2017) along with other interdisciplinary researchers have proposed, studied, and implemented strategies to decrease this excessive and expensive phenomenon. After the implementation of the Hospital Readmission Reduction Program in 2009, preventable readmissions have decreased but remain at unacceptable levels. Care transitions from hospital to home have been implicated as perilous and fraught with communication breakdown and lack of patient support and follow up. Strategies aimed at both the hospitalization phase and the 30-day transitional phase when the patient returns home have been developed and implemented. This research translation project implemented a program of transitional care management in a community clinic in Las Vegas, Nevada in accordance of the guidelines of the transitional care model (TCM). Five patients were referred to the clinic by two home health agencies. The project coordinator provided transitional care for these patients for the duration of their home health certification. All of the patients were high risk for rehospitalization according to evidence-based screening tools. At the end of 30 days, none of the five patients had been rehospitalized. Additionally, two patients were referred from another medical practice

and the project coordinator evaluated them through chart review and saw them once. The sample size and non-randomized sampling method precluded generalization of the findings. However, the project revealed important qualitative data relative to risks and interventions impacting rehospitalization risk as well as issues, barriers, and facilitators related to the practice of transitional care in the community setting. Several of these findings were not specifically identified within the TCM. Themes were derived from findings and a causal network was developed. Patients received excellent and effective transitional care and the project added to the body of knowledge of transitional care implementation.

Keywords: transitional care, Transitional Care Model

ACKNOWLEDGEMENTS

I would like to recognize the many individuals whose assistance was invaluable in the completion of this project. Foremost, I would like to thank my Research Advisor, Dr. Kathy Dunem, for her unwavering support and encouragement. Additionally, I am grateful to the other members of my Capstone Research Committee: Dr. Marcia Patterson for sharing her expertise and counsel regarding home care of older adults, and Dr. Susan Collins for her thoughtful review and suggestions. I am indebted to my Community Member, Dr. Scott Lamprecht, for permitting me to utilize Complete Medical Consultants as a clinical home from which to conduct my project. I am also grateful to Caring Nurses who welcomed my participation in the care of their home-bound patients. Additionally, I am grateful to Dr. Donielle Freedman for sharing her knowledge and skill related to home care. I am grateful to all my professors at the University of Northern Colorado (UNC) for providing me knowledge foundational to completing my project. Furthermore, I am grateful to my classmates at UNC, especially Caitlin Vasquez who encouraged me throughout the program. I thank all of the patients who willingly allowed me into their homes to provide transitional care. They will forever hold a place in my heart.

Finally, I am forever grateful to my fiancé, Dr. Gregory Mills, for encouraging my pursuit of my doctoral degree and for giving me strength.

TABLE OF CONTENTS

CHAPTER I. STATEMENT OF THE PROBLEM	1
Background and Significance of the Problem	1
Review of Relevant Transitional Care Literature	4
Theoretical Framework.....	12
CHAPTER II. PROJECT DESCRIPTION.....	17
Project Objectives	17
Intervention and Procedure	18
Details of Project Coordinator Actions and Interventions.....	19
Instruments.....	22
Resources	24
CHAPTER III. EVALUATION PLAN	26
CHAPTER IV. RESULTS AND OUTCOMES	28
Research Question One.....	28
Research Question Two	32
Transitional Care Model Services.....	33
Transitional Care Management Services to be Provided by the Physician or Non-Physician Provider.....	34
Research Question Three	37
Themes Identified	42
Causal Model	49
CHAPTER V. DISCUSSION.....	51
Sample Characteristics.....	51
Setting Characteristics	51
Major Findings.....	52
Strengths and Limitations of the Project.....	52
Issues.....	54
Practice Recommendations.....	56
Alignment with Doctor of Nursing Practice Essentials	61
Doctor of Nursing Practice Essentials	62

Enhance, Culmination, Practice, Implement, and Evaluate.....	67
Recommendations For Future Exploration.....	68
Dissemination of Project Results.....	69
Conclusion	69
REFERENCES	71
APPENDIX A. INSTITUTIONALREVIEW BOARD APPROVAL	80
APPENDIX B. CONSENT FORM FOR HUMAN PARTICIPATION IN RESEARCH	82
APPENDIX C. STATEMENTS OF MUTUAL AGREEMENT	85
APPENDIX D. HOSPITAL DISCHARGE SCREENING CRITERIA INSTRUMENT FOR HIGH-RISK OLDER ADULTS	
APPENDIX E. KATZ INDEX OF INDEPENDENCE IN ACTIVITIES OF DAILY LIVING	90
APPENDIX F. LAWTON INSTRUMENTAL ACTIVITIES OF DAILY LIVING.....	93
APPENDIX G. GERIATRIC DEPRESSION SCALE.....	99
APPENDIX H. MENTAL STATUS ASSESSMENT OF OLDER ADULTS: THE MINI-COG.....	102
APPENDIX I. TEMPLATE.....	105

LIST OF TABLES

1.	Home Visit Current Procedural Terminology Codes and Reimbursement	33
2.	Time Spent on Care by Project Coordinator	36
3.	Patient Scores on Transitional Care Model Risk Assessment	41

LIST OF FIGURES

1.	Model of transitional care management intervention	15
2.	Hospital discharge screening criteria instrument for high risk older adults	16
3.	Causal network including project themes and transitional care model risks and components	50

CHAPTER I

STATEMENT OF THE PROBLEM

Background and Significance of the Problem

Patients discharged to home from acute care facilities, especially the elderly and those with chronic health conditions, are too frequently readmitted to the hospital within a 30-day period. Approximately 20% of Medicare recipients are readmitted within 30 days of discharge from hospital to homes across the United States. These readmission rates cost Medicare approximately \$17.4 billion per year (Alper, O'Malley, & Greenwald, 2016). Excessive readmissions carry not only a financial cost but a human one. Repeated hospital admissions profoundly impact quality of life for these seniors. Some of these readmissions are unavoidable but an estimated 12% are preventable (McIlvennan, Eapen, & Allen, 2016).

Demographic and healthcare system changes have contributed to this existing problem with the following factors playing a predominant role. The U.S. population is aging. From 2010 to 2030, the population of U.S. individuals age 65 and older is expected to increase from 39 to 69 million. Vaccinations, antibiotics, and improved hygiene and sanitation have significantly decreased early deaths from infectious disease (National Institute on Aging, n.d.) while medical advances offer improved management of chronic disease. Insurance reimbursement, managed care, and efforts to reduce length of hospital stays often result in patients being discharged too hastily (Fox & Kongstvedt,

2012). Hospitalized patients are generally cared for by a hospitalist team rather than their primary physician. The presence of a hospitalist is efficient and offers quick access to a provider but care continuity suffers (Pfefferkorn, 2006). Finally, fragmentation of care from hospital to home often results from poor communication, inadequate risk assessment, and lack of follow up and support (Naylor et al., 2013).

“Transitions of care refers to the movement of patients between health care practitioners, care settings, and home as their condition and care needs change” (The Joint Commission, n.d., p. 3). Care transitions have long been recognized as vulnerable intervals fraught with the potential for poor outcomes including unnecessary hospital readmission (Naylor, Aiken, Kurtzman, Olds, & Hirschman, 2011). Transitional care is aimed at the precarious period when patients move from one setting to another (Naylor, 2000). Transitional care is only one strategy employed to improve management of chronically ill and vulnerable individuals. Other strategies include care coordination, disease management, and case management (Naylor et al., 2011). Unlike other strategies, transitional care is time-limited and designed to provide short-term needed services to ensure safe transfers of patients from one hospital to home, provide continuity, and prevent poor outcomes including unnecessary hospital readmissions (Naylor, 2000).

The Centers for Medicare and Medicaid Services (CMS; 2016a, 2016b) recognizes transitional care as an important component in healthcare quality improvement and cost reduction. In 2012, CMS (2017) implemented the Hospital Readmissions Reduction Program (HRRP) supported by section 3025 of the Affordable Care Act. This program encouraged improvements in transitional care during and after hospital admissions and implemented a graduated program of reduced reimbursement for

hospitals with excessive readmissions (CMS, 2017), adding financial disincentives to hospitals failing to comply. Additionally, CMS established two reimbursable new current procedural terminology (CPT) codes for health care providers delivering transitional care to Medicare recipients upon acute care discharge (CMS, 2016b). Specific required components included (a) an interactive contact with the patient within two business days of discharge, (b) defined treatment and care coordination services, and (c) a face-to-face visit within 7 or 14 days depending on patient acuity and complexity (CMS, 2016b).

Since the implementation of the HRRP, hospital readmissions have decreased. Across the country, an estimated 565,000 fewer Medicare recipients were admitted from April 2010 to May 2015 (Boccuti & Casillas, 2017). The CMS has devised a method to predict expected readmissions based on diagnosis-related groups (DRG) reflective of patients' main diagnoses (The DRG Handbook, 1996). Hospitals across the United States are evaluated on excessive readmissions based on predictions. Significant variation still exists between hospitals and between states and communities; there is much room for improvement. In Las Vegas, Nevada, where the author resides, several hospitals have documented readmission rates worse than the national average (CMS, n.d.). The CMS (n.d.) rates hospitals on 57 quality measures including unexpected readmissions and assigns one-through-five stars based on performance. Only two hospitals in Las Vegas achieved three stars and three of the largest hospitals, two for-profit and one not-for-profit, achieved one star (CMS, n.d.). These statistics indicated a need for improvement in care including transitional care.

Review of Relevant Transitional Care Literature

Health care in general in the United States is fragmented and often poorly coordinated. This significantly impacts frail elders. This group often has multiple chronic illnesses, complex medication regimens, and physical and cognitive disabilities. The transition from hospital to home, often with changes in prescribed therapies, is especially prone to gaps in care for this vulnerable population. They might lack either the understanding of hurried discharge instructions from busy hospital nursing staff or lack the resources to adhere to them. When discharged from hospital to home, patients are often left to their own resources to make and travel to a follow-up appointment to their primary care provider. Wait times for provider visits are often lengthy and patients might deteriorate and be readmitted before they ever have a hospital follow-up visit. When patients call their provider with problems, the response is more often than not “go to the emergency department.” If they take this advice, they are likely to be readmitted simply due to the complexity of their issues.

A number of transitional care and other quality improvement strategies have been studied and implemented. An early effort by CMS (2016b) offered grants for innovations in transitional care. The CMS offered initiatives to programs to produce innovation in transitional care by partnering community-based organizations (CBOs) with underperforming hospitals to improve transitional care. The program called for identification of high-risk patients, citing identifiers such as multiple co-morbidities, frequent rehospitalizations, depression, and cognitive impairments. The requirement for program success was reduction in hospital readmissions. The guidelines were very general, calling only for CBOs to provide:

- Care transition services that begin no later than 24 hours prior to discharge;
- Timely and culturally and linguistically competent post-discharge education to patients so they understand potential additional health problems or a deteriorating condition;
- Timely interactions between patients and post-acute and outpatient providers;
- Patient-centered self-management support and information specific to the beneficiary's condition; and,
- A comprehensive medication review and management, including—if appropriate—counseling and self-management support. (CMS, 2016a, para. 6)

The community-based care transitions program left enrollees to design and implement their own transitional care programs. A variety of approaches ensued. Transitional care providers included social workers, nurses, and, in some cases, unlicensed personnel. Of the 48 enrolled sites, only nine achieved success on two of the outcome measures: (a) implementing services within three months of enrollment and (b) enrolling adequate program participants. Of the 48 sites, only four additionally achieved significant reduction in hospital readmissions (CMS, 2014). Characteristics of success in reducing hospital admissions included the use of social workers and registered nurses as opposed to unlicensed personnel.

Coleman, Min, Chomiak, and Kramer (2004) studied patients participating in the Medicare Current Beneficiary Survey for two concurrent years. Their aim was to classify transitions as complicated and uncomplicated and identify indices that could be

extrapolated from administrative data alone predictive of complicated transitions. Patients identified as complicated could then be assigned to more intensive intervention strategies. Indices identified were similar to those identified by other researchers with the addition of being a Medicaid recipient serving as a potential indicator of complex transitions (Coleman et al., 2004). This model could be used to identify patients requiring intensified transitional care.

Coleman, Oarrt, Chalmers, and Min (2006) additionally developed a transitional care intervention and tested it in a randomized controlled trial of 750 patients from a large integrated health system in Colorado. Subjects were age 65 and older, community dwelling, and required to be (a) English speaking, (b) have no documented dementia, (c) have a working telephone, and (d) have one of 11 chronic disease diagnoses. The patients in the control group ($n = 371$) received usual discharge care. The intervention group ($n = 379$) received the care transition intervention. The intervention was based on four pillars: (a) Assistance with medication self-management, (b) a patient-centered medical record, (c) timely follow up with either a specialist or primary care provider, and (d) a list of “red flags” for patients to watch for indicating the need to seek help. Advanced practice nurses (APNs) administered the program but did not actively participate in managing the patient and served as coaches to improve patient self-care strategies. The APN visited the patient within 48-72 hours and then telephoned the patient three times in a 28-day period. Recipients of this intervention were significantly less likely to be readmitted at 30-, 90-, and 180-days. The estimated net cost savings was \$295,500 (Coleman et al., 2006).

The patients in this study were conceivably less complex than those chosen for intervention within other models. For example, requiring only one chronic diagnosis could mean the patient simply had diabetes and still qualified for selection. This model is now widely used and has become a patented proprietary program available for interested health care constituents (“The Care Transitions Program”, n.d.). Dr. Coleman is a medical doctor (MD) and has a master’s degree in public health (MPH). He works with the Division of Health Care Policy and Research at the University of Colorado Health Services Center in Denver (Coleman et al., 2006).

Saleh, Freire, Morris-Dickinson, and Shannon (2012) studied the effect of a transitional care intervention on a group of elderly discharged patients in a single semi-rural hospital in upstate New York. In this randomized controlled trial, patients were randomized to the control or intervention group without regard for evaluation of risk. The control group ($n = 160$) received usual discharge management. The intervention group ($n = 173$) received three home visits from a registered nurse, structured discharge interventions following a discharge checklist, enhanced patient education and attention to self-management, and a follow up with a physician within seven days of discharge. The main end-point of the study was hospital readmission. The intervention group was less likely to be readmitted than the control group (48% versus 58%), $p < .08$. The calculated net savings between groups was \$1,034. Notably, a number of sicker patients were excluded including those with end-stage renal disease, severe psychological conditions, primary diagnosis of a tumor, and those with dementia without a caregiver (Saleh et al., 2012).

Hansen et al. (2013) designed Project BOOST (Better Outcomes for Older adults through Safe Transitions), a hospital-based program complementary to transitional care programs targeting post-hospital care. Key components of project BOOST are aimed at a safe transition prior to discharge and include (a) medication reconciliation, (b) patient education, (c) primary care provider communication, and (d) discharge planning. Project BOOST offers a toolkit for those interested in implementation within their facilities and ongoing mentor support through the implementation process (Hansen, 2016). A full copy of the study was not available at the time of this writing but the abstract revealed an absolute reduction of readmission in participating hospitals of two percent (Hansen et al., 2013).

The most studied and comprehensive transitional care efforts involved the development of the transitional care model (TCM; Naylor, 2000). In 1981, long before CMS formally identified flawed transitional care as a contributor to avoidable hospital readmissions, an interdisciplinary team led by Mary Naylor (2000) at the University of Pennsylvania School of Nursing was designing a transitional care program focused on providing better risk assessment and follow up of discharged elderly patients by APNs in an effort to reduce avoidable readmissions as well as to provide data on patient outcomes, care quality, and costs.

The transitional care research was inspired by Dr. Naylor's (2000) work with the U.S. Senate Special Committee on Aging. The committee identified alarming trends in poor outcomes and frequent readmissions associated with earlier discharge of vulnerable seniors. A paucity of empirical data identified which hospitalized elders were at risk of readmission after transitioning to home (Naylor, 2000). Naylor and a group of like-

mindful colleagues including nurse and physician scholars and clinicians, a health economist, and statisticians initially sought to develop a model to provide a safety net to vulnerable patients to improve outcomes and costs while increasing patient satisfaction with care. The model initially selected was the quality model of APN transitional care. Demographic and health-related factors utilized in the data collection were retrieved partly from data retrieved from *The DRG Handbook* (1996), which provided admission and discharge data based on Medicare diagnosis-related groups (DRGs). With each study, the instrument and model were refined (Naylor, 2000).

From 1981 to present, researchers conducted a number of studies of the transitional care model. In the 1980s and 1990s, two National Institutes of Nursing research-funded studies had been completed (Naylor, 2000). The first study examined the effectiveness of a comprehensive discharge planning protocol specific to hospitalized elders being discharged to home. The sample included 276 elders--136 in the control group and 140 in the intervention group. The control group received usual discharge planning performed at the study sites. The intervention group received routine discharge planning plus a comprehensive discharge program implemented by APNs beginning in the hospital with close post hospital follow-up. Measurements of patient outcomes and cost at two-, six-, and 12-weeks after discharge revealed the intervention group had significantly fewer readmissions than the control group. Group differences were more pronounced among medical than surgical patients and among patients with multiple comorbidities and functional deficits. Findings suggested evaluating patients for risk of readmission and targeting those at greatest risk for intensive transitional care (Naylor et al., 1994).

A second randomized clinical trial focused on an APN-conducted intervention for high-risk discharged elders. The sample involved 363 hospitalized elders (186 in the control group and 177 in the intervention group). Based on findings from the previous study, participants were specifically chosen to include high risk patients who met criteria associated with poor post-discharge outcomes including (a) age 80 years or older; (b) multiple active chronic health problems; (c) inadequate support systems, multiple hospitalizations during the past six months, or any hospitalization in the past 30 days; (d) history of depression; (e) moderate to severe functional impairments; and (f) poor adherence to their prescribed therapeutic regimen (Naylor et al., 1999). In addition to usual discharge planning, the intervention group received APN visits in the hospital, within 48 hours after discharge, 7-10 days after discharge, and unlimited access to the primary APN by phone. At 24 weeks, the intervention demonstrated a savings of \$600,000 in the intervention group (\$3,000 per patient) by significantly decreasing hospital readmissions. Thirty-seven percent of control group patients were readmitted at least once in contrast to 20% of intervention-group patients ($p < .001$; Naylor et al., 1999). Risk criteria used in this study remain part of the existing TCM hospital discharge screening criteria for high risk older adults (Shaid, Bixby, Hirschman, McCauley, & Naylor, 2016)

Heart failure is the leading cause of hospitalization in those 65-years-old and above (Desai & Stevenson, 2012). More than one million patients are admitted with a primary diagnosis of heart failure each year in the United States with associated costs to Medicare surpassing \$24 billion. Furthermore, more patients with heart failure are readmitted within 30 days of hospital discharge than any other group (Desai &

Stevenson, 2012). These statistics fail to represent the enormous human suffering associated with this chronic debilitating disease. Naylor et al. (2004) tackled this difficult disease with a randomized controlled trial directed at adults hospitalized with heart failure. Two hundred thirty-nine patients age 65 and older (121 in the control group and 118 in the intervention group) were enrolled in a study conducted at six academic and community hospitals in Philadelphia (Naylor et al., 2004). The control group received usual post-discharge heart failure care. The intervention group received interventions according to TCM guidelines coordinated and performed by APNs with expertise in management of heart failure. The intervention group was 22% less likely to be re-hospitalized or die within one year. Even with the expense of additional APN care, the net health care savings was \$4,006 per patient. Intervention group patients reported greater quality of life ($p < .05$) and greater satisfaction with care ($p < .01$). Although care needs and hospitalization continued to be high due to the chronic and progressive nature of the disease, the intervention made a difference in cost and quality (Naylor et al., 2004).

Further studies by the multidisciplinary team at the University of Pennsylvania refined the TCM. The university partnered with Aetna Insurance Company in a study to test the application of the model to clinical practice (Naylor et al., 2013). This and all studies of this model to date showed significant cost reduction by reduced hospital readmission in high risk patients even considering the increased care costs of APN transitional patient management. Many researchers and health care constituents have studied and recommended transitional care strategies but no model has been as well researched as the TCM (Hirschman, Shaid, McCauley, Pauly, & Naylor, 2015). Key differences in this model were its intricacy, attention to detail, tailoring interventions to

assessed risk, the use of APNs to administer the transitional care, and the inclusion of even the sickest and most complex patients. The model has evolved into a refined program with defined core components, an established training seminar, and a risk-evaluation tool.

The literature revealed much work has been done to identify strategies to improve transitional care and reduce unnecessary readmissions. Unfortunately, no universal application of these evidence-based practices has been done across the United States. Project BOOST (Hansen et al., 2013), one of the widely-used hospital-based programs, is not yet utilized in Nevada for example. Transitional care is being performed without regard to evidence-based guidelines by providers seeking to capitalize on reimbursement opportunities. Hospital readmissions within Las Vegas and Reno Nevada hospitals remain above predicted.

Theoretical Framework

The theoretical framework guiding patient transitional management for this project was the transitional care model (Naylor et al., 2017) inclusive of a straightforward, well-defined set of evidence-based practices found to decrease unplanned readmissions. Only one study translating TCM research to the community has been published (White, Dudley-Brown, & Terhaar, 2016). A structured approach to translation in a small community practice would ensure application of the best evidence to practice and provide clarity to others seeking to implement transitional care by more precisely explaining the process (White et al., 2016). The concept most appropriate for translation of the TCM to practice is the bundle, which provides a straightforward set of evidence-practices proven to improve patient outcomes (White et al., 2016). The TCM

explicitly outlines action-based interventions well-supported by the concept of a bundle. Additionally, the population involved in the project was relatively homogenous in terms of age and health status. Bundles have been described as “the best possible care for patients undergoing particular treatments with inherent risk” (White et al., 2016, p. 163). Elders transitioning from hospital to home fit that description.

The TCM employs specific and detailed evidence-based interventions implemented by APNs to coordinate care of the patient transitioning from hospital to home, manage problems arising during the transitional period, enhance communication with the care team, and ensure patient access to all needed resources (Hirschman et al., 2015). The TCM espouses patient-centered care. The following nine components are involved in the implementation of the TCM:

1. Screening: Targets adults transitioning from hospital to home who are at high risk for poor outcomes.
2. Staffing: Uses APRNs who assume primary responsibility for care management throughout episodes of acute illness.
3. Maintaining relationships: Establishes and maintains a trusting relationship with the patient and family caregivers involved in the patients’ care.
4. Engaging patients and caregivers: Engages older adults in design and implementation of the plan of care aligned with their preferences, values, and goals.
5. Assessing/managing risks and symptoms: Identifies and addresses the patient's priority risk factors and symptoms.

6. Educating/promoting self-management: Prepares older adults and family caregivers to identify and respond quickly to worsening symptoms.
7. Collaborating: Promotes consensus on plan of care between older adults and members of the care team.
8. Promoting continuity: Prevents breakdowns in care from hospital to home by having same clinician involved across these sites.
9. Fostering coordination: Promotes communication and connections between healthcare and community-based practitioners. (Hirschman et al., 2015, para. 9)

Figure 1 depicts the centrality of the patient, his/her family, and caregivers within the transitional care interventions.

Implementation of the TCM in transitional care seeks to empower patients, their families, and other care-givers to self-manage. One important aim is reduction of readmissions and elimination of unplanned, unnecessary readmissions. The first component, screening, is important as it allows the APN to risk-stratify patients and tailor interventions depending on risk.

The TCM includes an existing instrument utilized to evaluate risk of readmission. The instrument encompasses select demographic characteristics of the patient and additional measurement instruments to validate objective subject data. These factors were found by the University of Pennsylvania researchers and others to identify patients who could benefit from intensified TCM intervention. Figure 2 provides the TCM Hospital Discharge Screening Criteria Instrument for High Risk Older Adults (HDSCI):

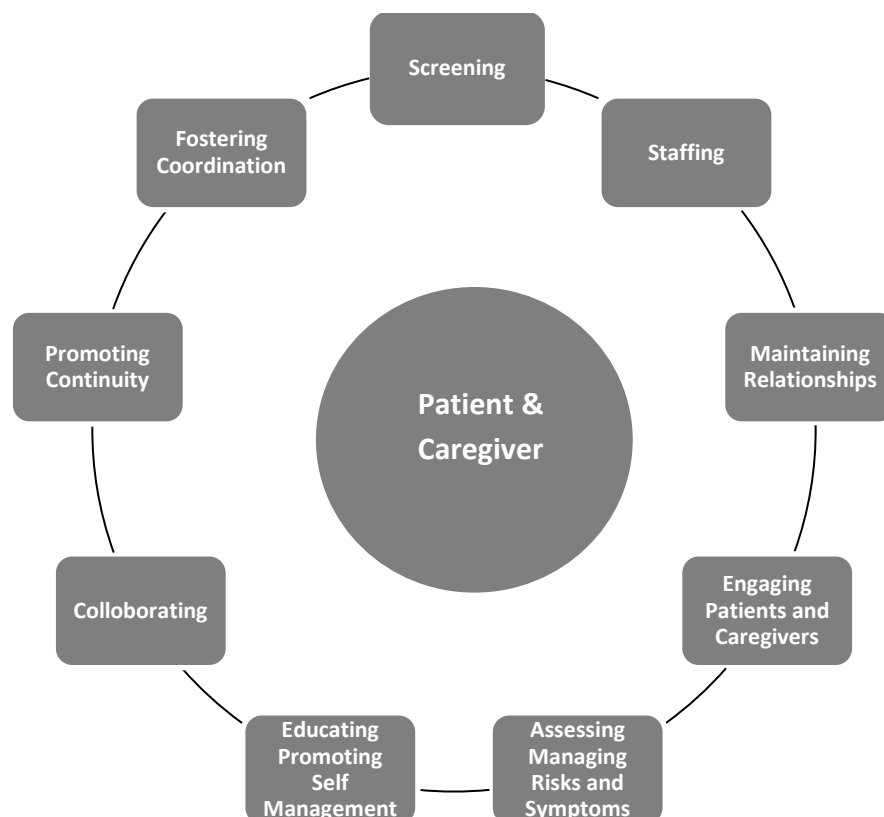


Figure 1. Model of transitional care management intervention.

All 10 screening criteria were found to correlate to higher risk during transition from hospital to home--both by the TCM studies and other groups (Naylor et al., 1994, 1999, 2013; Nielsen et al., 2008). Data collected for risk assessment might include information from an existing medical record while some data were collected utilizing an established instrument during the APN's first visit with the patient. These data would include functional ability, cognition, and mental illness. Additionally, other validated assessment instruments were identified within the TCM to be used at the discretion of the APN. Screening for health literacy could be accomplished through the brief health literacy screen.

Are the following statements true for the patient? Check if yes.

Age 80 or older

Moderate to severe functional deficits (HARP>2, KATZ,4, Lawton<5)

An active behavioral and/or psychiatric health issue (GDS>5)

Four or more active co-existing health conditions

Six or more prescribed medications

Two or more hospitalizations within the past 6 months

A hospitalization within the last 30 days

Inadequate support system

Low health literacy

Documented history of non-adherence to the therapeutic regimen

If 2 or more findings are present further investigation is warranted and formal collaborative assessment of discharge planning – transitional care needs should be initiated

Cognitive impairment (Mini-Cog positive)

Any suspected or diagnosed cognitive impairment with or without the above screening criteria would independently trigger post-discharge intervention to assure appropriate information transfer and follow-up after discharge to home or other care setting.

Figure 2. Hospital discharge screening criteria instrument for high-risk older adults (Bixby & Naylor, 2009, p. 2).

CHAPTER II

PROJECT DESCRIPTION

Project Objectives

This research implementation pilot project sought to translate an evidence-based transitional care model to provide transitional care to Medicare recipients in a community setting. Initially, the project sought to answer the following two research questions:

- Q1 Will the transitional care model translate from large randomized controlled trials to a small community clinic setting, resulting in reduced hospital readmission rates?
- Q2 Will implementation of the transitional care model provide a financial rationale to provide sustainability of the program?

Answering these questions was important in determining generalizability of the TCM to a community setting. Many prior studies were large, controlled, and well-funded studies so determining generalizability to other settings was essential. Additionally, financial feasibility was important to both sustaining the program and recommending modifications.

As the study unfolded, the centrality of qualitative components became undeniable. According to Bazeley (2018), "Research design is not a stage, it is a process, and that process is neither fixed nor linear, but rather a reflective, interactive process iteratively evolving throughout a project" (p. 23). Thus, a third study question was added:

- Q3 What themes will emerge explicating the phenomena affecting rehospitalization of older adults?

Intervention and Procedure

The initial intent was to collect a convenience sample of patients referred from various local home health agencies to Complete Medical Consultants (CMC), a private primary care practice owned and operated by Scott Lamprecht and his wife, Lynette Lamprecht. Scott is a family nurse practitioner (NP) and holds a doctorate in Nursing Practice. Dr. Scott, as he is fondly referred to by his staff and patients, is a passionate, visionary, and industrious professional. The first NP in Nevada to open an independent practice, he sees 3,000 patients per year in his clinic. Additionally, he teaches in a national online NP program and regularly precepts NP students. His company includes an education branch providing Advanced Cardiac Life Support, Basic Life Support, Pediatric Life Support, and other courses for the community. He participates in outreach courses in rural Nevada and is past president of the Nevada Nurse's Association. Scott conceived the transitional care project, provided CMC as a home base for the project coordinator, and collaborated with the project coordinator in providing transitional care to project patients. The project coordinator became credentialed with the practice and worked several shifts, seeing patients in the clinic to get to know clinic staff and routines and learning the electronic health record (EHR). Patient referrals were accepted immediately following Institutional Review Board (IRB) approval of the project (see Appendix A). During that interval, the project coordinator also met with referring representatives of the primary home health agency at agency staff meetings to explain the project. She obtained access to the home health agency EHR and the encrypted text communication system utilized by the agency. Continued immersion in the home health

community was an important component of collaboration and communication. The project coordinator had never practiced home health so learning the specialty was facilitated throughout the project. The project coordinator performed the role of transitional care APN for all patients referred for care. Five patients were referred during the sample collection interval who met the criteria for the project. Dr. Lamprecht collaborated by visiting patients as needed if the researcher was unavailable. All patients were followed by the project coordinator and managed according to TCM guidelines for the entire duration of their home health certification--60-days in most cases.

Details of Project Coordinator Actions and Interventions

Each referred patient was promptly contacted by phone and a home visit by the project coordinator was scheduled. In all cases, the patient's immediate family member was present for the visit. Prior to the initial face-to-face visit, hospital records were reviewed. During the initial face-to-face visit, the project was explained and informed consent obtained (see Appendix B). A detailed history and physical and medication reconciliation were performed including screening for readmission risk with the TCM tool. Screening data already obtained by the registered nurse (RN) case manager were utilized to avoid duplication. An assessment and plan were developed and confirmed with the patient and their family member for congruence. Any immediate health needs were addressed. In most cases, this involved ordering medication or other treatment otherwise unavailable to the patient. Patients were assisted as necessary with obtaining prompt appointments with primary care providers and specialists as possible. In two cases, patients did not have a primary care provider and were assisted with establishing one. If a health problem required involvement of another provider, the project

coordinator attempted to contact that provider to collaborate on medical decision making. In most cases, calls were not returned.

The project coordinator also intervened in social dilemmas such as lack of transportation to appointments. One patient was transported by the project coordinator to four appointments, allowing the project coordinator face-to-face access to providers who otherwise were not accessible. Patients were assisted in getting needed supplies and prescriptions. In some cases, groceries and medical supplies were purchased for patients who lacked adequate funds. The project coordinator communicated with each patient at least weekly either by phone or in person, and more often as necessary. Patients all had the project coordinator's personal cell phone and were encouraged to call any time with problems or questions.

Additionally, the project coordinator communicated and collaborated with members of the home health team by encrypted text or by phone. Requests for orders from the registered nurse case manager were addressed and patient progress was reported in both directions. Ongoing health issues were assessed and resolved during the transition period.

The patient's caregiver and family were involved in visits and the patient and caregiver received education as needed regarding medications, disease management, and indications for seeking help. Support continued for a minimum of 30 days following hospital discharge as defined within the TCM. Additionally, support continued for the duration of the home health certification.

In the process of immersion in the home health environment, the project coordinator met an internal medicine physician who owns a primary care practice

exclusively devoted to home care. The practice provides not only transitional care but chronic care of home-bound Medicare patients. The physician offered assistance and oversight and the project coordinator accepted two patients from the group. Most data from these patients were obtained by chart review although the project coordinator did visit each patient once. Most management of these patients was performed by APNs from within that practice group and not in strict accordance with the TCM model so quantitative data were excluded from comparison. However, the involvement of the project coordinator with these patients, their management, practice organization, and the physician overseeing the home care practice was tremendously valuable in terms of enriching the qualitative data obtained and enhancing the knowledge of the project coordinator in home management of older adults. Statements of Mutual Agreements were obtained from each practice (see Appendix C). The project coordinator submitted credentialing documents to the physician owner of the practice and was given access to the practice EHR for record review and documentation.

Some deviations from the TCM evolved. Patients were referred upon discharge from the home health agency so initial contact in the hospital was not possible. This adaptation to local constraints was also evidenced in a recent implementation project by Naylor et al. (2013) wherein the APNs did not actively manage the patient but rather coordinated management by primary providers and specialists. The role of the home-visiting APN consulted by the home health agency is to write orders as needed. Additionally, patients often had no other readily available source of needed medical care. Medical interventions provided to patients were a combination of orders written by the patient's providers and the project coordinator. Moreover, transitional care was defined

as a limited intervention of 30 days. Home health patients were certified for 60 days and the home health agency depended on the availability of the APN for the entire certification period. Continuity of transitional care would have suffered if the project coordinator became unavailable half-way through the certification period. In most cases, no resource was available to continue needed care being provided by the project coordinator. In the interest of patient outcomes and safety, care was continued until patients were discharged from home health.

Instruments

The risk assessment tool developed within the TCM was utilized during initial evaluation--the Hospital Discharge Screening Criteria Instrument for High-Risk Older Adults (Bixby & Naylor, 2009; see Appendix D). The screening tool has been tested and refined within multiple randomized controlled trials of the TCM and a score greater than two correlates with increased risk of readmission (Bixby & Naylor, 2009). Many of the demographic and health measures are quite concrete. For example, measuring age, diseases, and number of medications requires only accurate data collection and should not be complex. The instrument incorporates a number of other instruments aimed at evaluating physical function and mental and emotional health. The Katz Index of Independence in Activities of Daily Living (Katz ADL; Shelkey & Wallace, 2012) has been used for over 40 years to determine whether elderly individuals are independent in each of six defined activities of daily living: (a) bathing, (b) dressing, (c) toileting, (d) transferring, (e), continence, and (f) feeding (see Appendix E). Each item is scored “yes” or “no.” A score of six indicates full function in all six ADLs. A four indicates moderate dysfunction and a two or less indicates severe impairment (Shelkey & Wallace, 2012).

No specific reliability or validity data were reported for the Katz ADL but, again, it was quite straight-forward. The Lawton Instrumental Activities of Daily Living (IADL; see Appendix F) scale similarly measures eight domains of expanded abilities (Graf, 2013). The IADL is the most appropriate tool to use to measure independence as its reliability and validity have been established to some degree with correlations of 0.01 to 0.05 (Graf, 2013).

The Geriatric Depression Scale (GDS-15; Marc, Raue, & Bruce, 2008) is widely used, easily administered, and excludes responses related to physiological issues (see Appendix G). Its sensitivity and specificity have been compared through studies and are consistent with the longer assessment tool--the GDS-30 (Marc et al., 2008). Finally, the Mental Status Assessment of Older Adults: The Mini-Cog (see Appendix H) is a screening tool for dementia and has strong predictive value; however, it should not be used in isolation for dementia diagnosis (Doerflinger, 2013).

The strengths of the entire instrument and sub-instruments are ease of use, simplicity, reliability over time, and solid validity as a screening tool. All are widely used in research and freely available. Together, they present an accurate evaluation of a discharged patient's risk of readmission. The TCM allows individual APN judgment to administer additional screening as appropriate.

A template developed by the researcher was used to track calls, visits, and interventions (see Appendix I). Assessment tools, history and physical, progress notes, and medical decision-making documentation were collected and retained within the respective medical records as required by each medical practice and home health agency.

Each patient was assigned a pseudonym and templates and notes were typed for use in data analysis.

At 30 days, hospital readmissions were measured. The original project plan intended to compare outcomes to reference readmission rates. Intended comparisons were to be based on patients within the home health population outside the intervention group and local data from CMS (n.d.). Since patient recruitment yielded only five patients, significant quantitative comparison of this small convenience sample to reference data was not feasible. Additionally, each of the five patients referred for transitional care received full APN interventions from the project coordinator in terms of frequent visits and availability. The sample size and uniformity of interventions precluded any comparison of outcomes related to patient complexity. Despite the small sample size, much meaningful qualitative data were gleaned from this multi-methods pilot implementation project.

Resources

The financial rationale for transitional care in Medicare recipients discharged from hospital to home was well-documented in the review of literature. Marketing of the project was accomplished through several meetings with the home health agency. A considerable amount of time was spent by the project coordinator in implementing this project. For example, during the three-month duration of the project, most of the project coordinator's time was involved with some aspect of patient care. Time commitment averaged 16-24 hours per week including visiting patients, reviewing data, and documenting visits; in many cases, this involved two EHRs. Primary care agencies were free to bill for the patient visits although the project coordinator was not compensated.

Additional costs involved paper, printing, and travel expenses within the greater Las Vegas community. Minimal costs were incurred in the purchase of medical supplies and groceries for the two patients lacking funds.

Part of the intended evaluation of this project was to determine the generalizability, feasibility, and sustainability of implementation of evidence-based transitional care in a community setting. The detailed findings associated with this aspect of the project are further explicated in the discussion of results.

CHAPTER III

EVALUATION PLAN

All patient visits were documented in the EHR of the respective agencies. Additionally, care provided and patient demographics were documented in a template (see Appendix I). Reflections on patient experiences and beneficial or detrimental phenomena were also included. Rough templates were typed, each patient was given a pseudonym, and any other worksheets outside the protected formal EHR of the home health agency or transitional care providing practice were shredded. Differences in readmission rates between project patients and comparison groups were examined at 30 days; in some cases, it was longer, depending on length of home health certification.

Initially, statistical analysis of differences in readmissions based on risk and diagnosis was planned. However, none of the five patients followed by the project coordinator over the study period was readmitted and the small sample size precluded significant quantitative comparisons. The results of a comparison might be made between the intervention group and comparison groups in a simple statement. According to America's Health Rankings (2018), the rate for all-cause, 30-day hospital readmissions among Medicare recipients discharged from hospital to home nationally is 14.9%; in Nevada, the rate is 15.6%. The readmission rate for individuals with heart failure is still 25% (Bergethon et al., 2016). The readmission rate in the project group was zero including one patient with heart failure who had been admitted four times successively in

the two months prior to commencing participation in the study. The convenience sample of five patients was small and there was no difference in readmission rates among those five patients. Therefore, quantitative comparison was not helpful in understanding causality or correlation of risk or morbidity in this project.

The initial research questions sought to determine the generalizability of the TCM to a community setting and the financial feasibility and sustainability of the program. These questions were answered by explicating the project coordinator's successes and challenges in implementation, a financial analysis, and comparisons to other existing TCM programs.

Prior large studies have established the utility of the TCM in decreasing readmission rates among seniors. Despite efforts, readmissions remain excessively high. The project coordinator discovered a rich trove of qualitative data that were analyzed and presented to add to understanding the phenomenon and experience of preventing hospital readmission.

Analyses of qualitative data were performed according to guidelines developed by Miles and Huberman (1994). Typed templates were evaluated for meaningful data, which were coded, clustered, and organized into common themes. The small sample and saturation of themes allowed hand-coding of data. Vignettes were created to illustrate themes. Support from the literature for identified themes was included. Themes were organized into a causal network. Additionally, the project chair reviewed and corroborated findings to lend inter-rater reliability.

CHAPTER IV

RESULTS AND OUTCOMES

Every transitional care program (TCP) endeavors to reduce unnecessary readmissions. As such, the most objective and tangible result of this project was the zero number of readmissions among patients managed by the project coordinator. This compares to somewhere between 15 and 25% nationally depending on diagnosis and region. However, the small sample size made it impossible to determine if the intervention resulted in a significant reduction in readmissions or whether this was serendipitous. The remainder of the discussion of results and outcomes focuses on the research questions.

Research Question One

Will the transitional care model translate from large randomized controlled trials to a small community clinic setting, resulting in reduced hospital readmission rates?

The readmission rates of participants in this project were certainly reduced but, again, the sample size and convenience collection precluded any generalizability. A larger sample size was initially planned but the convenience nature of the sample limited it to referred patients. Additionally, in hindsight, it took a tremendous amount of work to optimally manage these five complex patients; thus, a higher sample size would have been overambitious. Although the sample size was small, one should not discount that none of the five participants was readmitted even though all were at risk. The project

coordinator had to take some credit for keeping these patients stable and in their homes. Interventions undertaken are discussed in detail.

The feasibility of implementing a TCP in the environment in which it was undertaken was not ideal. A sole APN working in collaboration with a colleague with multiple competing responsibilities does not have the resources to optimally manage a TCP. The 24/7 availability to patients in itself would be untenable when undertaken by one individual; however, this availability was necessary for program success. It became apparent during implementation of the project that an effective TCP ideally involves a collaborative team. The first exclusive transitional management company recently opened its doors in California. Global Transitional Care (2018) employs a Chief Executive Officer, a Chief Operating Officer, a physician Medical Director, an RN Director of Nursing, two Geriatric APNs, RN and Licensed Vocational Nurse transitional care coordinators, and an additional unlicensed transitional care coordinator. This did seem a bit excessive in terms of personnel overhead in terms of fiscal rationality. Based on the project coordinator's experience with providing transitional care, essential elements of a team should include a closely interwoven group of at least two APNs, a savvy biller, and a practice manager. Providers should also be competent in Medicare coding and billing as their documentation drives billing and reimbursement. Additionally, with current Medicare billing requirements, a physician team member is essential to expeditious operation and maximum reimbursement at least until Medicare changes legislation to allow APNs to order home care.

Recognition of the effectiveness of an integrated and highly collaborative team became clear while the project coordinator interacted with the physician home practice

group. The group employs the physician owner, a practice manager, scheduler, biller, and two nurse practitioners. They all share an open office on the second floor of their building while the first floor is attractively set up for meetings. As an exclusively home health practice, they have no need for exam rooms or medical equipment in the office. According to the physician owner, the practice is fiscally sound although it took years to develop the present success.

Working closely with a home health company who collaborated well was a distinct facilitator. Close collaboration and communication with the home health team was facilitated by an encrypted, HIPAA-compliant text messaging system. The project coordinator was able to easily communicate with the RN case manager and the other members of the team. Not all home health agencies are as equally effective and collaborative.

Conversely, there were disadvantages to working only with patients referred from a home health company. To qualify for home health services, patients must meet criteria for being homebound. Not all Medicare recipients discharged from hospitals are homebound; thus, this referral mechanism eliminated an entire population of patients, some of whom could have benefited from a TCP. Additionally, the role of the APN working with home health is perceived differently than that of an APN within the TCM. Home health RNs are the case manager, develop the patient care plan, and envision the APN as one who performs the face-to-face encounter and is available for consultation if problems assessed by the RN arise. Some conflict occurred when the project coordinator was perceived to be performing functions usually completed by one of the home health team members. The project coordinator had to calm some ruffled feathers and work hard

to attain recognition as a valued member by the home health team to preserve a collaborative effort. Finally, there was imperfect hand-off communication between the hospital and the transitional care APN. Visiting the patient in the hospital and being able to interact with managing hospitalists and specialists would have been superior to reading discharge reports. In some cases, events occurred after discharge reports were dictated and details of these events were only available from the patient.

The component of the TCM precluding APNs from writing orders seemed limiting, especially in Nevada where it ranks 47th in physicians per capita (Packham, Griswold, Jorgensen, Etchegoyhen, & Marchand, 2016). According to America's Health Rankings (2018), 28.9% of Nevadans have no source of usual care. The project coordinator's frequent difficulty contacting physicians corroborated this assertion. Furthermore, APNs are fully qualified to manage many health conditions and this component of the TCM restricted APN practice, especially in Nevada where APNs practice autonomously.

In summary, facilitators in the success of the project were the project coordinator's ability to write orders to manage patient health conditions, 24/7 availability for patients, and a working collaboration with the home health team. Having CMC as a home base and an established source of referrals was essential. Additionally, working with the physician home practice was enlightening and supportive. Essentially being the sole provider of the majority of transitional care promoted continuity--one component of the TCM.

Barriers were the lack of an integrated and easily available transitional care team within CMC. Being available 24/7 for project patients was a dual-edged sword. It was

absolutely necessary for patient support but very challenging for one individual to undertake. Having a second APN to alternate with consistently would allow continuity while providing respite for each. Another dichotomous factor was the method of patient recruitment that eliminated discharged Medicare patients not requiring home health but who could still benefit from a TCP. Working with a home health agency also created some role conflict for an APN endeavoring to follow the TCM where the APN was appropriately the team leader. Finally, lack of face-to-face with hospital staff resulted in imperfect communication. Conceivably, a community clinic could implement a TCM program but the structure and process would have to be better planned and supported.

Research Question Two

Will implementation of the transitional care model be financially rational to provide sustainability of the program?

Financial sustainability is essential for any business. In health care, a balance between providing optimum patient care and receiving adequate compensation is especially challenging. Medicare reimbursement is non-negotiable and APNs are subject to a 15% reduction in reimbursement. In any healthcare venue, providers are often faced with complicated and time-consuming patients and comparably low reimbursement. Sustainability requires the provider provide efficient, yet effective care and document and bill meticulously considering every reimbursable intervention.

It was initially difficult to obtain the billing and reimbursement information related to patients referred through CMC. The practice was experiencing some turnover in billing personnel so there were delays in both billing and reimbursement. At the time of this writing, actual reimbursement for any patients seen by the project coordinator had yet to be received. The CMC practice manager (Tim Morgan) was enormously helpful in

showing the project coordinator how to access the practice management information including bills submitted. Additionally, the project coordinator researched standard Medicare CPT codes for new and established home visits and transitional care (see Table 1).

Table 1

Home Visit Current Procedural Terminology Codes and Reimbursement

Patient	Description	Amount Reimbursed
New		
99341	Low severity problem, 20 minutes	\$55.80
99342	Moderate severity problem, 30 minutes	\$81.00
99343	Moderate to high severity problem, 45 minutes	\$132.84
99344	High severity problem, 60 minutes	\$186.12
99245	Patient unstable or significant new problem requiring immediate physician attention, 75 minutes	\$226.08
Established		
93347	Self-limited or minor problem, 15 minutes	\$56.16
99348	Low to moderate problem, 25 minutes	\$85.68
99349	Moderate to high problem, 40 minutes	\$131.04
99350	Patient unstable or significant new problem requiring immediate physician attention, 60 minutes	\$182.16

Section 3025 of the Affordable Care Act established the Hospital Readmission Reduction Program; as part of that program, CMS (2017) established two new reimbursable CPT codes aimed at providers undertaking transitional care.

Transitional Care Management Services

- The services are required during the beneficiary's transition to the community setting following particular kinds of discharges

- The health care professional accepts care of the beneficiary post-discharge from the facility setting without a gap
- The health care professional takes responsibility for the beneficiary's care
- The beneficiary has medical and/or psychosocial problems that require moderate or high complexity medical decision making
- The 30-day TCM period begins on the date the beneficiary is discharged from the inpatient hospital setting and continues for the next 29 days.
(CMS, 2016b, para. 2)

**Transitional Care Management Services to be Provided
by the Physician or Non-Physician Provider**

- Obtain and review discharge information (for example, discharge summary or continuity of care documents)
- Review need for or follow-up on pending diagnostic tests and treatments. Interact with other health care professionals who will assume or reassume care of the beneficiary's system-specific problems
- Provide education to the beneficiary, family, guardian, and/or caregiver
- Establish or re-establish referrals and arrange for needed community resources
- Assist in scheduling required follow-up with community providers and services. (CMS, 2016b, para. 6)

The CMS (2018a) allows what they term *non-physician providers (NPPs)* to perform transitional care subject to their state practice laws and qualifications. Non-physician providers include nurse practitioners, certified nurse midwives, clinical nurse

specialists, and physician's assistants. These NPPs are subject to CMS rules regarding reimbursement of non-physicians.

Transitional care code 99495 might be billed if the patient requires moderate clinical decision making and the provider performs a face-to-face visit within 14 days of hospital discharge (CMS, 2018b). The CMS (2018b) reimburses \$167.04 for this service. Transitional care code 99496 might be billed if the patient requires high complexity medical decision making and the provider performs a face-to-face visit within seven days of discharge (CMS, 2018b). This code is reimbursed at \$236.52. All of the aforementioned patient oversight services must be performed as part of transitional care. Some follow-up care might be delegated to clinical staff under the supervision of the physician. Additionally, the face-to-face visit is a portion of transitional care and might not be billed separately; however, subsequent visits within the 30-day period after the face-to-face visit might be billed separately (CMS, 2018b).

This seemed to represent a considerable amount of care responsibility for a modest amount of reimbursement. Additionally, unless the physician was in the home with the APN, the visit must be billed under the APNs national provider identification (NPI) number where it is reimbursed at 85% of the physician rate (CMS, n.d.). Table 2 provides a conservative estimate of time spent by the project coordinator performing transitional care for the five core patients.

Table 2

Time Spent on Care by Project Coordinator

Patient	Time Spent	Number of Visits Billed
1	35 hours	3
2	15 hours	1
3	14 hours	3
4	11 hours	3
5	9 hours	2
Total	84 hours	
Mean	16.8	

If the high complexity transitional care code was billed for each patient, plus three additional moderate-to-high complexity visits, and four low-to-moderate visits were billed, the total reimbursement would average \$22.83 per hour. Additionally, consider patient five was found to have non-contracted insurance following his visits so reimbursement would be zero. These numbers were calculated using the physician reimbursement rate. Eighty-five percent would be \$19.41 per hour.

As a disclaimer, the project coordinator did not consider economy of time or efficiency of care during the project. She just provided care needed to keep patients stable, out of the hospital, and comfortable. She likely spent more time than necessary in some instances just to develop rapport with the patient and family. However, for sustainability of a TCP, time spent on care in relation to reimbursement would have to be considered and some portions of the TCP delegated to other team members. Every

healthcare provider deserves to earn a living wage for a program to be sustainable. On a final note: It costs CMS (2018b) approximately \$15,000 for one hospital visit. If a transitional care provider is able to prevent a readmission, perhaps that provider should be reimbursed more than \$236.52.

Research Question Three

What themes emerge explicating the phenomena and experiences affecting rehospitalization of older adults?

Themes derived from this project helped explicate experiences and interventions that increased and decreased risk of readmission. Some corroborated risk factors and components within the TCM while some revealed new insights. Some themes increased risk of readmission while some decreased risk. As previously stated, patients referred from the home medical group were not included in quantitative analysis since they were not managed according to the TCM but their experiences and phenomena added to qualitative themes identified so accordingly were included in this qualitative analysis. To begin to answer this question, summaries describing each patient are provided in the following paragraphs.

Patient Descriptions by Pseudonym

Elaine is a 69-year-old female retired hairdresser hospitalized four times in the past two months. Her current medical problems include coronary artery disease (CAD) with recent myocardial infarction resulting in systolic heart failure (HF) with ejection fraction (EF) 35% and atrial fibrillation (AF), chronic obstructive pulmonary disease (COPD), Type 2 diabetes mellitus (DM), chronic kidney disease (CKD), chronic pain, opioid dependence (prescribed), chronic sinusitis, multiple environmental and drug allergies, and right leg lymphedema following an injury. She lives with her

caregiver/significant other (SO) in Section 8 housing. She receives less than \$900 monthly in Social Security and \$45 worth of food stamps monthly after paying her subsidized rent.

Joseph is a 72-year-old male who recently moved from California with his wife. Shortly after his move, he was diagnosed with Stage IV pancreatic cancer deemed inoperable by a consulting general surgeon. He started chemotherapy with a local oncologist but after two rounds of chemotherapy, he fell at home and fractured his nose. In the hospital, he was found to have a bleeding duodenal ulcer and esophageal varices that were banded. He required transfusions. After being discharged to home, he required re-hospitalization for significant ascites attributed to a pancreatic mass encircling the mesenteric and portal vein. This re-hospitalization was not available in the medical records but was reported by his family. One month of rehabilitation was recommended upon discharge but declined by the patient. He lives in an upscale home in suburban Las Vegas with his wife. He has declined assisted living or additional in-home care recommended by the home health social worker. Various family members take turns staying with him and his wife and performing household chores. Other medical problems include hyperlipidemia and depression/anxiety.

Clarence is a 65-year-old male recently discharged following a femoral-popliteal bypass for peripheral arterial vascular disease. Prior to revascularization, he had a non-healing arterial ulcer on his right foot for a year requiring several hospitalizations. He has a past medical history of CAD and myocardial infarction with stent placement, insulin-dependent Type 2 DM, chronic back pain, opioid dependence (prescribed), and generalized anxiety. He lives with his sister who is his caregiver in Section 8 housing.

He was initially prescribed home care but was dropped by the home health company because he has non-contracted insurance. He has been wheelchair-bound since surgery. His foot ulcer is healing gradually following his surgery. He smoked for many years but quit immediately following his surgery. His sister has squamous cell lung cancer but remains able-bodied at present.

Delilah is a 59-year-old female with a history of cerebral palsy and has been wheelchair bound for the past 20 years. She was diagnosed several months ago with a bladder sarcoma deemed inoperable and non-treatable. She required bilateral nephrostomy tubes for urinary obstruction that remain in place; she has been hospitalized multiple times for complicated recurrent urinary tract infection. She has chronic kidney disease with an estimated glomerular filtration rate (eGFR) of 23, hypertension, hyperlipidemia, and Type 2 DM. She is morbidly obese and is now bed-bound. She was advised to seek tertiary care for her sarcoma but her insurance declined this. The patient lives in Section 8 housing with her SO of many years who performs all of her care. She has home health care and a registered nurse visits weekly but she declined a nursing assistant as she and her SO prefer him to do her personal hygiene. She has severe right-sided abdominal pain presumably from her cancer and as a result is opioid dependent.

Sarah is a 71-year-old female who was hospitalized for lumbar spine surgery (lumbar laminectomy L2-S1 and L1-S5 with sacral segmental instrumentation) to correct stenosis causing chronic urinary incontinence and chronic pain and weakness. Her surgery was complicated by urosepsis, septic shock, hypotension, acute systolic HF with EF 35% (during her hypotensive episode), anemia requiring blood transfusion, AF, and acute respiratory failure. She recovered from the above and was transferred to a

rehabilitation facility where she remained for a month. Her past medical/surgical history included rheumatoid arthritis, chronic pain with opioid dependence, knee arthroplasty, neurostimulator implantation, fibromyalgia, hyperlipidemia, hypertension, and chronic urinary incontinence. She lives alone in an upscale home and has a friend staying with her to assist with meal preparation, housework, and other household chores and errands. She is receiving home health care including a registered nurse, physical therapy, and a nursing assistant to help with personal care.

Patients (by Pseudonym) from Home Care Medical Group

Virgil is an 87-year-old male who has had chronic care management by the home medical group since January 2018. He was recently hospitalized for urosepsis that made him eligible for transitional care. His past medical history included respiratory failure, a suprapubic catheter, multiple and frequent urinary tract infections, CAD, back surgery for spinal stenosis, tremor, cognitive decline, generalized debility, severe high frequency hearing loss, and sacral pressure ulcer. He is wheelchair bound but able to operate his electric scooter. He lives with his wife and son and has home health assistance as well as additional caregivers eight hours daily. He has been hospitalized three times during the past eight months.

Anthony is a 74-year-old male recently hospitalized for aspiration pneumonia after vomiting and aspirating. He has been bed-bound and hospitalized several times over the past few years. His past medical history included a cerebrovascular accident (CVA) five years ago, vascular dementia with delirium, and seizure disorder. He suffered permanent disability following his CVA and is bedbound and fed via a percutaneous gastrostomy tube. He is cared for at home by his wife who performs all

physical care and administers tube feedings. He has been managed by the home medical group for chronic homebound care since 2015.

All patients had functional deficits, four or more had active health conditions, all had six or more prescribed medications, and two or more had had hospitalizations within the past six months (see Table 3). Risk scores ranged from a low of 4 to a high of 8 with a mean of 6.14. A score of two or higher qualified a patient as higher risk for rehospitalization so all met the criteria.

Table 3

Patient Scores on Transitional Care Model Risk Assessment

IV 80	Functional Deficits	Active Behavioral/ Psych issue	≥ 4 Health Conditions	≥ 6 Prescribed Medications	≥ 2 Hospitalizations 6 months	Hospitalization Within 30 Days	Inadequate Social Support	Low Health Literacy	History of Non- Adherence
	X	X	X	X	X	X		X	X
	X	X	X	X	X	X		X	X
	X		X	X	X				
	X		X	X	X				X
	X		X	X	X				X
X	X	X	X	X	X	X			
	X	X	X	X	X			X	

Themes Identified

Social Factors

Social factors were not identified as a risk within the TCM risk assessment model but were prevalent in this project and corroborated by the literature (Hu et al., 2014).

Social factors included low socioeconomic status, lack of financial resources, inadequate transportation to obtain medication and medical services, and inability to afford healthy foods. Including a detailed social history was important in identifying patients with social risk factors. One clue to lower socioeconomic status was housing subsidies. Three patients in the study lived in Section 8 housing, a government subsidy program for individuals who are elderly or disabled (U.S. Department of Housing and Urban Development [HUD], n.d.). The federal government subsidizes housing for those earning less than 50% of the median income of the community where they reside. The qualifying individual pays 30% of the rent with the federal government paying the remaining 70%.

The following vignettes illustrate social factors contributing to risk of readmission.

Elaine was fortunate to have an attentive cardiologist treating her HF and an orthopedist managing her chronic pain. However, she was having transmission problems with her car and did not have the funds to have it repaired. Public transportation in Las Vegas is scarce and temperatures in the summer exceed 110 degrees. Elaine, short of breath with exertion and fragile following her recent hospital stay, had no source of transportation to her medical appointments.

Clarence was unable to bear weight on his right foot due to his healing wound and needed a surgical shoe. He and his sister had no funds to purchase one and ordering one through durable medical equipment would take weeks. Additionally, there was no medical supply store in close proximity to Clarence's home and the household had no car. His sister called the project coordinator in desperation and asked she could obtain a surgical shoe and bring it over so he could attend his scheduled primary care doctor appointment. She offered to pay the project coordinator the following week.

In both cases, the project coordinator resolved the immediate problem. In the former, she transported Elaine to all of her medical appointments until she could afford to get her car repaired. Home health personnel are not allowed to transport patients but this was a real problem, interfering with follow-up care and outcomes. In the latter case, the project coordinator obtained a surgical shoe from a medical supply store and brought it to Clarence. These were but two examples of social issues affecting patient care and potential outcomes and readmissions. Additionally, they were simple to resolve.

Inability to Obtain Needed Treatments

This theme transcended socioeconomic status and was multifaceted. Most physicians do not provide after-hours access and even home care companies and home health companies are not consistently available on weekends. The inability to obtain needed treatments might include routine treatments or treatments for emergencies not necessitating emergency department care. One commonly encountered barrier to obtain needed treatments related to new laws aimed at the opioid epidemic. Many chronically ill older adults including several involved in this project routinely took opioid pain medication and saw pain management specialists. New opioid laws require a written and hand-signed prescription for Schedule II controlled substances that include hydrocodone and oxycodone. Nevada limits prescription length to 30 days (U.S. Department of Justice, n.d.). Pharmacies receive limited supplies of opioid medications so they might not be able to fill prescriptions. Not all difficulties obtaining treatment related to opioids. Requirements for prior authorization, slowly-moving and bureaucratic systems, and other issues were commonly involved. The following vignettes illustrate various barriers.

Delilah was in severe pain from her cancer and unable to transfer to a wheelchair for transport to her oncologist's office. Her oncologist agreed to write one more prescription for 30 days of her opioids but after that he required an office visit. The home health nurse, project coordinator, and SO all agreed the only obvious solution was ambulance transportation to the hospital to obtain more pain medication.

Sarah was discharged from rehabilitation with seven days of her pain medications. She was unable to schedule an appointment with her orthopedic surgeon within seven days. In fact, the first available appointment for her was in one month. Fortunately, her surgeon agreed to write her a pain medicine prescription to last until her appointment, which her friend was able to pick up. Unfortunately, her appointment was rescheduled at the last minute for one week later, her surgeon was out of town and unavailable, and she faced running out of pain medicine on the Saturday before her Monday appointment. Her calls to her surgeon's office were not returned. She was rationing her pain medicine and described her pain as severe. Sarah had a pain contract with this surgeon that precluded her from receiving prescriptions from other providers. She began talking about calling 911 and going to the emergency department to obtain some pain relief.

The project coordinator transported Elaine to her pain management provider and then had to visit four pharmacies before finding one able to fill the prescription. It was 115 degrees in Las Vegas that day and an exhausting ordeal for a fragile heart failure patient.

The project coordinator was able to intervene for both Delilah and Sarah. She called Delilah's oncologist personally who was very empathetic to the patient's plight. He agreed to see her if she could be transported on a stretcher to his office. This offered an alternative to rehospitalization. After repeated calls to Sarah's surgeon's office, the project coordinator was able to speak to his assistant and convey the seriousness of denying Sarah pain medication for three days and the patient suffering involved. The project coordinator offered to write a short-term prescription to last the patient until Monday. Finally, the surgeon's assistant contacted the surgeon and he had an associate write a prescription for Sarah. She had no mechanism to pick it up before the office closed on Friday afternoon so the project coordinator drove to the surgeon's office, picked up the prescription, and took it to her pharmacy where her friend could pick it up

later in the evening. In the latter instance, the project coordinator kept trying different pharmacies until locating one able to fill the prescription. Pharmacies are not allowed to inform patients over the phone whether a controlled substance is available so face-to-face visits to the pharmacy are required. This illustrates the flip side of laws endeavoring to limit opioid use. Additional vignettes illustrate obstacles to obtaining medical supplies:

Joseph suffered from severe generalized weakness and required a wheelchair to attend physician appointments. The project coordinator inquired about ordering a wheelchair. It required a physical therapy recommendation followed by an order from the project coordinator co-signed by a physician. After several weeks and with no wheelchair and an imminent appointment, the patient paid out-of-pocket for a rented wheelchair.

Elaine required continuous oxygen therapy but was confined to using a large portable oxygen tank she was unable to push. Additionally, the continuous flow of oxygen dried her nose and complicated her sinus issues. Her cardiologist ordered a portable oxygen concentrator. It took several weeks of the cardiology office revising orders and finally a patient visit to the durable medical equipment office before she was able to obtain an oxygen concentrator light enough to be carried on her shoulder and less drying to her nose.

Upon hospital discharge, Sarah was prescribed epoetin alpha (Procrit) to be self-injected three times weekly for treatment of her anemia. It took her a week to find a pharmacy carrying this specialty drug and it was dispensed in vials with no needles and syringes. The project coordinator brought some needles and syringes, administered the first injection, and taught the patient how to self-inject the medication. The first injection was two weeks following her discharge.

These patient experiences illustrate a lack of timely and seamless access to post discharge medications and medical supplies.

Collaborating

Collaborating with the care team was an important emergent theme and could involve something simple such as communicating a medication change or minor patient problem or as complex as notifying a specialist of a life-threatening problem.

Collaboration was a factor identified as a component of the TCM and decreased risk of

rehospitalization. The following vignette illustrates how collaboration played a role in one instance.

Elaine complained to the project coordinator about episodes of “going down.” It was unclear what she meant. The following day, the project coordinator transported Elaine to her cardiology appointment where he was going to discuss implantation of a loop cardiac monitor. The cardiologist informed the project coordinator that monitoring during the patient’s multigated acquisition (MUGA) scan showed episodes of non-sustained ventricular tachycardia. It became clear that the patient’s description of “going down” indicated syncope or presyncope. After communicating this to the cardiologist, he decided to forgo the loop monitor and place an automated implanted cardioverter defibrillator (AICD) pacemaker. This was potentially lifesaving to the patient who could have suffered a lethal arrhythmia.

Additionally, encrypted text messaging available between members of the home health team and the provider made it easy to communicate after each patient visit by any health team member.

Twenty-Four/Seven Availability of Advanced Practice Nurse Who Could Write Orders

Twenty-four/seven availability of a transitional care team member is a component of the TCM; however, the APN within that model does not write orders. The project coordinator found the 24/7 availability necessary in general but also found great importance in the ability to write orders. This was especially important during weekends and evenings when other providers were not available and patients had urgent medical issues. The following vignettes illustrate the importance of this theme in preventing potential readmissions.

When the project coordinator initially visited Sarah, she was complaining of urinary burning, chills, and low-grade fever. Her complicated hospitalization included urosepsis and septic shock and she was not taking her ordered ciprofloxacin because it upset her stomach. It was seven o’clock in the evening and this patient was at risk of suffering a relapse of her urosepsis. The project coordinator changed the medication to levofloxacin once daily and advised Sarah

to take her antiemetic and eat prior to the dose. She tolerated the levofloxacin and by morning, her dysuria and fever were gone.

When visiting Anthony, the project coordinator discovered his tinea corporis around his gastrostomy tube had worsened and his wife had run out of his anti-fungal cream and had no refills. The project coordinator called in more refills to the patient's pharmacy.

Elaine had debilitating allergies and routinely took several oral medications and nasal sprays. She was chronically short of breath from her HF and COPD and her allergies only exacerbated this. Her current primary physician declined to reorder any of her medications until she had an office visit, which was not available for several weeks. Upon the project coordinator's first home visit, she reordered all Elaine's allergy medications with refills for a year. This was a priority for the patient and an uncomplicated order.

Virgil's son was worried his father was not obtaining adequate nutrition. He had been eating with tube feed supplements but had failed a swallowing evaluation in the hospital and was now allowed nothing by mouth. His tube feeding amounts had not been adjusted. The project coordinator calculated Virgil's daily tube feeding requirements and ordered more product and a dietitian consult.

Clarence was running out of a number of his maintenance medications and his scheduled appointment with his primary care physician was four weeks away. The project coordinator reordered his dwindling supply of medications including insulin for his diabetes so he would not run out of medications and risk relapse.

Delilah was having nausea and vomiting and had been prescribed a lower than adequate dose of her antiemetic ondansetron (Zofran). After checking for renal dosing considerations, the project coordinator called in a higher dose for her and this alleviated her nausea.

Joseph had not had laboratory tests drawn since leaving the hospital despite recent visits to both his oncologist and his new primary care physician and was experiencing severe debilitating weakness. The project coordinator ordered a complete metabolic profile and complete blood count to determine if a metabolic cause existed for his weakness. The results also proved invaluable when Joseph sought care from a tertiary oncologist in California.

Every patient in the study required orders from the project coordinator. One value of having an NP performing transitional care is the ability to write orders. The project coordinator was careful to consult appropriately with specialists when indicated. None of the patient's physicians were upset by the orders written by the project coordinator; rather, they were thankful these items had been handled for the patient's benefit.

Advanced Planning and End-of-Life Issues

Two patients had cancer deemed incurable. Neither wanted to stop treatment or consult hospice. Frequent hospitalizations are common at end of life. Donze, Lipsitz, and Schnipper (2014) studied over 10,000 consecutive discharges at a tertiary hospital in Boston and found 15% of all avoidable admissions resulted from end-of-life issues. They recommended initiation of advance care planning and referral to palliative care to improve end-of-life care and avoid unnecessary and likely futile readmissions. The following patient vignettes illustrate this concept.

Delilah had terminal bladder cancer and was in intractable pain. She desperately wanted to stay at home. The project coordinator originally planned to transport her by medical ambulance to her oncologist to obtain more pain medication as she declined to even discuss hospice. However, she became unable to swallow her pain medication, which made this intervention futile. Her home health nurse and project coordinator discussed the appropriateness of palliative care and the home health nurse contacted her oncologist who ordered the hospice consult. The patient and her SO agreed to receive hospice care and she was changed to intravenous morphine. Delilah died at home one week later.

Joseph has inoperable pancreatic cancer and his oncologist recommended stopping chemotherapy and initiating palliative care. Joseph was recently diagnosed, is only 72-years-old, and is unwilling to stop treatment. In a family meeting, the project coordinator emphasized the primacy of patient self-determination while discussing options. Joseph decided to seek a second oncology opinion with a pancreatic cancer specialist, which the project coordinator arranged. The outcome is still unknown.

Virgil is 88-years-old, wheelchair bound, and endures frequent hospitalizations due to urosepsis and other serious health conditions. His son struggles with obvious end-of-life issues. Virgil is not capable of making his own health decisions and withdrawing existing tube feedings is a tough decision for the son as he believes Virgil has some quality of life when alert and home with his family. His primary home physician has initiated end-of-life advanced care planning, which was reinforced by the project coordinator when she visited, mainly in terms of listening to and empathizing with the patient's son.

Addressing end-of-life advanced planning was not one of the components included in the TCM but is clearly an intervention in some patients to avoid unnecessary readmissions. The Donze et al. (2014) study was performed by hospitalists and their recommendations were to consult palliative care prior to discharge but this intervention should be pursued as indicated to avoid unnecessary futile readmissions and prolonged end-of-life suffering.

Causal Model

A causal model was created incorporating all components from within the TCM and themes identified within this project including two themes increasing risk of rehospitalization and two additional components potentially reducing risk of rehospitalization (see Figure 3). The project coordinator incorporated all aspects of the TCM evidence-based guidelines except those mentioned in deviations such as not beginning the patient-APN relationship in the hospital. Additional influential factors discovered during the project enriched the already evidence-based TCM and perhaps tailored it to the Las Vegas community, particularly issues with transportation.

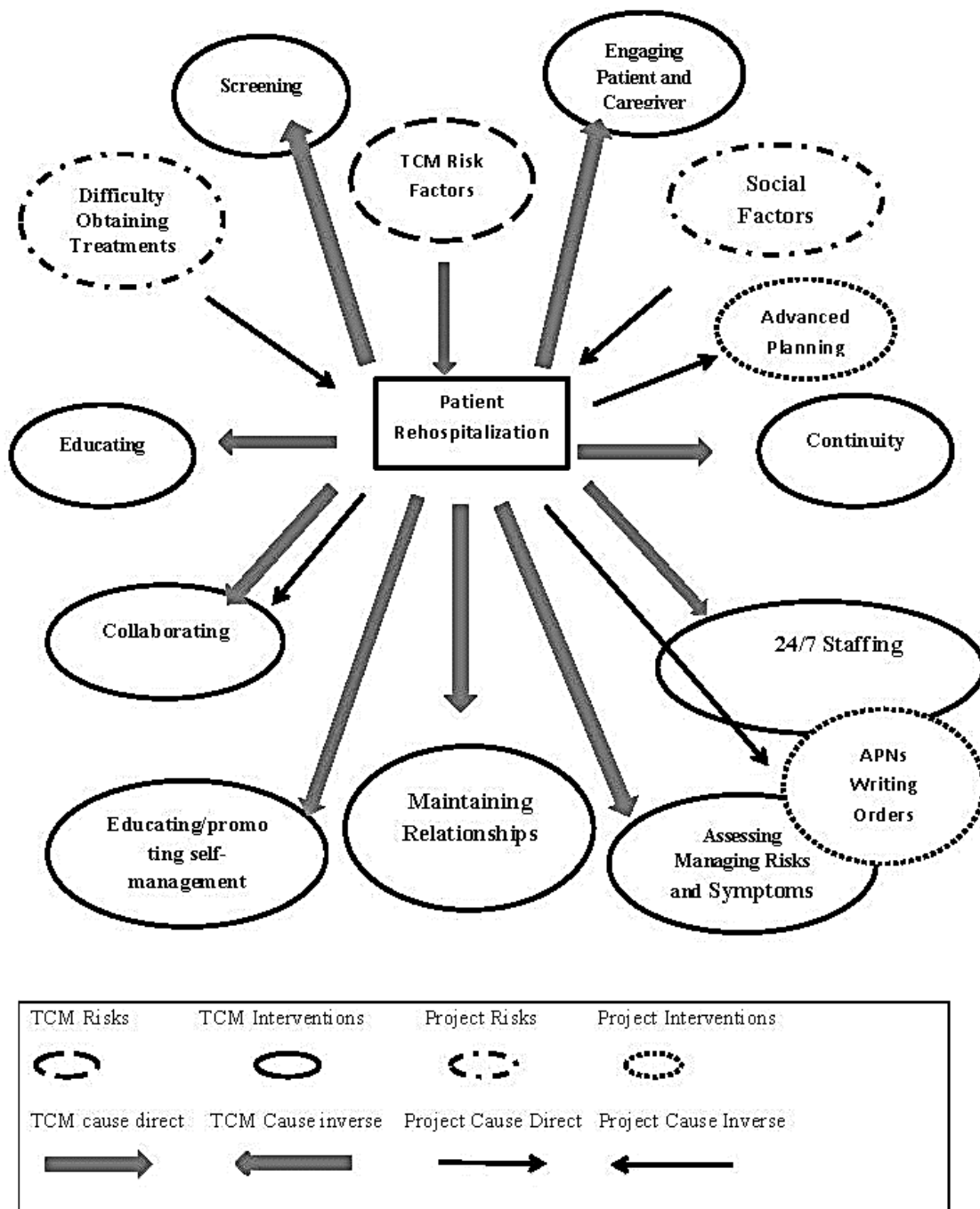


Figure 3. Causal network including project themes and transitional care model risks and components.

CHAPTER V

DISCUSSION

Sample Characteristics

The sample for this project was a convenience sample including patients referred from home health agencies to one of two healthcare practices. Five of the seven patients were insured by traditional Medicare. One was insured by Medicaid and one was insured by a commercial Medicare replacement. Six of the seven patients were 65-years-old or older. One patient was 59-years old but was included because she needed the transitional care and the project coordinator did not want to refuse to see her. She was one of the highest risk patients in the project. Patient ages ranged from 59 to 88. Four patients were male and three were female. Their socioeconomic status varied significantly. Three patients lived in poverty while the remaining four had adequate incomes. One patient was African American and the remainder were Caucasian. All patients had been recently discharged from a hospital or rehabilitation facility and resided in the greater Las Vegas area.

Setting Characteristics

The bulk of the project was conducted in patients' homes. Ancillary settings included the offices of both healthcare offices for meetings, patients' physician offices, and pharmacies when patients required transport or the project coordinator needed to pick up a patient prescription. Another ancillary setting was the office of the primary referring

home health agency for staff meetings and orientation. The project coordinator had home access to all practice EHRs so documentation of patient visits was conducted at the project coordinator's home.

Major Findings

The project coordinator gained a preliminary understanding of what components and risks contributed to patient rehospitalization including several new themes not identified in the TCM. Social issues such as lack of transportation to medical visits were a significant barrier to obtaining care needed to prevent unnecessary hospitalizations. Social factors were not included as a risk within the TCM model but emerged as significant in the project and were identified within the transitional care literature. Advanced planning for end-of-life care emerged as a significant need to prevent frequent futile hospital visits at the end of life. This was additionally corroborated in the literature. Finally, obstacles to obtaining needed medication and equipment were discovered as a risk-transcending socioeconomic status.

Additionally, the project coordinator gained an enhanced understanding of what components are necessary to implement a transitional care program, particularly in this community. Judging from successes and challenges, transitional care requires at least two APNs, a physician to order home care, a scheduler, and a biller especially savvy in billing CMS for transitional care and other reimbursable services.

Strengths and Limitations of the Project

Strengths

One identified strength of the project was the immersion of the project coordinator in the home health environment and support from the two medical practices

and the home health agency. Communication and collaboration were facilitated by access to EHRs and Health Insurance Portability and Accountability Act (HIPAA)-compliant text messaging. Another major strength of the project was the opportunity for the project coordinator to interact intimately with project participants. Involvement in patients' lives and the opportunity to personally intervene to help them gave the project coordinator an authentic and vivid understanding of the transitional care process.

Limitations

Limitations of the study included the small number of patients available to sample. Additionally, being restricted to patients referred by home health agencies excluded patients in need of transitional care who were not home-bound. This factor also likely increased the acuity of the sample obtained and could have skewed any quantitative analysis had any patients been readmitted. Patients qualifying for home health services typically have a higher rate of 30-day hospital readmissions although rates vary considerably (CMS, 2018a).

Another limitation of the study was the lack of an established transitional care team within which the project coordinator could work. Of course, part of the rationale for this project was to pilot non-existing transitional care services within this community using an evidence-based model. A well-developed network does not yet exist. The closest program discovered with an existing stable network was the physician-owned home medical practice. This program was not built around an evidence-based model and the project coordinator did not have enough interaction with this practice to evaluate its philosophy or its success in preventing rehospitalization. Evident was the physician owner's involvement with the practice and efforts to interact with the home health team.

She personally knew every patient seen within the practice and held care conferences each week with the home health RNs. Interaction with this practice became available late in the program's data collection period so there was no long opportunity to become more familiar with specifics.

Overall lack of communication and coordination specific to transitional care within the project coordinator's primary sponsoring medical practice created unanswered questions about sustainability. For example, the practice never billed for transitional care throughout the project. This stemmed from billing service instability and lack of billing integration into the actual project. This limitation did serve to familiarize the project coordinator with ineffective practices in development of a transitional care program.

Finally, lack of prior experience with home health care and available community agencies might have caused more work for the project coordinator. Community agencies in Las Vegas are scarce and many non-profits come and go as grants are not renewed. Efforts to catalog community agencies were difficult. The home health social worker was not often available for consultation. A more detailed understanding of community services would have been helpful.

Issues

One initial issue was the role difference in transitional care APNs and APNs consulted by home health agencies. The project coordinator was chastised more than once for performing a service usually performed by a different team member. The project coordinator was able to resolve this issue by showing respect to the RN case managers and recognizing them for their important role. Still, limitation on roles and

prohibiting cross-responsibilities seemed overly bureaucratic in a healthcare system with already scarce resources.

Transitional care is described as time limited to the 30 days following discharge. As home health is certified for 60-day intervals, it was not possible for the project coordinator to stop being available to the home health team after 30 days. In fact, at the time of this writing, the project coordinator was still following one patient who was recertified for home health until October 9, 2018.

Collaborating with patients' medical providers was problematic. The project coordinator made many unreturned phone calls to physicians. Only one physician out of many actually returned the project coordinator's call. The solution, when interaction was crucial, was to attend a visit with the patient and speak to the provider face-to-face. This was very effective but also quite time consuming.

Another issue experienced by the program coordinator was the lack of accessibility to her APN colleague. A business owner who balances practice, teaching, and outreach, Dr. Lamprecht was not as available as the project coordinator desired. Often emails, texts, and phone calls went unanswered. In hindsight, this was likely attributable to undiscussed differences in expectations of the project coordinator and her colleague. Still, it made processes difficult at times. On the flip side, the project coordinator became creative in finding answers and developing solutions.

The patient encounters all went smoothly and no friction developed between the patients and the project coordinator. All patients were grateful for the extra care and advocacy. One patient became quite attached and began to call the project coordinator several times weekly for minor questions. It was important for the project coordinator to

assist her in becoming more autonomous and self-managing. This was accomplished by the end of the project.

Practice Recommendations

In our fragmented and often ineffective health care system, transitional care is clearly one needed program. It should fit into a network of other social programs by providing a safety-net for patients unable to manage on their own. Every patient provided transitional care by the project coordinator could have suffered bad outcomes including rehospitalization if interventions had not been implemented.

Price (2017) provided some practical advice for implementing a transitional care management program in a small practice. He recommended identifying a practice champion and delineating needed roles and responsibilities of existing office staff. He also recommended starting with patients at highest risk of readmission. He reiterated CMS requirements for billing including the date the Medicare recipient was discharged, the date of the initial phone contact, the date of the face-to-face visit, and the complexity of medical decision making (Price, 2017.). Notably, he gave no details of patient risk assessment or management outside of the face-to-face visit. In this project coordinator's experience, continuous availability, coordination, and more frequent visits or calls than that initial face-to-face visit are necessary for program success. Still, this is a suggestion as to how a primary care practice could manage their own patients who require hospitalization and increase patient retention, outcomes, and patient satisfaction.

Another logical strategy would be to embed a transitional care management program within an integrated hospital/outpatient care practice. One such program was introduced by a large integrated health system in California. This pilot program focused

on 50 patients deemed high risk-high cost due to chronic and multiple medical issues. The transitional care management team included physicians, nurses, specialists, health educators, and pharmacists (Baldonado, Hawk, & Nelson, 2017). The researchers compared hospitalizations pre and post intervention. Before the transitional care intervention, 33 of 50 patients had been admitted within the prior six months. Following the intervention, only 17 of the same 50 patients were hospitalized within the ensuing six months. The program saved considerable money and improved patient outcomes. The researchers give an example of one patient who had been hospitalized five times prior to the intervention at a cost of \$217,355.75 in the six months preceding the intervention (Baldonado et al., 2017). Following the transitional care intervention, the same patient required no hospitalizations. This dramatic cost savings makes one wonder why this practice is not the norm.

Naylor and Sochalski (2010) continued work to integrate the TCM into mainstream healthcare. A TCM translation study in collaboration with Aetna Insurance substantiated previously discovered cost savings when employing the TCM. Subjects receiving the TCM intervention showed an annual net cost savings per patient of \$2,170 per member (Naylor & Sochalski, 2010). Resultantly Aetna recognized the TCM as a high value proposition and recommended further expansion among public and private insurers (Naylor & Sochalski, 2010). To the project coordinator, it was unfathomable why transitional care is not utilized more widely, especially by insurers who stand to gain the most financially. Naylor and Sochalski elaborated on this:

The successes in scaling the TCM into an insurance environment argue favorably for its broader use among other private purchasers, insurers, and public payers.

The model's capacity to improve quality and reduce costs, specifically through the reduction of hospital readmissions, positions it as a compelling solution for the payer community. (p. 7)

Rani Khetarpal (n.d.), the Chief Executive Officer of Global Transitional Care, articulated the barriers to the individual provider desiring to provide transitional care. She spoke to the global reimbursement averaging \$230 for 30 days of patient management according to CMS guidelines. The cost to a provider to render CMS-mandated transitional care for such low reimbursement is not cost-effective according to Khetarpal (n.d.). Global Transitional Care (2018) utilizes the TCM and is a third-party payer group certified by Medicare to provide transitional care. Each of their APN/RN teams manages 15-20 patients at a time. They currently provide care in California but are poised to expand to all 50 states (Khetarpal, n.d.). This start-up company has yet to prove its sustainability but has started out on a positive trajectory to helping bring evidence-based transitional care into the mainstream.

Change is slow, especially in health care mired in bureaucracy and hampered by fragmentation. Even in the two years this project coordinator has been developing and implementing this project, transitional care has become somewhat of a household name. Not all transitional care is evidence-based and results are variable; however, tenacious individuals such as Mary Naylor continue to push the movement forward.

The Affordable Care Act's Hospital Admission Reduction Program (Graf, 2018) has provided an impetus to hospitals to reduce their readmission rates in the form of financial penalties for excessive readmissions. The value of home health agencies (HHAs) in transitional care has long been recognized but more recently CMS (2018a) has

taken closer notice of readmission rates among patients receiving home health. In 2010, readmission rates of patients receiving home health averaged 29% (CMS, 2018a).

However, a wide variation has been attributable by CMS to differences in care quality.

The CMS has determined that an incentive program for HHAs would be consistent with HARP, which has led to lower readmission rates since implementation by holding hospitals accountable for excessive readmissions through reduced reimbursement. The incentive program for HHAs is scheduled to commence January 1, 2020.

Interestingly, a discussion of these upcoming regulatory changes occurred at the last staff meeting attended by the project coordinator. The owner of the home health agency has been preparing his team well-ahead of regulation implementations. He clearly has high standards for his company and team and wisely shares the responsibility for company success by his transparency and engagement of team members in meeting goals. At this meeting, he presented each RN case manager with their individual patient readmission rates and asked those with low numbers to share their strategies for success. Not surprisingly, strategies echoed themes within other transitional care management programs including the TCM. Successful strategies verbalized by the RN home health case managers included (a) listening to one's patient, (b) instructing the patient to call the RN instead of 911 for non-life-threatening problems (and being available), and (c) developing relationships with patients.

As transitional care becomes a household word among healthcare providers, more programs will be implemented. More successes will drive more interest and buy-in. Hopefully, a critical mass will be reached where every hospital patient is screened for transitional care needs and referrals become an expected part of usual care.

The afore-discussed practice recommendations all address transitional care in the current healthcare environment. Taking transitional care to the next level involves more legislative changes--some small and some sweeping. One simple legislative change would be for CMS to allow NPs to certify patients for home health. About 10 percent of Medicare recipients require home health services each year. The Centers for Medicare and Medicaid Services (2018a) require a face-to-face visit to verify a patient's homebound status and need for home services. While this visit might be (and often is) done by a NP, CMS requires a physician to certify the patient for such services. This complicates and delays access to home services. If the patient's primary care provider or house call provider is a NP, they are required to seek a physician to sign the home health authorization. Physicians often charge for this service and might require the patient to be seen in the office, creating an extra unnecessary visit. Homebound patients might need to travel to a physician visit by ambulance, further increasing costs (Brassard, 2012).

Nurse practitioners have expertise in assessing the need for home services. Requiring a physician to certify these patients for home care creates unnecessary delays, potentially jeopardizing patient health and outcomes and incurring additional expenses. The American Association of Nurse Practitioners (2018) has already identified action needed to improve Medicare patient access to home services. Legislation should be introduced and ultimately passed allowing NPs to certify patient eligibility for home services.

Amending CMS regulations to allow NPs to certify patient eligibility for home services seems like a simple goal but legislation has already been introduced twice, most recently in 2017. Chris Collins, a U.S. Representative from New York introduced House

Resolution 1825: Home Health Care Planning Improvement Act of 2017; the bill proposes to “amend title XVIII of the Social Security Act to ensure more timely access to home health services for Medicare beneficiaries under the Medicare program, and for other purposes” (para. 1). This bill has strong support and no opposition, is still in committee, and is unlikely to be passed during this congressional session. The current 115th Congress is scheduled to adjourn December 14, 2018 (U.S. Senate, 2017). Thus, it is unlikely House Resolution 1825 will navigate the process necessary to become law and will die in committee. In fact, Govtrack gives the bill a 2% chance of passing (House Resolution 1825, 2017).

More sweeping healthcare reform is overdue in the United States. The passage of the Affordable Care Act was a compromising beginning but universal health care is an end goal for many. The population in this study already had government-provided insurance but health care in general, including care of older adults, would benefit greatly from less fragmentation and more interconnectedness among all providers and entities. However, this is a subject for a whole other paper.

Alignment with Doctor of Nursing Practice Essentials

The American Association of Colleges of Nursing, along with the National Organization of Nurse Practitioners Faculties, agreed on criteria for a successful Doctor of Nursing Practice (DNP) project (Waldrop, Caruso, Fuchs, & Hypes, 2014). Foremost, the project must tackle a complex problem in the practice setting and use evidence to endeavor to improve this process (Waldrop et al., 2014). This DNP project certainly met the qualifications for a complex problem in the excessive readmissions of Medicare recipients. One could argue that most problems in health care qualify as “wicked

problems, those replete with social and institutional uncertainties, and for which only imperfect knowledge about their nature and solutions exists” (Mertens, 2018, p. 7).

Although transitional care has been studied for years, implementation in the community is still far from an established practice. This project utilized an evidence-based model to provide transitional care to actual patients in the Las Vegas community in an effort to improve practice. This program and project are further be addressed in relation to each DNP essential.

Doctor of Nursing Practice Essentials

Essential I: Scientific Underpinnings for Practice

Each educational program, beginning with the Bachelor of Science (BSN) in Nursing, followed by the Master of Science in Nursing, a Certificate in Nursing Education, and finally the Doctor of Nursing Practice added to the project coordinator’s foundation of knowledge. Practice as first a hospital RN, then critical care educator, nurse practitioner, BSN faculty, and finally a DNP student further strengthened that foundation and the project coordinator’s skill in applying the significant underpinnings of nursing and other sciences to practice. The DNP program at the University of Northern Colorado (UNC) perfectly expanded and strengthened knowledge related to all aspects of nursing and health care. Courses requiring research, critical thinking, and discussion of application to practice in epidemiology, translational research, healthcare finance, advanced nursing theory, leadership and health policy, and population-centered health all applied to this project. The project coordinator drew on all acquired knowledge to design, implement, and evaluate this project to enhance healthcare delivery to at-risk Medicare recipients discharged from hospital to home. The actions and outcomes have

been previously described. Practice approaches never before executed in this community were implemented and resulted in positive outcomes.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Again, the DNP program at UNC enhanced the project coordinator's expertise and skill in considering organizational issues, quality management, and consideration of the balance of productivity with quality of care. The project--Implementation of a Transitional Care Program to Reduce Readmissions in Medicare Recipients Discharged from Hospital to Home utilized all the project coordinator's abilities in systems leadership and imparted a confirmation of issues balancing cost-effectiveness with patient care delivery. Based on project findings, the project coordinator was considerably more knowledgeable regarding realistic transitional care designs and how transitional care programs could be sustainable in today's healthcare environment. She analyzed CMS reimbursements, billing practices, and made recommendations for program sustainability. Additionally, she became aware of needed changes to healthcare policy to enhance these programs.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

This DNP project provided the project coordinator with the privilege of applying knowledge in the scholarship of application. A well-researched, evidence-based practice transitional care model was applied to real-world practice. The practice environment was highly complex and challenged the project coordinator in applying all her knowledge and intrinsic beliefs regarding human caring and human needs as they intersected with other

human and nursing sciences. This project required an APN who could creatively assess patient conditions and think creatively to create an optimal plan of care. The project coordinator provided guidance to collaborating team members in implementing evidence-based practice.

Essential IV: Information Systems Technology and Patient Care Technology for the Improvement and Transformation of Health Care

The DNP program and execution of the project enhanced the project coordinator's already existent skills and knowledge of utilizing information systems technology resources to improve patient care, safety, and quality. Since the Health Information Technology for Economic and Clinical Enforcement Act was enacted as part of the American Recovery and Reinvestment Act of 2009 a plethora of health information systems and EHRs have been implemented. Utilizing a wide variety of health information systems and comparing them with established guidelines for meaningful use (Federal Register, 2010) has enlightened the project coordinator in selecting and analyzing systems containing essential components for meaningful use and clinical decision making. Interesting and valuable systems utilized in the home health environment and monitored by CMS were new to the project coordinator. The Outcome and Assessment Information Set is a comprehensive assessment performed by the home health nurse and utilized by CMS to compare home health agencies along with other patient data submitted to CMS (2018a). The CMS publishes Home Health Compare where any CMS-certified HHA is rated on a scale of one to five and assigned the rated number of stars. Home health agencies are rated on both process and outcome measures,

data are available online for prospective patients, and providers may evaluate an HHA's quality before selection.

Health information systems are only as good as the proficiency of those who select, analyze, program, and utilize them. This program and project have developed the project coordinator's proficiency in designing, selecting, evaluating, and providing leadership in healthcare systems and communication networks.

Essential V: Health Care Policy for Advocacy in Health Care

The project coordinator had prior experience in active participation in a professional organization to influence policy makers. She was involved in promoting legislation granting APNs in Nevada autonomous practice in 2013. She has participated in professional organizations in leadership and education roles throughout her nursing career. The DNP program, particularly the courses related to health policy and healthcare finance, further refined the project coordinator's ability to understand political processes and advocate in a leadership role for health policy advocating for nurses and consumers, thereby promoting social justice and ethics. Designing and implementing the DNP project gave the project coordinator an intimate view of gaps in healthcare policies and healthcare in need of revision.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

The DNP program and particularly executing the DNP project challenged the program coordinator to employ effective communication and collaboration skills in a multitude of varied situations and interactions. Stepping into a whole new environment

and interacting with multiple agencies, health professionals, and patients required the project coordinator to use diplomacy and leadership skills to ensure adequate application of evidence-based practices, good patient outcomes, and teamwork in caring for patients in a complex and changing environment. Varied leadership approaches determined by situations encountered were necessary. Ultimately, the project coordinator developed excellent rapport and collegiality among other team members and satisfied patients.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

Courses within the DNP program related to epidemiology and population health enhanced the project coordinator's ability to provide leadership in integrating evidence-based clinical prevention and population health initiatives. The project coordinator had prior experience as an NP directing a school-based health center and implementing health promotion among adolescents, children, and adults. In her tenure at the school-based health center, she successfully obtained grants and implemented an asthma management program for uninsured asthmatic children in Clark County Schools. This DNP project took the project coordinator into uncharted territories providing tertiary prevention to older adults with complex health conditions and with a multitude of socioeconomic and cultural differences. It was enlightening to promote optimal health in this population and allowed the project coordinator to synthesize concepts and develop interventions to address care gaps in this population, even expanding on an evidence-based care model.

Essential VIII: Advanced Nursing Practice

The project coordinator has had years of experience as an NP and had pre-existing experience and expertise in comprehensively assessing patients, designing and

customizing interventions, and incorporating science and evidence-based practice in clinical decision-making. Designing and executing the DNP project further refined the project coordinator's comprehensive practice competencies.

Enhance, Culmination, Practice, Implement, and Evaluate

Waldrop et al. (2014) used an acronym to summarize five criteria to be fulfilled by the final DNP project--EC as PIE, which represents the following five components: (a) enhance health outcomes, practice outcomes, or health care policy; (b) display a culmination of practice inquiry; (c) reflect engagement in partnerships; (d) translate or implement existing evidence into practice; and (e) evaluate health care, practice, or policy outcomes (p. 302).

This pilot project, which sought to implement the evidence-based practice TCM to provide transitional care to Medicare recipients in a community clinic, met all the criteria. The project enhanced transitional care practice outcomes by revealing risks encountered by patients and interventions aimed at decreasing risk. The project coordinator became an expert in transitional care as a result of the culmination of practice inquiry throughout the DNP program at UNC and engagement in real-world practice of providing transitional care in the community. She is poised to render expert advice in her DNP role to those seeking to implement transitional care. The project coordinator engaged in many partnerships during execution of the project and identified additional recommended partnerships for success in a transitional care endeavor. This project applied evidence from the transitional care model to practice in a community setting. The project served to evaluate the utility of application of the TCM to performing transitional care in a community setting and added to the knowledge specific to

transitional care in the Las Vegas community and perhaps elsewhere. Finally, the project coordinator evaluated costs, benefits, and outcomes of implementation of transitional care.

Recommendations For Future Exploration

Care transitions aimed at preventing avoidable hospital readmissions have been recommended by a multitude of multidisciplinary healthcare professionals. Transitional care is especially important for older adults and those with complex or multiple health conditions. The CMS (2018b) has developed basic criteria for transitional care and will reimburse providers specifically for performing transitional care. Despite years of research and proof of effectiveness, evidence-based transitional care has not yet been widely implemented. Further exploration of cost-effective best practices in varied settings still needs to be explored. The TCM is an evidence-based best practice model for implementation of effective transitional care and its components should be utilized when developing programs. Consideration of social issues such as transportation should be addressed. Advanced planning of patients at end of life should be undertaken when appropriate. The role of the NP who oversees transitional care should be flexible and the NP should practice to his/her full capacity including writing orders in addition to coordinating care. When possible, templates should be added to EHRs to include decision support for transitional care. All discharged patients should be evaluated for risk of unplanned readmission and those at risk should be referred for post-discharge transitional care. Existing transitional care programs, particularly those utilizing the TCM such as Global Transitional Care (2018), should be carefully evaluated and

followed. As this program expands, more useful implementation data should be forthcoming.

Dissemination of Project Results

The project coordinator plans to disseminate results of this pilot project. She has already reached out to the developers and researchers at the New Courtland Center for Transitions and Health at the University of Pennsylvania School of Nursing to discuss findings of the project. Additionally, the project coordinator plans to seek opportunities to present findings in a poster presentation and publish a journal article in the future. Finally, the project coordinator intends to contact key legislators regarding the importance of transitional care and the need to expand APN authority to certify patients for home health. One letter has already been written to a U.S. senator regarding the bill in Congress.

Conclusion

This project provided valuable insight into implementation of transitional care in the project coordinator's community of Las Vegas, Nevada. Additional factors, both risks and positive interventions to facilitate success, were identified. Breakdowns in essential components of transitional care such as inter-provider communication and collaboration were identified. Five patients received excellent transitional care and, as a result, had positive outcomes. This was a small number of subjects but in hindsight, it was a reasonable caseload for a solo APN in a three-month window. The project coordinator greatly expanded her knowledge of both home care and specifically transitional care from hospital to home. The experiences and discoveries in this pilot project, while not generalizable, served to enhance the body of knowledge related to the

experience of older adults discharged from hospital to home and how APNs, particularly those doctorally-prepared as DNPs, could contribute to their successful transition.

REFERENCES

- Alper, E., O'Malley, T. A., & Greenwald, J. (2016). *Hospital discharge and readmission*. Retrieved from <http://www.uptodate.com/contents/hospital-discharge-and-readmission>
- American Association of Nurse Practitioners. (2018). *Improve Medicare patients access to home services* (Issue Brief). Retrieved from <https://www.aanp.org/legislation-regulation/federal-legislation/issue-briefs>
- American Recovery and Reinvestment Act of 2009, 23 STAT. 115 (2009).
- America's Health Rankings. (2018). *Hospital readmissions*. Retrieved from https://www.americashealthrankings.org/explore/senior/measure/hospital_readmissions_sr/state/ALL
- Baldonado, A., Hawk, O., & Nelson, D. (2017). *Transitional care management in the outpatient setting*. Advance online publication. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5411719/>
- Bazely, P. (2018). *Integrating analysis in mixed methods research*. Los Angeles: Sage.
- Bergethon, K. E., Ju, C., Devore, A. D., Hardy, N.C., Fonarow, G.C., Yancy, C. W., ...Hernandez, A. F. (2016). Trends in 30-day readmission rates for patients hospitalized with heart failure: Findings from the GWTG-HF Registry. *Circulation Heart Failure*, 9(6).
doi:10.1161/CIRCULATIONHEARTFAILURE.115.002594

- Bixby, B., & Naylor, M. D. (2009). *The transitional care model (TCM): Hospital discharge screening criteria for high risk older adults*. Retrieved from <https://consultgeri.org/try-this/general-assessment/issue-26.pdf>
- Boccuti, C., & Casillas, G. (2017). *Aiming for fewer hospital U-turns: The Medicare hospital readmissions reduction program*. Retrieved from <http://www.kff.org/medicare/issue-brief/aiming-for-fewer-hospital-u-turns-the-medicare-hospital-readmission-reduction-program/>
- Brassard, A. (2012). Removing barriers to advanced practice registered nurse care: Home health and hospice services. *AARP Public Policy Institute Insight on the Issues*, 66, 1-10. Retrieved from https://www.aarp.org/content/dam/aarp/research/public_policy_institute/health/removing-barriers-advanced-practice-registered-nurse-home-health-hospice-insight-july-2012-AARP-ppi-health.pdf
- Care Transitions Program. (n.d.). *About*. Retrieved from <http://caretransitions.org/>
- Centers for Medicare and Medicaid Services. (n.d.). *Readmissions and deaths--Hospital*. Retrieved from <https://data.medicare.gov/Hospital-Compare/Data-Updates/bzsr-4my4>
- Centers for Medicare and Medicaid Services. (2014). *Evaluation of the community-based transitions program*. Retrieved from <https://innovation.cms.gov/Files/reports/CCTP-AnnualRpt1.pdf>
- Centers for Medicare and Medicaid Services. (2016a). *Community-based care transitions program*. Retrieved from <https://innovation.cms.gov/initiatives/CCTP/>

- Centers for Medicare and Medicaid Services. (2016b). *Transitional care management services*. Retrieved from <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Transitional-Care-Management-Services-Text-Only.pdf>
- Centers for Medicare and Medicaid Services. (2017). Readmissions reduction program. Retrieved from <https://www.cms.gov/medicare/medicare-fee-for-service-payment/acuteinpatientpps/readmissions-reduction-program.html>
- Centers for Medicare and Medicaid Services. (2018a). *Home health quality measures*. Retrieved from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Home-Health-Quality-Measures.html>
- Centers for Medicare and Medicaid Services. (2018b). *Physician fee schedule search*. Retrieved from <https://www.cms.gov/apps/physician-fee-schedule/search/search-results.aspx?Y=0&T=0&HT=2&CT=0&H1=99341&H2=99350&M=5>
- Coleman, E. A., Min, S., Chomiak, A., & Kramer, A. (2004). Posthospital care transitions: Patterns, complications, and risk identification. *Health Services Research, 39*(5), 1449-1466. doi:10.1111/j.1475-6773.2004.00298.x
- Coleman, E. A., Oarrt, C., Chalmers, S., & Min, S. (2006). The care transitions intervention: Results of a randomized controlled trial. *Archives of Internal Medicine, 166*, 1822-1828. Retrieved from http://caretransitions.org/wp-content/uploads/2015/06/39_The-Care-Transitions-Intervention-Results-of-a-Randomized-Controlled-Trial.pdf

- Desai, A. S., & Stevenson, L. W. (2012). Rehospitalization for heart failure: Predict or prevent? *Circulation*, *126*, 501-506.
doi:10.1161/CIRCULATIONAHA.112.125435
- Doerflinger, C. (2013). *Mental status assessment of older adults: The Mini-Cog, Try this general assessment series: Best practices in nursing care to older adults* (Issue No. 3. Retrieved from <https://consultgeri.org/try-this/general-assessment/issue-3.1.pdf>
- Donze, J., Lipsitz, S., & Schnipper, J. L. (2014). Risk factors for potentially avoidable readmissions due to end-of-life care issues. *Journal of Hospital Medicine*, *9*(5), 310-314. Retrieved from <https://www.journalofhospitalmedicine.com/jhospmed/article/127414/hospital-readmissions-end-life>
- DRG Handbook--Comparative Clinical and Financial Standards. (1996). Cleveland, OH: Ernst & Young.
- Federal Register. (2010). *Health information technology: Initial set of standards, implementation specifications, and certification criteria for electronic health record technology*. Retrieved from <https://www.federalregister.gov/documents/2010/07/28/2010-17210/health-information-technology-initial-set-of-standards-implementation-specifications-and>
- Fox, P. D., & Kongstvedt, P. R. (2012). A history of managed health insurance and managed care. In P. R. Kongstvedt (Ed.), *Essentials of managed health care* (6th ed., pp. 1-36). Sudbury, MA: Jones & Bartlett Learning.
- Global Transitional Care. (2018). *Global transitional care offers care transition services*. Retrieved from <http://gtchealth.com/>

- Graf, C. (2013). *The Lawton instrumental activities of daily living (IADL) scale*. Retrieved from <https://consultgeri.org/try-this/general-assessment/issue-23.pdf>
- Graf, C. (2018). *The hospital admission risk profile (HARP)*. Retrieved from <https://consultgeri.org/try-this/general-assessment/issue-24.pdf>
- Hansen, L. (2016). *Project BOOST: Improving hospital care transitions* [Webinar] Retrieved from http://www.hospitalmedicine.org/Web/Quality___Innovation/Webinars/boost-webinar-april2016.aspx
- Hansen, L. O., Greenwald, J. O., Budnitz, T., Howell, E., Halasyamani, L., Maynard, G., ... Williams, M. V. (2013). Project BOOST: Effectiveness of a multihospital effort to reduce rehospitalization. *Journal of Hospital Medicine*, 8(8), 421-427. doi:10.1002/jhm.2054
- Hirschman, K. B., Shaid, E., McCauley, K., Pauly, M. V., & Naylor, M. D. (2015). Continuity of care: The transitional care model. *Online Journal of Issues in Nursing*, 20(3). Retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-20-2015/No3-Sept-2015/Continuity-of-Care-Transitional-Care-Model.html>
- House Resolution 1825-115th Congress: (2017). *Home Health Care Planning Improvement Act of 2017*. Retrieved from <https://www.govtrack.us/congress/bills/115/hr1825>
- Joint Commission. (n.d.). *Transitions of care: The need for a more effective approach to continuing patient care*. Retrieved from https://www.jointcommission.org/assets/1/18/Hot_Topics_Transitions_of_Care.pdf

- Khetarpal, R. (n.d.). *Defining transitional care*. Retrieved from <http://www.cahcnews.com/newsletters/ca-rkhetarpal-0815.pdf>
- Marc, L. G., Raue, P. J., & Bruce, M. L. (2008). Screening performance of the geriatric depression scale (GDS-15) in a diverse elderly home care population. *American Journal of Geriatric Psychiatry, 16*(11), 914-921.
doi:10.1097/JGP.0b013e318186bd67
- McIlvennan, C. K., Eapen, Z. J., & Allen, L. A. (2016). Hospital readmissions reduction program. *Circulation, 131*(20), 1796-1803.
doi:10.1161/CIRCULATIONAHA.114.010270
- Mertens, D. M. (2018). *Mixed methods design in evaluation*. Thousand Oaks, CA: Sage.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- National Institute on Aging. (n.d.). *Health and aging: Living longer*. Retrieved from <https://www.nia.nih.gov/research/publication/global-health-and-aging/living-longer>
- Naylor, M. (2000). A decade of transitional care research with vulnerable elders. *Journal of Cardiovascular Nursing, 14*(3), 1-14.
- Naylor, M. D., Aiken, L. H., Kurtzman, E. T., Olds, D. M., & Hirschman, K. B. (2011). The importance of transitional care in achieving health reform. *Health Affairs, 30*(4), 746-754. doi:10.1377/hlthaff.2011.0041

- Naylor, M. D., Bowles, K. H., McCauley, K. M., Maccoy, M. C., Maislin, G., Pauley, M. D., & Krakauer, R. (2013). High-value transitional care: translation of research into practice. *Journal of Evaluation in Clinical Practice*, *19*, 727-733.
doi:10.1111/j.1365-2753.2011.01659.x
- Naylor, M. D., Brooten, D., Campbell, R. L., Jacobsen, B. S., Mezey, M. D., Pauly, M. D., & Schwartz, J. S. (1999). Comprehensive discharge planning and home follow-up of hospitalized elders: A randomized clinical trial. *Journal of the American Medical Association*, *281*(7), 613-620. doi:10.1001/jama.281.7.613
- Naylor, M. D., Brooten, D. A., Campbell, R. L., Maislin, G., McCauley, K. M., & Schwartz, J. S. (2004). Transitional care of older adults hospitalized with heart failure: A randomized controlled trial. *Journal of the American Geriatric Society*, *52*, 675-684.
- Naylor, M. D., Brooten, D. A., Jones, R., Lavizzo-Mourey, R., Mezey, M., & Pauly, M. (1994). Comprehensive discharge planning for the hospitalized elderly: A randomized clinical trial. *Annals of Internal Medicine*, *120*(12), 999-1006.
doi:10.7326/0003-4819-120-12-199406150-00005
- Naylor, M. D., Shaid, E. C., Carpenter, D., Gass, B., Levine, C., Li, J., ... Williams, M. (2017). Components of comprehensive and effective transitional care. *Journal of the American Geriatric Society*, *65*, 1119-1125. doi:10.1111/jgs.14782
- Naylor, M. D., & Sochalski, J. A. (2010). Scaling up: Bringing the transitional care model into the mainstream. *Issue Brief (Commonwealth Fund)*, *103*, 1-12.

- Nielsen, G. A., Bartely, A., Coleman, A., Resar, R., Rutherford, P., Souw, D., & Taylor, J. (2008). *Transforming care at the bedside how-to guide: Creating an ideal transition home for patients with heart failure*. Cambridge, MA: Institute for Healthcare Improvement.
- Packham, J., Griswold, T., Jorgensen, T., Etchegoyhen, L., & Marchand, L. (2016). *Physician workforce in Nevada 2016 edition*. Retrieved from file:///C:/Users/gail%20rattigan/Downloads/Physician_Workforce_in_Nevada_2016_Edition_-_March_2016_-_FINAL%20(1).pdf
- Pfefferkorn, C. (2006). Hospitalist vs family physician. *British Medical Journal*, 48(3), 127.
- Price, M. (2017). *Transitional care management: Getting paid for what we do best!* [Webcast]. Retrieved from <https://www.aafp.org/practice-management/payment/coding/medicare-coordination-services/tcm/webcast.html>
- Saleh, S. S., Freire, C., Morris-Dickinson, G. M., & Shannon, T. (2012). An effectiveness and cost-benefit analysis of a hospital-based discharge transition program for elderly Medicare recipients. *Journal of the American Geriatrics Society*, 60(6), 1051-1056. doi:10.1111/j.1532-5415.2012.03992.x
- Shaid, E., Bixby, M. B., Hirschman, K., McCauley, K., & Naylor, M. (2016). *The transitional care model (TCM): Hospital discharge screening criteria for high risk older adults*. New York: New York University, Rory Meyers College of Nursing.

- Shelkey, M., & Wallace, M. (2012). Try this: Katz index of independence in activities of daily living (ADL). *Geriatric Nursing, 21*(2), 109.
doi:[https://doi.org/10.1016/S0197-4572\(00\)70015-2](https://doi.org/10.1016/S0197-4572(00)70015-2)
- U.S. Department of Housing and Urban Development. (n.d.). *HUD's public housing program*. Retrieved from https://www.hud.gov/topics/rental_assistance/phprog
- U.S. Department of Justice, Drug Enforcement Administration Diversion Control Division. (n.d.). *Valid prescription requirements*. Retrieved from <https://www.deaiversion.usdoj.gov/pubs/manuals/pract/section5.htm>
- U.S. Senate. (2017). *115th Congress, 2nd session: Tentative 2018 legislative schedule*. Retrieved from <https://www.senate.gov/>
- Waldrop, J., Caruso, D., Fuchs, M. A., & Hypes, K. (2014). EC as PIE: Five criteria for executing a successful DNP final project. *Journal of Professional Nursing, 30*(4), 300-306. doi:10.1016/j.profnurs.2014.01003
- White, K.M., Dudley-Brown, S., & Terhaar, M.F. (2016). *Translation of evidence into nursing and health care* (2nd ed.). New York, NY: Springer Publishing Company.

APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL



Institutional Review Board

DATE: May 16, 2018

TO: Gail Rattigan, DNP

FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1216677-1] Implementation of a Transitional Care Program by a Community Clinic

SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: May 16, 2018

EXPIRATION DATE: May 16, 2022

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Gail -

Thank you for submitting a thorough and clear IRB application. The MOU and other additional documentation is much appreciated and good to have on file already.

Be sure to use these protocols and materials in your participant recruitment and data collection.

Best wishes with your research.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

APPENDIX B
CONSENT FORM FOR HUMAN PARTICIPATION
IN RESEARCH

CONSENT FORM FOR HUMAN PARTICIPATION IN RESEARCH

UNIVERSITY OF NORTHERN COLORADO

Complete Medical Consultants (CMC) Henderson, Nevada

Project Title: Implementation of a Transitional Care Program by a Community Clinic

Student Project Coordinator: Gail Rattigan, MSN, APRN, FNP-BC

Community Project Coordinator: Scott Lamprecht, DNP, APRN, FNP-BC

Research Advisor: Kathleen N. Dunem, PhD, APRN, CNM

The purpose of this Doctorate of Nursing Practice Scholarly Project is to implement best practice in the transitional care of Medicare patients discharged from hospital to home.

Primary goal: The goal of the project is to improve quality of care and avoiding readmission to the hospital due to gaps in care and communication during the 30 days following discharge from the hospital.

Patients participating in this project will receive state-of-the art evaluation of their health status and their risks for poor health outcomes. I, and my colleague Dr. Lamprecht, will provide assistance to you to be sure you have a timely visit with your primary care provider and if you do not have a primary care provider will assist you to find one. We will be sure you have referrals to any needed specialists and other care such as physical or other therapy. We will either visit you or talk to you on the phone weekly, or more often as you need. We will teach you how to manage any chronic condition and what complications to watch for that would indicate you should seek care. For the 30-days after your discharge, we will be available by phone on a daily basis. Our goal is to help you remain at home, be able to better understand your health condition, medications, and how to stay healthy and avoid having to go back to the hospital.

The possible benefit of participating in this project is extra care according to best-care guidelines and better personal health outcomes, including less hospital admissions.

Participation is voluntary and all health information obtained during the project will be protected according to federal privacy laws (HIPAA). The written documentation of project results will not include any individual patient information.

There is no identified risk to you as a result of your participation. The initial assessment and any subsequent visits by the nurse practitioner may take more of your time. Estimated increased time with the nurse practitioner versus usual care is about 2 total hours, depending on your needs. All rendered services including any additional needed home visits and the transitional care provided are Medicare-covered and will be billed to Medicare.

If you do not want to participate in the project, you will still be happily provided usual post-discharge care without any loss of services.

You have no obligation to participate in this project and also may discontinue participation at any time by just informing me or my colleague. Your decision will be respected and will not result in any reduction to benefits to which you are entitled.

If you have any concerns about your selection for the project or any concerns about your treatment during the project you may contact Sherry May, IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado, Greeley CO 80639; Phone 970-351-1910

Student Project Coordinator: Gail Rattigan, MSN, APRN, FNP-BC
E-mail: ratt5838@bears.unco.edu
Phone: 702-321-5537

Research Advisor: Kathleen N. Dunemn, PhD, APRN, CNM
E-mail: kathleen,dunemn@unco.edu
Phone: 970-351-3081/303-649-5581

Having read the above and having had the opportunity to ask any questions, please sign below if you agree to participate in the project.

Subject's Signature

Date

Project Coordinator Signature

Date

APPENDIX C
STATEMENTS OF MUTUAL AGREEMENT



COMPLETE MEDICAL CONSULTANTS

2920 N. Green Valley Parkway, Suite 821

Henderson, NV 89014

Office (702) 566-6429 Fax: (702) 434-5581

scott@cmcnevada.org

Statement of Mutual Agreement

University of Northern Colorado

Doctorate of Nursing Practice Scholarly Project

Gail Rattigan

April 24, 2018

The purpose of the "Statement of Mutual Agreement is to describe the shared view between Complete Medical Consultants and Gail Rattigan, DNP candidate from University of Northern Colorado regarding her proposed DNP scholarly project.

Proposed Project Title: Implementation of a Transitional Care Program by a Community Clinic

Brief Description of Proposed Project: Implementation of a best-practice transitional care model in a community primary care clinic in Las Vegas, Nevada to reduce hospital readmissions among Medicare recipients discharged from hospital to home.

Goal of Project: To decrease excessive hospital readmissions among Medicare recipients discharged from hospital to home through implementation of evidence-based transitional care.

Confidentiality of Patient Records: Data and information used for project will be the data and information routinely gathered during the course of providing care. This data will be maintained in a secure electronic medical records system which meets standards of the Health Insurance Portability and Accountability Act (HIPAA). Paper checklists and any paper records will be stored in a locked cabinet on the CMC premises, accessible only to the project coordinator and the agency participant. Protected health information will be de-identified prior to use in reporting outcomes and in the written final project.

Additional Project Guidelines: The project will be conducted according to Common Rule Guidelines as outlined in the Collaborative Institutional Training Initiative (CITI). The project will include a final written report, an abstract, potential publication or oral presentation of project findings. No personal identifiers of participants will be included and data will be presented in aggregate form. The project coordinator welcomes any comments or suggestions from the agency (Complete Medical Consultants) but reserves the right to publish findings and analysis according to professional standards and principles of academic freedom. For any work of a scholarly nature, the project coordinator agrees to follow the agency preferences in how it is to be named or not in the final version.



COMPLETE MEDICAL CONSULTANTS
2920 N. Green Valley Parkway, Suite 821
Henderson, NV 89014
Office (702) 566-6429 Fax: (702) 434-5581
scott@cmcnvada.org

The project Agency member has access to review the student's medical records and written findings and report.

<u>S</u>	<u>APRN, FNP-BC</u>	<u>4/27/18</u>
Signature of DNP Student		Date
		<u>4/27/18</u>
Signature of Agency Member		Date
<u>[Redacted]</u>	<u>APRN, CNM</u>	<u>4/29/18</u>
Signature of DNP Project Chair		Date

Statement of Mutual Agreement

University of Northern Colorado

Doctorate of Nursing Practice Scholarly Project

Gail Rattigan

August 1, 2018

The purpose of the “Statement of Mutual Agreement is to describe the shared view between Face-to-Face Medical Management and Gail Rattigan, DNP candidate from University of Northern Colorado regarding her proposed DNP scholarly project.

Proposed Project Title: Implementation of a Transitional Care Program by a Community Clinic

Brief Description of Proposed Project: Implementation of a best-practice transitional care model with home-health patients in the greater Las Vegas, Nevada community to reduce hospital readmissions among Medicare recipients discharged from hospital to home.

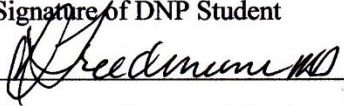
Goal of Project: To decrease excessive hospital readmissions among Medicare recipients discharged from hospital to home through implementation of evidence-based transitional care.

Confidentiality of Patient Records: Data and information used for project will be the data and information routinely gathered during the course of providing care. This data will be maintained in a secure electronic medical records system which meets standards of the Health Insurance Portability and Accountability Act (HIPAA). Paper checklists and any paper records will be stored in a locked cabinet at the project coordinator’s home, accessible only to the project coordinator and the agency participant as requested. Protected health information will be de-identified prior to use in reporting outcomes and in the written final project.

Additional Project Guidelines: The project will be conducted according to Common Rule Guidelines as outlined in the Collaborative Institutional Training Initiative (CITI). The project will include a final written report, an abstract, potential publication or oral presentation of project findings. No personal identifiers of participants will be included and data will be presented in aggregate form. The project coordinator welcomes any comments or suggestions from the agency (Face-to-Face Medical Consultants) but reserves the right to publish findings and analysis according to professional standards and principles of academic freedom. For any work of a scholarly nature, the project coordinator agrees to follow the agency preferences in how it is to be named or not in the final version.

The project coordinator will receive no compensation for patient visits during the project. The agency is welcome to bill for visits and retain the proceeds.

The project Agency member has access to review the student's medical records and written findings and report.

Signature of DNP Student	Date
 Donielle Freedman MD	8/23/2018
Signature of Agency Member	Date

Signature of DNP Project Chair	Date
--------------------------------	------

APPENDIX D

**HOSPITAL DISCHARGE SCREENING CRITERIA
INSTRUMENT FOR HIGH-RISK OLDER ADULTS**



Issue Number 26, 2009

Editor-in-Chief: Sherry A. Greenberg, PhD(c), MSN, GNP-BC
New York University College of Nursing

The Transitional Care Model (TCM): Hospital Discharge Screening Criteria for High Risk Older Adults

M. Brian Bixby, MSN, CRNP and Mary D. Naylor, PhD, RN, FAAN
University of Pennsylvania School of Nursing, NewCourtland Center for Transitions and Health

WHY: Older adults hospitalized for a newly diagnosed acute condition or an exacerbation of a chronic condition are at heightened risk of re-hospitalization due to poorly managed transitions from hospital to home or other care setting. For older patients with multiple chronic conditions this "hand-off" period takes on even greater importance. One-quarter to one-third of these patients are re-hospitalized due to preventable complications. This evidence-based practice approach addresses needed hospital discharge assessment that should be completed by registered nurses or advanced practice nurse staff managing the complex care of hospitalized older adults.

BEST PRACTICE: The Transitional Care Model (TCM): Hospital Discharge Screening Criteria for High Risk Older Adults identifies 10 screening criteria developed and modified based on the results of completed randomized clinical trials of older adults with common medical and surgical DRCs (e.g., heart failure, angina, cardiac surgery, etc) and found to correlate to higher risk on transition from hospital to home (Transforming Care at the Bedside How-to Guide: Creating an Ideal Transition Home for Patients with Heart Failure. Institute for Healthcare Improvement, Robert Wood Johnson Foundation, 2007. <http://www.wihi.org>). Positive findings should be discussed with the patient, caregiver, physician or other provider and discharge planning staff to ascertain inclusion of these considerations in the discharge plan and need for further assessment of needs on transition to home or other care setting.

TARGET POPULATION: Older adults hospitalized for an acute illness or exacerbation of a chronic condition.

VALIDITY AND RELIABILITY: Since 1989, three NIH funded randomized controlled clinical trials have tested and refined an innovative model of care coordination, the Transitional Care Model (TCM). The TCM has consistently demonstrated improved patient outcomes and substantial decreases in health care costs, and is the source of the high risk factors in the screening criteria. Evidence from these trials has shown that presence of two or more of these screening criteria significantly heightens the probability of a poor post-hospitalization transition and would be highly likely to require some level of post-discharge intervention. The TCM emphasizes achieving *longer term* positive outcomes by assuring that patients and their family caregivers have the knowledge and skills to recognize and address health care problems as they arise.

STRENGTHS AND LIMITATIONS: A major strength of the Transitional Care Model (TCM) Hospital Discharge Screening Criteria for High Risk Older Adults is its ability to identify patients at high risk for poor outcomes after hospitalization for an acute or exacerbated chronic illness. This screening is easy and quick to administer and does not require advanced training to complete. All of the instruments used in the screening can be found as part of the *Try This* series. There are no limitations to completing the screening as outlined, only the ability to refer and availability of transitional care services in many settings. Any suspected or diagnosed cognitive impairment with or without the screening criteria would independently trigger post-discharge intervention to assure appropriate information transfer and follow-up after discharge to home or other care setting.

FOLLOW-UP: The potential for improved patient outcomes and decreased health care costs warrants ongoing development and refinement of discharge assessment skills to prevent untoward events post-discharge. Nurses should actively work with their clinical leadership to identify patterns occurring in their unique populations and additional risks to be considered, and incorporate these findings once validated to enhance the tool to best meet their organization's needs and population served.

Permission is hereby granted to reproduce, post, download, and/or distribute, this material in *its entirety* only for not-for-profit educational purposes only, provided that The Hartford Institute for Geriatric Nursing, New York University, College of Nursing, is cited as the source. This material may be downloaded and/or distributed in electronic format, including PDF format, available on the internet at www.bestpractice.org and/or www.CasualtyCare.org. E-mail notification of usage to best@hertford.ig.nyu.edu.

APPENDIX E
KATZ INDEX OF INDEPENDENCE IN ACTIVITIES
OF DAILY LIVING



Issue Number 2, Revised 2012

Editor-in-Chief: Sherry A. Greenberg, PhD(c), MSN, GNP-BC
New York University College of Nursing

Katz Index of Independence in Activities of Daily Living (ADL)

By: Mary Shelkey, PhD, ARNP, Virginia Mason Medical Center, and
Meredith Wallace, PhD, APRN, BC, Fairfield University School of Nursing

WHY: Normal aging changes and health problems frequently show themselves as declines in the functional status of older adults. Declines may place the older adult on a spiral of iatrogenesis leading to further health problems. One of the best ways to evaluate the health status of older adults is through functional assessment which provides objective data that may indicate future decline or improvement in health status, allowing the nurse to plan and intervene appropriately.

BEST TOOL: The Katz Index of Independence in Activities of Daily Living, commonly referred to as the Katz ADL, is the most appropriate instrument to assess functional status as a measurement of the client's ability to perform activities of daily living independently. Clinicians typically use the tool to detect problems in performing activities of daily living and to plan care accordingly. The Index ranks adequacy of performance in the six functions of *bathing, dressing, toileting, transferring, continence, and feeding*. Clients are scored yes/no for independence in each of the six functions. A score of 6 indicates full function, 4 indicates moderate impairment, and 2 or less indicates severe functional impairment.

TARGET POPULATION: The instrument is most effectively used among older adults in a variety of care settings, when baseline measurements, taken when the client is well, are compared to periodic or subsequent measures.

VALIDITY AND RELIABILITY: In the forty-eight years since the instrument has been developed, it has been modified and simplified and different approaches to scoring have been used. However, it has consistently demonstrated its utility in evaluating functional status in the elderly population. Although no formal reliability and validity reports could be found in the literature, the tool is used extensively as a flag signaling functional capabilities of older adults in clinical and home environments.

STRENGTHS AND LIMITATIONS: The Katz ADL Index assesses basic activities of daily living. It does not assess more advanced activities of daily living. Katz developed another scale for instrumental activities of daily living such as heavy housework, shopping, managing finances and telephoning. Although the Katz ADL Index is sensitive to changes in declining health status, it is limited in its ability to measure small increments of change seen in the rehabilitation of older adults. A full comprehensive geriatric assessment should follow when appropriate. The Katz ADL Index is very useful in creating a common language about patient function for all practitioners involved in overall care planning and discharge planning.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerRN.org

Garf C. (2006). Functional decline in hospitalized older adults. *JGIM*, 21(6), 58-67.

Hartigan, I. (2007). A comparative review of the Katz ADL and the Barthel Index in assessing the activities of daily living of older people. *International Journal of Older People Nursing*, 2(3), 204-212.

Katz, S. (1963). Assessing self-maintenance: Activities of daily living, mobility and instrumental activities of daily living. *JGCS*, 32(12), 721-726.

Katz, S., Down, TD., Cash, H.R., & Grots, R.C. (1970) Progress in the development of the index of ADL. *The Gerontologist*, 10(1), 20-30.

Katz, S., Ford, A.E., Moskowitz, R.W., Jackson, B.A., & Jaffe, M.W. (1963). Studies of illness in the aged: The index of ADL: A standardized measure of biological and psychosocial function. *JAMA*, 185(12), 914-919.

Kucsvic, D.M. (2012). Assessment of physical function. In M. Bolts, E. Capenuti, T.T. Fulmer, & D. Zwicker (Eds.), A. O'Meara (Managing Ed.), *Evidence-based geriatric nursing protocols for best practice* (4th ed., pp 89-103). NY: Springer Publishing Company, LLC.

Permission is hereby granted to reproduce, post, download, and/or distribute this material in *hard-copy* only for not-for-profit educational purposes only, provided that The Hartford Institute for Geriatric Nursing, New York University, College of Nursing is cited as the source. This material may be downloaded and/or distributed in electronic format, including PDF format. Available on the internet at www.hartfordig.org and/or www.ConsultGerRN.org. E-mail notification of usage to: hartfordig@nyu.edu.

Katz Index of Independence in Activities of Daily Living

ACTIVITIES POINTS (1 OR 0)	INDEPENDENCE: (1 POINT) NO supervision, direction or personal assistance	DEPENDENCE: (0 POINTS) WITH supervision, direction, personal assistance or total care
BATHING POINTS: _____	(1 POINT) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	(0 POINTS) Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing.
DRESSING POINTS: _____	(1 POINT) Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	(0 POINTS) Needs help with dressing self or needs to be completely dressed.
TOILETING POINTS: _____	(1 POINT) Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	(0 POINTS) Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
TRANSFERRING POINTS: _____	(1 POINT) Moves in and out of bed or chair unaided. Mechanical transferring aides are acceptable.	(0 POINTS) Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE POINTS: _____	(1 POINT) Exercises complete self control over urination and defecation.	(0 POINTS) Is partially or totally incontinent of bowel or bladder.
FEEDING POINTS: _____	(1 POINT) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 POINTS) Needs partial or total help with feeding or requires parenteral feeding.

TOTAL POINTS = _____ 6 = High (patient independent) 0 = Low (patient very dependent)

Slightly adapted from Katz, S., Down, T.D., Cash, H.R., & Grotz, R.C. (1970) Progress in the development of the index of ADL. *The Gerontologist*, 10(1), 20-30.

Copyright © The Gerontological Society of America. Reproduced [Adapted] by permission of the publisher.



A series provided by The Hartford Institute for Geriatric Nursing,
New York University, College of Nursing
www.hartford.ign.nyu.edu | 212.875.5600 | www.hartford.ign.org

APPENDIX F
LAWTON INSTRUMENTAL ACTIVITIES
OF DAILY LIVING



Issue Number 23, Revised 2013

Editor-in-Chief: Sherry A. Greenberg, PhD(c) MSN, GNP-BC
New York University College of Nursing

The Lawton Instrumental Activities of Daily Living (IADL) Scale

By: Carla Graf, PhD(c), MS, RN, GCNS-BC, University of California, San Francisco

WHY: The assessment of functional status is critical when caring for older adults. Normal aging changes, acute illness, worsening chronic illness, and hospitalization can contribute to a decline in the ability to perform tasks necessary to live independently in the community. The information from a functional assessment can provide objective data to assist with targeting individualized rehabilitation needs or to plan for specific in-home services such as meal preparation, nursing and personal care, home-maker services, financial and medication management, and/or continuous supervision. A functional assessment can also guide the clinician to focus on the person's baseline capabilities, facilitating early recognition of changes that may signify a need either for additional resources or for a medical work-up (Gallo & Paveza, 2006).

BEST TOOL: The Lawton Instrumental Activities of Daily Living Scale (IADL) is an appropriate instrument to assess independent living skills (Lawton & Brody, 1969). These skills are considered more complex than the basic activities of daily living as measured by the Katz Index of ADLs (See *Try This:* Katz Index of ADLs). The instrument is most useful for identifying how a person is functioning at the present time and for identifying improvement or deterioration over time. There are 8 domains of function measured with the Lawton IADL scale. Historically, women were scored on all 8 areas of function; men were not scored in the domains of food preparation, housekeeping, and laundry. However, current recommendations are to assess all domains for both genders (Lawton, Moss, Fulmer, & Kleban, 2005). Persons are scored according to their highest level of functioning in that category. A summary score ranges from 0 (low function, dependent) to 8 (high function, independent).

TARGET POPULATION: This instrument is intended to be used among older adults, and may be used in community clinic, or hospital settings. The instrument is not useful for institutionalized older adults. It may be used as a baseline assessment tool and to compare baseline function to periodic assessments.

VALIDITY AND RELIABILITY: Few studies have been performed to test the Lawton IADL scale psychometric properties. The Lawton IADL Scale was originally tested concurrently with the Physical Self-Maintenance Scale (PSMS). Reliability was established with twelve subjects interviewed by one interviewer with the second rater present but not participating in the interview process. Inter-rater reliability was established at 0.85. The validity of the Lawton IADL was tested by determining the correlation of the Lawton IADL with four scales that measured domains of functional status, the Physical Classification (6-point rating of physical health), Mental Status Questionnaire (10-point test of orientation and memory), Behavior and Adjustment Rating scales (4-6-point measure of intellectual, person, behavioral and social adjustment), and the PSMS (6-item ADLs). A total of 180 research subjects participated in the study, however, few received all five evaluations. All correlations were significant at the 0.01 or 0.05 level. To avoid potential gender bias at the time the instrument was developed, specific items were omitted for men. This assessment instrument is widely used both in research and clinical practice.

STRENGTHS AND LIMITATIONS: The Lawton IADL is an easy to administer assessment instrument that provides self-reported information about functional skills necessary to live in the community. Administration time is 10-15 minutes. Specific deficits identified can assist nurses and other disciplines in planning for safe hospital discharge.

A limitation of the instrument includes the self-report or surrogate report method of administration rather than a demonstration of the functional task. This may lead either to overestimation or underestimation of ability. In addition, the instrument may not be sensitive to small, incremental changes in function.

FOLLOW-UP: The identification of new disabilities in these functional domains warrants intervention and further assessment to prevent ongoing decline and to promote safe living conditions for older adults. If using the Lawton IADL both with an acute hospitalization, nurses should communicate any deficits to the physicians and social workers/case managers for appropriate discharge planning.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultCenter.org.

Gallo, J.J., & Paveza, G.J. (2006). Activities of daily living and instrumental activities of daily living assessment. In J.J. Gallo, H.R. Bogner, T. Fulmer, & G.J. Paveza (Eds.), *Handbook of Geriatric Assessment* (4th ed., pp. 193-240). MA: Jones and Bartlett Publishers.

Graf, C. (2006). Functional decline in hospitalized older adults. *AGS*, 10(6), 58-67.

Graf, C. (2008). The Lawton Instrumental Activities of Daily Living Scale. *AGS*, 10(4), 52-62.

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179-186.

Lawton, M.P., Moss, M., Fulmer, M., & Kleban, M.H. (2005). *Multi-level assessment instrument manual for full-length AGS*. North Wales PA: Polisher Research Institute, Madlyn and Leonard Abramson Center for Jewish Life.

Pearson, V. (2000). Assessment of function. In R. Kane, & R. Kane (Eds.), *Assessing Older Persons: Measures, Meaning and Practical Applications* (pp. 17-48). New York: Oxford University Press.

Permission is hereby granted to reproduce, post, download, and/or distribute, this material in *electronic* only for not-for-profit educational purposes only, provided that The Hartford Institute for Geriatric Nursing, New York University, College of Nursing is cited as the source. This material may be downloaded and/or distributed in electronic format, including PDF format, available on the internet at www.hartford.org and/or www.ConsultCenter.org. E-mail notification of usage to hartford@nyu.edu.

The Lawton Instrumental Activities of Daily Living Scale

A. Ability to Use Telephone

1. Operates telephone on own initiative; looks up and dials numbers..... 1
2. Dials a few well-known numbers..... 1
3. Answers telephone, but does not dial..... 1
4. Does not use telephone at all..... 0

B. Shopping

1. Takes care of all shopping needs independently..... 1
2. Shops independently for small purchases..... 0
3. Needs to be accompanied on any shopping trip..... 0
4. Completely unable to shop..... 0

C. Food Preparation

1. Plans, prepares, and serves adequate meals independently..... 1
2. Prepares adequate meals if supplied with ingredients..... 0
3. Heats and serves prepared meals or prepares meals but does not maintain adequate diet..... 0
4. Needs to have meals prepared and served..... 0

D. Housekeeping

1. Maintains house alone with occasion assistance (heavy work)..... 1
2. Performs light daily tasks such as dishwashing, bed making..... 1
3. Performs light daily tasks, but cannot maintain acceptable level of cleanliness..... 1
4. Needs help with all home maintenance tasks..... 1
5. Does not participate in any housekeeping tasks..... 0

E. Laundry

1. Does personal laundry completely..... 1
2. Launders small items, rinses socks, stockings, etc..... 1
3. All laundry must be done by others..... 0

F. Mode of Transportation

1. Travels independently on public transportation or drives own car..... 1
2. Arranges own travel via taxi, but does not otherwise use public transportation..... 1
3. Travels on public transportation when assisted or accompanied by another..... 1
4. Travel limited to taxi or automobile with assistance of another..... 0
5. Does not travel at all..... 0

G. Responsibility for Own Medications

1. Is responsible for taking medication in correct dosages at correct time..... 1
2. Takes responsibility if medication is prepared in advance in separate dosages..... 0
3. Is not capable of dispensing own medication..... 0

H. Ability to Handle Finances

1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank); collects and keeps track of income..... 1
2. Manages day-to-day purchases, but needs help with banking, major purchases, etc..... 1
3. Incapable of handling money..... 0

Scoring: For each category, circle the item description that most closely resembles the client's highest functional level (either 0 or 1).

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179-186.

Copyright © The Gerontological Society of America. Reproduced [Adapted] by permission of the publisher.



A series provided by The Hartford Institute for Geriatric Nursing,
New York University, College of Nursing
www.hartford.igdn.org
www.cornell.edu
www.consent.org

APPENDIX G
GERIATRIC DEPRESSION SCALE



Issue Number 4, Revised 2012

Editor-in-Chief: Sherry A. Greenberg, PhD(c) MSN, GNP-BC
New York University College of Nursing

The Geriatric Depression Scale (GDS)

By Sherry A. Greenberg, PhD(c), MSN, GNP-BC,
Hartford Institute for Geriatric Nursing, NYU College of Nursing

WHY: Depression is common in late life, affecting nearly 5 million of the 31 million Americans aged 65 and older with clinically significant depressive symptoms reaching 13% in older adults aged 80 and older (Blazer, 2009). Major depression is reported in 8-16% of community dwelling older adults, 5-10% of older medical outpatients seeing a primary care provider, 10-12% of medical-surgical hospitalized older adults with 23% more experiencing significant depressive symptoms (Blazer, 2009). Recognition in long-term care facilities is poor and not consistent amongst studies (Blazer, 2009).

Depression is not a natural part of aging. Depression is often reversible with prompt recognition and appropriate treatment. However, if left untreated, depression may result in the onset of physical, cognitive, functional, and social impairment, as well as decreased quality of life, delayed recovery from medical illness and surgery, increased health care utilization, and suicide.

BEST TOOL: While there are many instruments available to measure depression, the Geriatric Depression Scale (GDS), first created by Yesavage, et al., has been tested and used extensively with the older population. The GDS Long Form is a brief, 30-item questionnaire in which participants are asked to respond by answering yes or no in reference to how they felt over the past week. A Short Form GDS consisting of 15 questions was developed in 1986. Questions from the Long Form GDS which had the highest correlation with depressive symptoms in validation studies were selected for the short version. Of the 15 items, 10 indicated the presence of depression when answered positively, while the rest (question numbers 1, 5, 7, 11, 13) indicated depression when answered negatively. Scores of 0-4 are considered normal, depending on age, education, and complaints; 5-8 indicate mild depression; 9-11 indicate moderate depression; and 12-15 indicate severe depression.

The Short Form is more easily used by physically ill and mildly to moderately demented patients who have short attention spans and/or feel easily fatigued. It takes about 5 to 7 minutes to complete.

TARGET POPULATION: The GDS may be used with healthy, medically ill and mild to moderately cognitively impaired older adults. It has been extensively used in community, acute and long-term care settings.

VALIDITY AND RELIABILITY: The GDS was found to have a 92% sensitivity and a 89% specificity when evaluated against diagnostic criteria. The validity and reliability of the tool have been supported through both clinical practice and research. In a validation study comparing the Long and Short Forms of the GDS for self-rating of symptoms of depression, both were successful in differentiating depressed from non-depressed adults with a high correlation ($r = .84, p < .001$) (Sheikh & Yesavage, 1986).

STRENGTHS AND LIMITATIONS: The GDS is not a substitute for a diagnostic interview by mental health professionals. It is a useful screening tool in the clinical setting to facilitate assessment of depression in older adults especially when baseline measurements are compared to subsequent scores. It does not assess for suicidality.

FOLLOW-UP: The presence of depression warrants prompt intervention and treatment. The GDS may be used to monitor depression over time in all clinical settings. Any positive score above 5 on the GDS Short Form should prompt an in-depth psychological assessment and evaluation for suicidality.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerRN.org.

The Stanford/WAHLIA Aging Clinical Resource Center (ACRC) website. Retrieved July 2, 2012, from <http://www.stanford.edu/~yesavage/ACRC.html>. Information on the GDS. Retrieved July 2, 2012, from <http://www.stanford.edu/~yesavage/GDS.html>.

Blazer, D.G. (2009). Depression in late life: Review and commentary. *FDCCUS*, 7(1), 118-136.

Greenberg, S.A. (2007). How to Try This: The Geriatric Depression Scale - Short Form. *AJN*, 107(10), 60-69.

Harvath, T.A., & McBeckie, C. (2012). Depression in Older Adults. In M. Boltz, E. Capezuti, T.T. Fulmer, & D. Zwiler (Eds.), *Evidence-based geriatric nursing protocols for best practice* (4th ed., pp. 135-162). NY: Springer Publishing Company, LLC.

Koenig, H.G., Meador, R.G., Cohen, J.J., & Blazer, D.G. (1988). Self-rated depression scales and screening for major depression in the older hospitalized patient with medical illness. *JACS*, 36, 699-706.

Sheikh, J.I., & Yesavage, J.A. (1986). Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. In T.L. Brink (Ed.), *Clinical Gerontology: A Guide to Assessment and Intervention* (pp. 165-173). NY: The Haworth Press, Inc.

Yesavage, J.A., Brink, T.L., Rose, T.L., Lum, O., Huang, V., Adey, M.B., & Leirer, V.O. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, 17, 37-49.

Permission is hereby granted to reproduce, post, download, and/or distribute this material in *reading only* for not-for-profit educational purposes only, provided that The Hartford Institute for Geriatric Nursing, New York University, College of Nursing is cited as the source. This material may be downloaded and/or distributed in electronic format, including PDF format, available on the internet at www.hartfordinstitute.org and/or www.ConsultGerRN.org. E-mail notification of usage to hartfordinstitute@nyu.edu.

Geriatric Depression Scale: Short Form

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life? YES / **NO**
2. Have you dropped many of your activities and interests? YES / NO
3. Do you feel that your life is empty? **YES** / NO
4. Do you often get bored? **YES** / NO
5. Are you in good spirits most of the time? YES / **NO**
6. Are you afraid that something bad is going to happen to you? **YES** / NO
7. Do you feel happy most of the time? YES / **NO**
8. Do you often feel helpless? **YES** / NO
9. Do you prefer to stay at home, rather than going out and doing new things? **YES** / NO
10. Do you feel you have more problems with memory than most? **YES** / NO
11. Do you think it is wonderful to be alive now? YES / **NO**
12. Do you feel pretty worthless the way you are now? YES / NO
13. Do you feel full of energy? YES / **NO**
14. Do you feel that your situation is hopeless? **YES** / NO
15. Do you think that most people are better off than you are? **YES** / NO

Answers in **bold** indicate depression. Score 1 point for each bolded answer.

A score > 5 points is suggestive of depression.

A score \geq 10 points is almost always indicative of depression.

A score > 5 points should warrant a follow-up comprehensive assessment.

Source: <http://www.stanford.edu/~yesavage/GDS.html>

This scale is in the public domain.

The Hartford Institute for Geriatric Nursing would like to acknowledge the original author of this Try This, Lenore Kurbowicz, PhD, RN, CS, FAAN, who made significant contributions to the field of geropsychiatric nursing and passed away in 2007.



A series provided by The Hartford Institute for Geriatric Nursing,
New York University, College of Nursing
115A Hartford, ign@nyu.edu | 212.850.5611 | www.hartfordign.org
©2007. All rights reserved. www.ConsultGerPN.org

APPENDIX H
MENTAL STATUS ASSESSMENT OF OLDER
ADULTS: THE MINI-COG



Issue Number 3, Revised 2013

Editor-in-Chief: Sherry A. Greenberg, PhD (c) MSN, GNP-BC
New York University College of Nursing

Mental Status Assessment of Older Adults: The Mini-Cog™

By: Deirdre M. Carolan Doerflinger, CRNP, PhD, Inova Fairfax Hospital, Falls Church, Virginia

WHY: Five and a third (5.3) million Americans of all ages have Alzheimer's disease or other dementias. Age is by far the greatest risk factor. One in ten individuals over 65 and nearly half of those over 85 are affected. A new case of dementia in some form is diagnosed every 70 seconds according to the *2010 Alzheimer's Disease Facts and Figures; Older Americans 2010 Key Indicators of Well-Being*. The increased availability of successful treatments for dementia and dementia-related illnesses means there is a substantial need for increased early identification of cognitive impairment, particularly in the geriatric population. Using a reliable and valid tool that clinicians can quickly implement facilitates early identification and allows the person to receive prompt treatment. Early identification and intervention in the form of medication and behavioral therapy may slow disease progression, delay functional decline, allow for pre-planning, and postpone nursing home placement.

BEST TOOL: The Mini-Cog™ is a simple screening tool that is well accepted and takes up to only 3 minutes to administer. This tool can be used to detect cognitive impairment quickly during both routine visits and hospitalizations. The Mini-Cog™ serves as an effective triage tool to identify patients in need of more thorough evaluation. The Clock Drawing Test (CDT) component of the Mini-Cog™ allows clinicians to quickly assess numerous cognitive domains including cognitive function, memory, language comprehension, visual-motor skills, and executive function and provides a visible record of both normal and impaired performance that can be tracked over time.

TARGET POPULATION: The Mini-Cog™ is appropriate for use in all health care settings. It is appropriate to be used with older adults at various heterogeneous language, culture, and literacy levels.

VALIDITY AND RELIABILITY: The Mini-Cog™ was developed as a brief screening tool to differentiate patients with dementia from those without dementia. Depending on the prevalence of dementia in the target population, the Mini-Cog™ has sensitivity ranging from 76-99%, and specificity ranging from 89-93% with 95% confidence interval. A chi square test reported 234.4 for Alzheimer's dementia and 118.3 for other dementias ($p < 0.001$). This tool has strong predictive value in multiple clinical settings (Borson et al., 2003). Newer research suggests that a 5-point numerical scoring system based on the original algorithm may be easier to apply: repeating three items (0 points), a clock drawing distractor (CDT) (0-2 points), and recall of the earlier three items after the CDT (0-3 points). A score of 3-5 out of 5 is a negative screen for dementia (Borson et al., 2006), but a cut score of 4-5 out of 5 may increase detection of mild cognitive impairment (McCarten et al., 2012). The Mini-Cog™ by itself is not considered a valid tool for this use. For further assessment of mild cognitive impairment, consider administering the Montreal Cognitive Assessment (MoCA) (See *Try This!™ MoCA*).

STRENGTHS AND LIMITATIONS:

The Mini-Cog™ takes up to 3 minutes to administer. The clock drawing component of the test is scored simply as normal or abnormal for the purpose of the Mini-Cog™ and specific scoring rules are included with the tool. More comprehensive analysis of the CDT does not improve detection of dementia and would increase complexity of the currently simple training requirements for clinicians and perhaps decrease its attractiveness as a simple screening tool. The Mini-Cog™ is not strongly influenced by education, culture, or language and it was perceived as less stressful to the patient than other longer mental status tests. The accuracy of the Mini-Cog™ in heterogeneous groups may increase the identification of dementia in populations less diagnosed thereby increasing minority participation in research and improving parity of early treatment.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerRN.org.

2010 Alzheimer's Disease Facts and Figures. (2010). *Alzheimer's and Dementia*, 6, 10. Retrieved November 28, 2012 from http://www.alz.org/documents_custom/port_alz_facts_figures2010.pdf.

Borson, S., Scanlan, J., Hummel, J., Gibbs, R., Lessig, M., & Zuhrt, E. (2007). Implementing routine cognitive screening of older adults in primary care: Process and impact on physician behavior. *Journal of General Internal Medicine*, 22(6), 811-817.

Borson, S., Scanlan, J. M., Chen, P., & Ganguli, M. (2008). The Mini-Cog as a screen for dementia: Validation in a population-based sample. *JACS*, 57(10), 1451-1454.

Borson, S., Scanlan, J. M., Watanabe, J., Tu, S. P., & Lessig, M. (2006). Simplifying detection of cognitive impairment: Comparison of the Mini-Cog and Mini-Mental State Examination in a multiethnic sample. *JACS*, 55(5), 871-874.

Borson, S., Scanlan, J. M., Watanabe, J., Tu, S. P., & Lessig, M. (2006). Improving identification of cognitive impairment in primary care. *International Journal of Geriatric Psychiatry*, 21(4), 349-355.

Ismail, Z., Rajji, T., & Shulman, R. (2010). Brief cognitive screening instruments: An update. *International Journal of Geriatric Psychiatry*, 25(2), 111-120.

Lessig, M., Scanlan, J., Nazemi, H., & Borson, S. (2008). Time that tells: Critical clock-drawing errors for dementia screening. *International Psychogeriatrics*, 20(8), 469-470.

McCarten, J. R., Anderson, P., Ruskowski, M., McPherson, S., Borson, S., & Dysken, M. W. (2012). Finding dementia in primary care: The results of a clinical demonstration project. *JACS*, 60(2), 210-217.

Older Americans 2010 Key Indicators of Well-being. (2010). Retrieved November 28, 2012, from http://www.agingstats.gov/agingstatsdotnet/Main_Site/Data/2010_Documents/Docs/OA_2010.pdf.

Permission is hereby granted to reproduce, post, download, and/or distribute, this material in *its entirety* only for not-for-profit educational purposes only, provided that The Hartford Institute for Geriatric Nursing, New York University, College of Nursing is cited as the source. This material may be downloaded and/or distributed in electronic format, including PDF format, available on the internet at www.hartfordins.org and/or www.ConsultGerRN.org. E-mail notification of usage to: hartford.ig@nyu.edu.

The Mini Cog™

Administration:

1. Instruct the patient to listen carefully to and remember 3 unrelated words and then to repeat the words. The same 3 words may be repeated to the patient up to 3 tries to register all 3 words.
2. Instruct the patient to draw the face of a clock, either on a blank sheet of paper or on a sheet with the clock circle already drawn on the page. After the patient puts the numbers on the clock face, ask him or her to draw the hands of the clock to read a specific time. The time 11:10 has demonstrated increased sensitivity.
3. Ask the patient to repeat the 3 previously stated words.

Scoring: (Out of total of 5 points)

Give 1 point for each recalled word after the CDT distractor. Recall is scored 0-3.

The CDT distractor is scored 2 if normal and 0 if abnormal.

(Note: The CDT is considered normal if all numbers are present in the correct sequence and position, and the hands readably display the requested time. Length of hands is not considered in the score.)

Interpretation of Results:

0-2: Positive screen for dementia

3-5: Negative screen for dementia

Sources:

Borson, S., Scanlan, J., Brush, M., Vitallano, P., & Dokmak, A. (2000). The Mini-Cog: A cognitive "vital signs" measure for dementia screening in multi-lingual elderly. *International Journal of Geriatric Psychiatry, 15*(11), 1021-1027.

Borson, S., Scanlan, J.M., Watanabe, J., Tu, S.P., & Lessig, M. (2006). Improving identification of cognitive impairment in primary care. *International Journal of Geriatric Psychiatry, 21*(4), 349-355.

Lessig, M., Scanlan, J., Nazeem, H., & Borson, S. (2008). Time that tells: Critical clock-drawing errors for dementia screening. *International Psychogeriatrics, 20*(3), 469-470.

Copyright S. Borson. All rights reserved. Reprinted with permission.



A series provided by The Hartford Institute for Geriatric Nursing,
New York University, College of Nursing
Site: hartford.ign.nyu.edu | www.hartfordign.org
Care: www.careforolderadults.org | www.ConsultGerPN.org

APPENDIX I

TEMPLATE

TRANSITIONAL CARE MANAGEMENT CHECKLIST

Patient Name _____ DOB _____

Discharge Date _____ TCM End Date _____

Initial contact with patient/caregiver (within 2 days of discharge) Date/Time _____

Mode of communication: Telephone Face-to-face Other _____

Caregiver name and relationship to patient if applicable _____

Notes from initial contact:

Date of face-to-face visit _____ MDM face-to-face visit ___Moderate ___High

Individuals present at visit _____

Diagnoses on discharge

Medications on discharge:

Medication changes/adjustments

Screening during initial visit: **(TCM Screening tool for readmission risk)**

___Age 80 or older

___Moderate to severe functional deficits (HARP>2, Katz>4, Lawton<5) – attach test results

___An active behavioral and/or psychiatric health issue (GDS>5)

___Four or more active co-existing health conditions

___Six or more prescribed medications

___Two or more hospitalizations within past 6 months

___A hospitalization within the last 30 days (excluding most recent)

___Inadequate support system

___Low health Literacy (Single-item health literacy assessment)

___Documented non-adherence to therapeutic regimen

TCM ELEMENTS

Screening	Identification of risk factors
Maintaining relationships	Inclusion of patient and family/caregivers in planning. Aligning plan of care with patient preferences, values, and goals
Assessing/managing	Diagnostic tests reviewed
Assessing/managing	Disease/illness education (include identification and management of worsening symptoms)
Promoting continuity	Home health/continuity of care referrals
Promoting continuity	Coordination of follow up appointment(s) with primary care provider and/or specialists (ensure adequate transportation)
Collaboration	Discussions with other health care professionals
Educating/promoting self-management	Assessment and support of treatment regimen adherence
Assessing/managing	Assessment of self-management and education for self-management

Subsequent contact and method (phone call or face-to-face)

___ Date/details

___ Date/details

___ Date/details

___Date/details

Complications encountered and how they were addressed:

Communications with patient's primary care provider, specialist(s), and other health care team members:

Initial History and Physical:

Chief Complaint: Patient discharged from hospital to home referred for transitional care management

HPI:

ROS

Constitutional

EENT

Neck

Cardiovascular

Pulmonary

GI

GU

Musculoskeletal

Neurological

Skin

Vital Signs

BP _____ HR _____ Resp _____ Temp _____ O2 Sat _____

Physical Exam

Basic appearance

Constitutional

EENT

Neck

Cardiac

Vascular

Pulmonary

GI

GU

Musculoskeletal

Neurological

Skin (include wounds, dressings etc)

Other

ASSESSMENT/PLAN

Disposition of patient after 30 days: