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Use of a Communication Tool to Improve the Perception of Continuity of Care

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This doctoral project, directed and approved by the candidate’s committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

[Signature]

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Date: June 9, 2019

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School of Nursing

Use of a Communication Tool to Improve the Perception of Continuity of Care

A doctoral project submitted in partial satisfaction
of the requirements for the degree of
Doctor of Nursing Practice

by
Annette Lotz

June 2019
Dedication

I want to dedicate this paper to my family and friends who have stood by my side through the trials and tribulations of my educational career. I would not have been able to achieve my dream without your unwavering support and dedication.

To the patients of the different skilled nursing facilities I have had the pleasure to work with, thank you for showing me how rewarding skilled nursing is. I hope, through this paper and continued work, to leave an impression that will have a positive outcome for the care provided to you and your family members. You are the reason for this paper.
Acknowledgments

I want to thank the excellent faculty members of Abilene Christian University for the patience and perseverance they have shown throughout the course of this program. Your dedication to the nursing profession has made a positive impact on my educational career. I feel honored to have been allowed the opportunity to study under your excellent leadership.
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Abstract

Inadequate or incorrect communication during transfer from skilled nursing facilities leads to misunderstandings about patient care needs, jeopardizes patients’ trust in the health care system, and leads to poor clinical outcomes. Due to gaps in communication from one health care setting to another, it was essential to determine if a patient-centered discharge tool would improve patients’ perception of continuity of care. The purpose of the study was to implement a patient-centered tool that would help improve the information needed at the time of discharge from a skilled nursing facility. Roy’s adaptation model supports the relevance of effective communication in the patient handoff process in a qualitative research methodology. Through phone interviews with 137 discharged patients, I asked all questions from the Perception of Continuity Tool developed by Chao to determine patients’ perception of continuity of care. If patients chose to stop the interview at any point, the information collected as classified was invalid. The findings of the study revealed that while the patient-centered communication tool appeared to improve patients’ perception of continuity of care, a statistically significant difference was not determined. This research is vital to implementing a better discharge communication tool to address reductions in medication errors, potentially improving patients’ perception of continuity of care and increasing the trust in health care. Further research with a larger sample size is needed to determine if a patient-centered communication tool can improve the perception of continuity of care.

Keywords: patient, health care facility, patient transfer, discharge continuity of care
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Chapter 1: Introduction

The utilization of effective communication is essential in the handoff of a patient from one health care setting to another, especially when patients discharge back to the community. A communication tool for all providers would provide the necessary information to meet patient care needs and expectations. A communication tool would help to ensure that trust and commitment remain intact, and the receiving facility or agency would be prepared upon patient arrival. Discharged patients from skilled nursing facilities (SNFs) need to feel that the continuity of care continues even after they are back in their homes and back in the care of their primary physicians, especially if they temporarily require home health care to make a successful transition home.

Problem

Excellent verbal and written communication skills add to the overall well-being of patients seeking medical care (Starr, 2015); this is especially true when a patient is discharging home. These communication skills are essential in ensuring patients’ perception of continuity of care remains. One piece of information missing at the time of discharge can lead to poor health outcomes. While designing an appropriate intervention for hospital and SNF transitional care and reduce rehospitalization, a process for receiving patients must be clearly defined (King et al., 2013).

According to Leonard, Graham, and Bonacum (2004), high-quality and safe patient care requires effective communication. Traditional communication tools used in the discharge process from SNF to home have lacked important information, such as when no health care information is sent to the patient’s primary physician. Communication, education, and providing
information on medications, information on durable medical equipment, and services in the community are all essential to the discharged patient (Grimmer & Moss, 2001).

**Background**

King et al. (2013) found that the communication process used in the transition to an SNF had not been discussed at length, and since nurses play a primary role in establishing care in an SNF, this is a crucial factor to consider. Communication has a tremendous impact on the care provided to patients in SNFs. Elderly patients expect the providers they trust to know what has happened. Unfortunately, health care providers often do not communicate effectively with one another.

King et al. (2013) stated that even though there is good communication from hospital to primary care physicians at discharge, there has not been any research on SNF systems or the nursing process on consequences in the transition of care quality. The lack of research has a significant impact on return to hospital rates since a primary predictor for readmission within 30 days to the hospital is discharge to an SNF. Further research on the entire process of discharge is imperative to improving the perception of continuity of care and also to preventing further hospitalizations.

The quality of information frequently sent with a discharged patient is one of the main barriers at discharge, according to King et al. (2013). Missing or incomplete information threatens patients’ safety, delays care, and causes complaints about the transition process (King et al., 2013). Conflicting information, such as multiple medication lists and inaccurate patient information, further complicates a smooth transition into the next level of care required for the patient. Any type of service taking over the care of a patient, whether it is a hospital, SNF, or home health care agency, requires accurate and timely information.
Purpose

The purpose of the study was to evaluate a patient-centered communication tool, with all patient needs appropriately addressed, that would help to improve patient health outcomes and provide a safe transition back into the community. Effective communication impacts not only patients in SNFs but also those in hospital settings; home health care; hospice; and acute, long-term care facilities, as well as patients visiting their primary care physicians in the community. SNF nurses feel that an intervention that addresses communication could potentially improve care transition (King et al., 2013). Developing and implementing a patient-centered discharge tool would provide SNF nurses with the reassurance that their patient is going home with all the necessary information to continue the care they need.

A lack of training for transitional care for health care professionals limits nurses’ ability to respond in a timely manner to concerns and contributes to the perception of poor quality of care (King et al., 2013). King et al. (2013) recommended further research to quantify the effects of poor communication during discharge both on patients and on the health care professionals responsible for providing care. Sharing information should help with implementing evidence-based interventions developed to support the transition of care (King et al., 2013). Discharge communication can either enhance or hinder the discharge experience. The ultimate goal of good patient outcomes should always be kept in consideration during the transfer of care. Whether a patient decides to go home or to move to an assisted living facility (ALF), the goals remain the same.

Significance

Medicare Advantage (MA) enrollment grew from approximately 6.8 million in 2006 to over 19 million in 2017, with SNFs experiencing a large increase in post-acute care usage...
(Kumar et al., 2018). These numbers alone show that effective communication in the discharge process, either to or from an SNF, will impact a large patient population. Effective communication through the use of a patient-centered communication tool will help protect an already vulnerable population of seniors and provide their caregivers with peace of mind.

King et al. (2013) described consequences to individual patients and their families. Information about weight-bearing status, for example, can cause caregivers to leave the patient in bed for longer than necessary, simply out of fear of causing harm. Dissatisfaction with care can be attributed to a lack of information about the last time pain medication was given (King et al., 2013). Finally, not knowing that a wound vac is needed can cause a wound to deteriorate and cause undue harm to the patient, which increases the stress on nurses trying to provide the best care possible. Communication of valuable information reduces harm and reduces stress for patients, their families, and the staff (King et al., 2013). Also, through effective communication, staff turnover can be reduced and correct supplies utilized, which reduces waste and enhances the image of all health care settings involved in the care of a patient (King et al., 2013).

Effective discharge communication is significant to nursing for several reasons: positive patient outcomes, the financial ramifications of rehospitalization for both hospitals and SNFs, and patient satisfaction scores. Patient satisfaction scores also have a direct impact on hospital reimbursement rates. Patients’ perception of continuity of care is greatly impacted when effective communication services are rendered, as in any other industry. If the consumer is satisfied, word-of-mouth referrals increase the need for services. After all, everyone wants the best health care with the best possible outcome. Good communication equates to positive results for patients and health care professionals.
There are multiple ways that this study can positively impact nursing: first, by improving patients’ perception of continuity of care, and second, by sharing electronic health information with multiple facilities, which improves overall health outcomes for patients. This wide variety of information establishes continuity for individual care and transitions from one care setting to another. Also, the goal of the triple aim is carrying out three primary components: developing the right support system for the management of the population, controlling the health care services for the population size, and developing an education program that will support the work over a defined period.

**Nature of the Problem**

The problem of interest in this project was that the communication methods currently in use do not always ensure that health care providers know the critical patient information. Lack of communication causes delays in care and insufficient services or staff to meet patient needs. The goal of this study was to survey patients discharged from four SNFs in central Florida to compare the traditional discharge form with a patient-centered discharge form and the impact on patients’ perception of continuity of care.

According to Arora, Johnson, Lovinger, Humphrey, and Meltzer (2005), failures in communication between health care personnel have implications of threats to patient safety. Lack of communication is an issue that can be alleviated in the modern age of electronic health records and encrypting software. Health information needs to be able to travel with patients from facility to facility, facility to home, and even state to state when individuals utilize someone other than their primary physician. Often, SNF patients are discharged home without the appropriate information to make the transition successful. Home health agencies, hospice, and primary care physicians do not receive the information required to continue patient care in the
SNF. Through the use of a patient-centered discharge tool, this transition should prove to be more effective. This study is intended to show that through effective and patient-centered communication, the patient will have an improved perception of continuity of care and, in general, more trust in health care. Figure 1 displays the implications of inaccurate or incomplete information for patients.

<table>
<thead>
<tr>
<th>Missing or incomplete information</th>
<th>Care delays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicting information</td>
<td>Patient and staff stress</td>
</tr>
<tr>
<td>Inaccurate information</td>
<td>Dissatisfaction</td>
</tr>
<tr>
<td></td>
<td>Negative image for health care</td>
</tr>
</tbody>
</table>

*Figure 1. Implications of incomplete information.*

**Research Question**

The research question guiding this project inquiry was, In skilled nursing facilities (SNFs) caring for patient ages 65 to 85, does the use of a communication tool adapted for transfer of care over a one-month period improve the perception of continuity of care in comparison to traditional forms of communication used for SNF transfer of care? The hypothesis for this project was discharged communication tools improve the continuity of care when compared to traditional forms of communication in the one-month following SNF discharge. Riva, Malik, Burnie, Endicott, and Busse (2012) defined the following letters in this format:

- Population: The gender, age, or other characteristics of the sample for the study (Riva et al., 2012), which in this project were SNF facility patients between the ages of 65 years and 85 years.
- Intervention: The variable of interest or treatment in the study (Riva et al., 2012):
Does the use of a communication tool adapted for transfer improve the perception of continuity of care?

- **Comparison:** The tools used to compare the intervention used for the population (Riva et al., 2012): traditional forms of communication.
- **Outcome:** To determine the effectiveness of the intervention (Riva et al., 2012), which was to improve the perception of continuity of care.
- **Time:** The duration of data collection (Riva et al., 2012) was one-month after SNF discharge.

Using the PICOT format establishes the foundation of clinical inquiry or investigation and also assists researchers in finding the latest literature and evidence to support an evidence-based approach to care improvements.

**Definition of Key Terms**

The key terms used throughout the study are provided to ensure an understanding of significant terminology.

**Continuity of care.** Continuity of care is the way a patient and the care team, which is led by a physician, are involved in the management of health care with a goal being cost-effective while the care remains at the highest quality (Continuity of Care, 2018).

**Discharge.** Discharge is the release from a hospital or other health care facility (Discharge, 2016).

**Patient.** A patient is a person under the care of a licensed practitioner for improvement or protection of health or for decreasing illness, maintenance, pain, or disability (Heschel, 1966).

**Patient transfer.** Patient transfer is moving the responsibility of care for a patient from one facility to another (Dunn, Nayneet, & Klotman, 2013).
**Skilled nursing facility.** A residence for sick or elderly individuals (Nursing Homes, 2013).

**Scope of the Project**

Inclusion criteria for the project were patients 65 years to 85 years of age discharged home from an SNF. Family caregivers of patients who could not make informed decisions were also included in the criteria if the patient was discharged home to their care or to the care of hospice or a home health care agency. Exclusion criteria included patients who had previously participated in the study, were discharged to another SNF, or were discharged to a hospital before being discharged home. Participants were randomly selected to receive either a patient-centered discharge tool or the traditional discharge tool through the roll of a dice. An even number received the traditional discharge communication tool and an odd number received the patient-centered discharge tool. Phone calls were placed to the patients within 1 month of discharge to ask 23 questions from the Perception of Continuity (PC) tool, which has been proven reliable, valid, and specific for the use of determining patients’ perception of continuity of care (Geroldinger et al., 2018).

**Theoretical Framework Discussion**

Roy’s adaptation model was utilized as the theoretical framework to evaluate the relevance of effective communication in the patient handoff process. Beckett and Kipnis (2009) found that teamwork and communication are essential to patient safety and quality of care. According to Nursing Theory (2016), three factors influence the development of this theory: focus, target, and the indication of nursing care. This framework, utilized in many different health care settings (Dewey, 2018), further identifies five elements: person, goal, nursing
activities, health, and environment. Again, this can be utilized in many different aspects but will prove to be relevant for this project of improving communication.

In Roy’s adaptation model, the human system is subjected to stimuli. The individual’s response to the stimuli can be influenced by several different factors: Individuals’ physical condition, their sense of interdependence, their role function, and how they identify themselves within a group all help develop personal coping processes (Rogers & Keller, 2015). These coping processes allow for adaptation to change and can vary from one day to the next, which can result in different behaviors. Adaptation to change is a continual process for improvement.

In this study, how the discharged communication process affects patients’ perception of continuity of care was evaluated. The discharge communication tool was the stimulus for the study, how patients adapt to the type of communication tool was the coping process, and the patients’ perception of continuity of care was the behavior or outcome.

Rogers and Keller (2015) stated that the broad nature of Roy’s adaptation model allows for the development of holistic nursing approaches and theory-based interventions. Adaptation can be measured psychologically, as well as physically. For this study, the psychological aspect was the perception of continuity of care. Discharge information can have a physical impact on the patient’s overall health outcome with either positive or negative results. This study should have no negative patient impact because the information at discharge was not altered in any way; only the way information is communicated was altered.

**Conceptual Framework Discussion**

The variables in this study included the traditional communication tool, which provides very basic information about a patient, such as the medications ordered by the physician, any home health agency that might be utilized, and any special treatments and equipment needed.
The patient-centered discharge tool includes the same information as well as the reason for the stay in the SNF; typically, this is the reason that the patient was admitted to the hospital. Additionally, information about the services that the patient received is listed, such as physical and occupational therapy. Education that the patient received along with follow-up appointment information, equipment ordered, and the name and phone number of a contact person at the SNF are provided.

The participants of the study were patients in SNFs between the ages of 65 and 85 who either discharged home or to an assisted living facility. Patients who were excluded from the study were those who discharged to another SNF or patients that had previously participated in the study. At discharge, the patients were randomly given either the traditional communication tool or the patient-centered communication tool. Informed consent was obtained, and instruction was given regarding a follow-up phone call that the patient would receive a few days after discharge.

Discharge locations, as previously mentioned, were either the patient’s home or an assisted living facility (ALF) that had accepted the patient before discharge. The discharge tools were also provided to home health agencies, assisted living facilities, and the patient’s primary care provider in the community. The objective was to ensure that all health care providers had the necessary information to implement appropriate care and interventions necessary to prevent another hospitalization and improve the perception of continuity of care.

Within a few days of discharge, the patients or their family members received a phone call to ask questions from the PC tool to determine their perception of continuity of care. The hypothesis was that the continuity of care score from the PC tool would be higher than when the patient and caregivers received the patient-centered discharge tool, compared to the continuity of
care score when using the traditional discharge tool. Figure 2 displays the conceptual framework for the study.

**Variables**
- Traditional Discharge Tool
- Patient-Centered Discharge Tool

**Participants**
- Patients of SNFs discharged to home or ALF

**Discharge Location**
- Home
- ALF
- Health care provider

**Figure 2.** A flowchart illustrating the continuity of care conceptualization model.

**Summary**

The purpose of this project was to show how effective communication at the time of discharge from an SNF to home can have a positive impact on patients’ perception of continuity of care. Using the PC tool, discharged patients were interviewed 1 month after discharge to measure their perception of continuity of care and compare the results of a patient-centered discharge tool and the traditional discharge tool. Roy’s adaptation model was utilized to understand how the stimuli of different discharge communication tools impact patients and their coping processes to produce different outcomes.
Chapter 2: Literature Review

A literature review was completed to discover what type of research existed in regard to discharging communication tools and the perception of continuity of care. Through this process, many research articles were reviewed to provide a more comprehensive understanding of the discharge process, communication tools, effects of poor communication, and patients’ perception of continuity of care.

Improving Communication

The literature review was done to provide a better understanding of how improving communication between different health care facilities improved the perception of continuity of care. Through this process, a better understanding was achieved of why this is so important in health care for all patients and their families. Communication is the key in many aspects of care for the patients who seek out the best possible health care facilities to meet their needs. Health care professionals owe it to patients to ensure that all requirements are met no matter if the patient is in a hospital or rehabilitation center, at home with home health, or merely visiting a primary care provider.

Consequences of Poor Communication During Transitions

According to King et al. (2013), more than 5 million patients transition from hospitals to SNFs every year. The communication process used in the transition to an SNF has not been discussed at length. Since nurses play a primary role in establishing care in an SNF, this is a crucial factor to consider (King et al., 2013). To reduce rehospitalization, the design of an effective hospital and SNF transitional care intervention is necessary, and the receiving end of the process must be clearly defined and understood (King et al., 2013).
Nurses have noted many discrepancies in hospital discharge information. Some issues related to discharge include errors with orders for medications and treatments, lack of narcotic prescriptions for pain relief, little to no psychosocial and functional history, and misinformation about the current health conditions of patients discharged (King et al., 2013). Communication deficits require repeated telephone clarifications, create care delays, increase staff stress for the receiving facility, and contribute significantly to the negative image of SNFs (King et al., 2013). All of these inadequacies increase the chance of rehospitalization that could have been avoided (King et al., 2013).

According to King et al. (2013), SNF nurses feel that an intervention to improve communication will also help to improve the care they deliver. Using a nurse practitioner is one example King et al. (2013) provided to help improve communication. As a result, work is currently underway at the national level to standardize information that is shared across all health care systems (King et al., 2013).

**Poor Communication Leads to Poor Outcomes**

Starr (2015) explained that documentation in the nursing notes was not accurately completed, especially about the need for frequent observations. Inadequate communication, such as no public awareness on conditions like sepsis, adversely affects the ongoing management and views of patients (Starr, 2015). Excellent verbal and written communication skills add to the overall well-being of patients seeking medical care (Starr, 2015). Poor communication at the time of discharge leads to poor health care outcomes and needs to be rectified to prevent rehospitalization and to improve continuity of care.
Teamwork and Communication

According to Leonard et al. (2004), to deliver safe and high-quality health care, effective communication is essential. Leonard et al. (2004) argued that communication failures are a widespread cause of inadvertent patient harm. Many factors contribute to communication; first and foremost, doctors and nurses are trained to communicate differently (Leonard et al., 2004). Leonard et al. (2004) noted that because it is common for frail elderly patients to be delivered to the SNF at night, medication errors occur with the availability of anticoagulants, antibiotics, analgesics, and psychotropic drugs. Patients admitted to SNFs comprise a very complex patient group, and incomplete information at night with no one familiar with the patient to help with reconciliation are noted problems (Leonard et al., 2004). Leonard et al. (2004) found that the rehospitalization rate was increasing due to poor communication, and patients ended up where they did not want to be, often in intensive care units.

Transfer of Care Communication

Szary, Sarwal, Boshard, and Hall (2010) determined that safe patient care during transfers depends on accurate information as well as the expertise provided by the facility receiving the patient. According to Szary et al. (2010), the purpose of every handoff is to effectively communicate the patient’s health status, treatment plan, changes in condition, and goals. Szary et al. (2010) noted that a template to enhance communication between providers and facilities at the time of interhospital transfers increased the completeness of health information forwarded with the patient. Wider adoption of this type of practice was recommended by Szary et al. (2010). Health providers should seek additional opportunities to work with existing regional and statewide health organizations to promote and standardize similar best practices on behalf of improved patient care states (Szary et al., 2010).
Collaborative Communication

Beckett and Kipnis (2009) researched to investigate how effective the Situation, Background, Assessment, and Recommendation (SBAR) collaborative communication intervention for best practice. The researchers noted that nurses are instructed to be very precise and describe the health scenario in their conversation, whereas physicians address concerns in short statements and only provide certain details (Beckett & Kipnis, 2009). Quality improvement for fall risk interventions, reduction of medication errors, and improvement of other patient safety concerns are just some of the implications mentioned by Beckett and Kipnis (2009). A limitation of this study was that a period longer than a 3-month time frame was necessary to adequately measure sustained change. A 6- to 12-month time frame provides a broader base of knowledge in practice to measure a sustained change (Beckett & Kipnis, 2009). According to Beckett and Kipnis (2009), SBAR has two main goals. The first goal of this study was the transfer of knowledge and skills to practice through the transfer of evidence. The second goal was improved patient safety, teamwork, nurse satisfaction, and collaboration because of the improvement in communication skills (Beckett & Kipnis, 2009).

Communication Failures

Arora et al. (2005) found that failures in communication between health care personnel implicate threats to patient safety. Therefore, health care organizations’ communication is important but vulnerable to an error during times of handoff from one health care professional to another (Arora et al., 2005). According to Arora et al. (2005), lack of familiarity with the details of the illness and the hospital stay can increase patients’ vulnerability during transition periods, especially errors that jeopardize patient safety.
Arora et al. (2005) noted two significant categories as contributing factors in communication failure: content omissions and failure-prone communication processes. A content omission is a failure to report active medical problems, medications, treatments, and pending diagnostic tests or consults (Arora et al., 2005). Failure-prone communication is defined as a lack of face-to-face communication, which contributes to misinformation (Arora et al., 2005). Limitations to the study included patients and a group of interns limited to only one hospital. A second limitation noted by Arora et al. (2005) was that the findings were subject to the limitations of critical incident interviews. According to Arora et al. (2005), the categorizing of both effective and poor transfers may provide information to help design both educational and system-based interventions to improve the quality of transfers.

**Improving Patient Safety Through Communication**

Dingley, Daugherty, Derieg, and Persing (2008) stated that when health care providers have poor communication skills, the outcome is an increase in medical errors and patient harm. Communication failures have been linked to 70% of sentinel events, according to Dingley et al. (2008). The growing number of studies on safety and error prevention indicate that ineffective communication among caregivers is a significant contributing factor (Dingley et al., 2008). Historically health care facilities have had a hierarchical structure with power differences between physicians and other health team members, which leads to breakdowns in communication, instead of open, safe discussion (Dingley et al., 2008). Lower mortality, higher satisfaction, and lower readmissions rates can be attributed to better communication states (Dingley et al., 2008).

According to Dingley et al. (2008), there are challenges to achieving interdisciplinary education and training. Educating new staff and continuing to integrate communication practices
presents challenges that need to be considered during the early planning phases (Dingley et al., 2008). Dingley et al. (2008) recommended that future research include implementing strategies in different care settings, outpatient clinics, as well as rural hospitals and nonacademic settings.

**Formal Communication Tools**

SBAR was introduced in 2002 to establish guidelines to effectively communicate information about patient care (Stewart & Hand, 2017). Navy personnel created the SBAR to help reduce communication errors that occur during patient handoff. SBAR is a method for communicating critical information effectively and in a timely, concise manner (Stewart & Hand, 2017). Using a standardized format eliminates the question of how the handoff report is given and provides speakers with a method of communication that helps improve their confidence in their ability to submit a useful description (Stewart & Hand, 2017). When SBAR is used as a guide for the exchange of information between physicians and nurses, the gaps in communication between the two are limited, despite the different communication styles that each one uses (Stewart & Hand, 2017). Using SBAR as a structured communication tool for all health care professionals temporarily eliminates the perceived ranking of the health care system (Stewart & Hand, 2017). According to Stewart and Hand (2017), providing SBAR forms alone will not ensure that communication of relevant information has been obtained.

**Hospital Transfers of Skilled Nursing Facility Patients**

Ouslander et al. (2016) noted that for every five patients admitted from the hospital to an SNF, one is readmitted to the hospital within 30 days. Upon review with SNF facility staff, Ouslander et al. (2016) found that most transfers back to a hospital could be avoided. Common reasons for rehospitalization were abnormal vital signs, changes in mentation, uncontrolled pain, respiratory issues, and behaviors that could not be safely managed (Ouslander et al., 2016). An
essential aspect for improvement in the transition of care and in reducing the rehospitalization rate is providing concise information required for the care of high-risk patients in SNFs (Ouslander et al., 2016). Ouslander et al. (2016) argued that ongoing root cause analysis is needed for the patient who transfers back to the hospital within 2 days, 1 week, or 30 days. Ouslander et al. (2016) found that SNF patients who had discharged from a hospital are often transferred back to the hospital within the first 30 days.

Effect of a Multidisciplinary Intervention

According to Vazirani, Hays, Shapiro, and Cowan (2005), patient satisfaction and improving quality of care can be accomplished with collaboration among doctors and nurses and improved communication. Vazirani et al. (2005) noted that little literature is available that describes controlled interventions to enhance the relationship between doctors and nurses. Vazirani et al. (2005) designed a study to compare care management with a multidisciplinary team and the efficacy of a conventional approach. The addition of a nurse practitioner to each of the teams and appointing a hospitalist medical director to the multidisciplinary rounding on weekdays was the intervention for the study (Vazirani et al., 2005).

Vazirani et al. (2005) utilized a survey for the participants to assess the degree of communication as well as the collaboration on the units. Physicians on the intervention unit reported better discussion on the control unit; nurses, however, reported either similar or lower levels of communication with physicians (Vazirani et al., 2005). Vazirani et al. (2005) found a substantial decrease in the length of stay as well as the cost for patients treated on the unit, no increase in the readmission rate, and no reductions in the quality of life or satisfaction from the patient perspective. Vazirani et al. (2005) concluded that multidisciplinary interventions implemented had an impact of improved communication and collaboration among the nurses and
physicians. Medical care has become more complex, which means that collaborative efforts between health care providers will be more critical for achieving positive outcomes for patients (Vazirani et al., 2005). A disadvantage noted by Vazirani et al. (2005) was the difference in perception for physicians and nurses in the intervention unit.

**Discharge Planning**

According to Therivel (2018), the discharge planning process is utilized to help patients transition from one health care setting to another. Improved discharge planning is needed to prevent hospitals and SNFs from being penalized due to unnecessary rehospitalization (Therivel, 2018). Discharge planning typically consists of discussion, planning, training, and patient, family, and referral agency education (Therivel, 2018). Therivel (2018) reported that the desired outcome of discharge planning is for patients to have successful results in the community or the next level of care. A smooth transition for individuals moving between different levels of care and allowing for goals that correspond to the patient’s needs are some examples of why the discharge planning process is so essential (Therivel, 2018). Therivel (2018) noted that some necessary interventions for the discharge process include addressing patient and family education, spiritual needs, durable medical equipment needs, and referral agency preparation. Patient goals should be person-centered and holistic and may, at times, conflict with the desired outcomes of the health care providers (Therivel, 2018). Patients who receive care in multiple settings are at high risk for medication errors, so medication education is critical to ensure a safe discharge (Therivel, 2018).

**Postdischarge Stroke Patients**

Davoody, Koch, Krakau, and Hagglund (2016) reported on the needs of patients after suffering from a stroke. Information and communication technology (ICT) have expanded in
health care because it has a large impact on health care quality and patient participation (Davoody et al., 2016). According to Davoody et al. (2016), ICT is not only a technical development but also an attitude. ICT is a mindset and a different way of thinking and requires networking with global thinkers who are committed to improving health care worldwide. Davoody et al. (2016) had an objective to uncover the information needs for patients who have suffered from strokes by using journey mapping. The three focus groups included patients described as having mild physical, mental, or psychosocial disabilities who were able to live independently in their home and were able to use a computer after giving informed consent (Davoody et al., 2016). Davoody et al. (2016) revealed that patient experiences and information need to be changed at different steps in the process, from the time of the stroke to the transition to care at home. The researchers noted that information was not always consistent, and patients received information from many providers in a varying format, either verbally, on paper, or in web-based sources. These fragmentations caused the patients not to have the basic information necessary to understand their condition (Davoody et al., 2016).

To support patients managing their illness, Davoody et al. (2016) argued that it is important to give them a history of the events that happened during their hospital stay and what the expectations for discharge from the hospital are. Connections between different ICT departments provide the patient with the ability to move between various services and identify the relationship between the different health condition and the medications (Davoody et al., 2016). Valuable tools that can be used to improve the health care for patients include qualitative analysis and journey models (Davoody et al., 2016).
Value-Based Health Care

Elf, Flink, Tistad, von Koch, and Ytterberg (2017) discussed the value-based approach concerning the structure, health outcomes, and payment models for health service and its impact on patients living with chronic conditions. Elf et al. (2017) noted that caregivers and patients need to be included in the process used for creating the expected outcome measures, which through standardization would allow for the evaluation of the certain conditions and a specific level. Elf et al. (2017) argued that new ways to measure quality are necessary to establish the coordination as well as the integration of health services throughout care; in addition, incentives need to be created so that health care providers can share the responsibility for each individual’s health problem. These measures should remain in the entire period of care and are pertinent for improvement of health service delivery (Elf et al., 2017). Elf et al. (2017) concluded that value-based health services for individuals with chronic health conditions and complex needs would continue to be challenging. Relevant outcome measures, if linked with reimbursement systems, would drive development towards higher quality. Therefore, to achieve the potential alignment of health care service delivery and patient-centered care, effective communication must exist (Elf et al., 2017).

Unmet Rehabilitation Needs

Foster, Allen, and Fleming (2014) reported that more health problems, as well as the need for more services and more comorbidities, are some aspects that people with disabilities encounter that otherwise healthy people do not experience. Foster et al. (2014) qualitative research design ensured and contained maximum variation sampling. Discovering how to integrate different perspectives of family members, users, and health care providers was the intended purpose of the analysis (Foster et al., 2014). Limitations listed were the fact that people
with chronic neurological conditions in developed worlds have many health and rehabilitation needs, and the health care system, policies, services, and resources vary (Foster et al., 2014). This study had limited evidence based on the health and rehabilitation services for individuals with chronic neurological conditions, and there was a need for a more identifiable, integrated pathway to address complex needs of this population (Foster et al., 2014).

**Disease Management Programs**

Rijken et al. (2014) noted that disease management programs (DMPs) improved the quality of care for patients with chronic disease. Rijken et al.’s (2014) objective was to take into consideration how patients’ needs can be responded to with the current DMPs, defined in terms of comorbidities, functional problems, and self-management. The management of the chronic disease is what DMPs are designed to for, any chronic medical condition that the patient is dealing with and how the conditions impact their lives and those of their families (Rijken et al., 2014). Health care professionals are often one-sided and focused on only the medical aspect of the disease and forget how the disease impacts the personal life of the patient (Rijken et al., 2014). Rijken et al. (2014) suggested several components for DMPs: physician and patients sharing the decision-making process while also prioritizing goals and options for care and assessing the realistic and acceptable aspects of the nonmedical treatment and preventive behaviors for patients. Another aspect to consider is possible harm of medical interventions, as well as evaluating the patients on medication intake in case of polypharmacy (Rijken et al., 2014). Also, it is essential to closely monitor for limitations from treatments and assess the burden of treatment. Finally, it is crucial to increase social capital through the establishment of relationships with community organizations and different services available to prevent or reduce problems with participation (Rijken et al., 2014).
Enhancing Health Promotion

Hyde and Kautz (2014) stated that physical rehabilitation requires patients and their families to learn the skills and to be educated about the disease or disability management. Evidence-based information-giving and partnership-building communication strategies can be used to help patients with health promotion (Hyde & Kautz, 2014). Information-giving strategies include teach-back, description, diagnosis, instructions, and outlook. Teach-back involves the patient and family repeating back the important points to ensure content knowledge. The description helps to explain what the physician and the nurse can do for the patient. The diagnosis gives patients needed information on the nature of their disease, the extent of the disease, and the way the disease affects the patient and the patient’s family. Instructions could include ideas on how to take medications and resources about diet and exercise programs. The rationale is that the long-term effects of the drugs and the recommendations need to be discussed and understood, such as certain medications, exercise programs, and dietary programs that may be beneficial to the patient. Outlook provides insight into what patients and their families can expect along with the benefits and risks—information that should include possible adverse side effects of treatments (Hyde & Kautz, 2014).

Managing a chronic disease or disability requires building a partnership between the patient and the health care provider and is a relationship built on trust and mutual understanding (Hyde & Kautz, 2014). Agreements are conditions where a patient’s needs are met by either a nurse or physician providing information, medication, help, or a new referral. Lifestyle changes along with treatment options are both examples of how patients and their families should be involved in making decisions about care (Hyde & Kautz, 2014). Partnership-building and agreements are separate ways to get patients and their families to participate in the care, and both
are necessary for open communication and to help improve the patient’s perception of continuity of care (Hyde & Kautz, 2014).

Hyde and Kautz (2014) concluded that physicians, nurses, and other health care professionals should spend time daily using the evidence-based practices of sharing information, building strong partnerships, and teaching to improve patient relationships. When discharged patients and family members can explain how the medications work, the importance for a lifelong change, the importance of regular follow-up visits with their primary health care provider, and the benefits of changing to a healthier lifestyle, the perception of continuity of care increases. For patients and their families to have faith in the health care system they choose, open and honest communication is necessary. Using the described strategies will help health care providers meet the needs of patients and their families (Hyde & Kautz, 2014).

**Understanding Inpatient Rehabilitation**

Gill, Dunning, McKinnon, Cook, and Bourke (2013) remarked that criticism of health care providers occurs because health care systems are designed for the convenience of health care providers, not the needs of the patients. Patient-centered care is recognized as an essential part of high-quality health care. Participants in Gill et al.’s (2013) study were patients and family members who had participated in an inpatient rehabilitation center (IRC). The IRC provided inpatient rehabilitation to four main types of patients: orthopedic patients, amputee patients, neurology patients, and geriatric patients. Gill et al. (2013) collected data through focus groups in two phases, each one year apart, and included a pre-post evaluation. Participants were asked to bring up any topic they considered important or relevant to the rehabilitation experience (Gill et al., 2013).
Several key themes emerged: staff attitudes and how they behaved, getting to know the staff, utilizing the time and facilities in the rehabilitation center, the physical environment and how it impacted the daily routine, and managing the complex needs of the patients (Gill et al., 2013). Participants of the study reported that the quality of the communication as well as the timing of communication, including nonverbal communication, was very important. Patients felt the health care staff were bustling; consequently, the patients were less likely to tell the staff their needs or ask for assistance (Gill et al., 2013). Even when the workplace is busy, patients need to have plenty of opportunities to express their needs without feeling as if they are a burden to the staff. Communication, both verbal and nonverbal, has a significant impact on the quality of care received (Gill et al., 2013). Gill et al. (2013) concluded that six themes are essential for patient-centered care, including effective verbal and nonverbal communication.

Factors Influencing Rehabilitation

Koh, Barr, and George (2014) explored obstacles that kept patients from continuing their rehabilitation after discharge home from the hospital. In this qualitative study, Koh et al. (2014) conducted phone interviews and used an inductive thematic analysis. The study included interviews with 31 stroke patients discharged from the hospital after inpatient rehabilitation. Koh et al. (2014) discovered five themes of barriers for post-discharge stroke rehabilitation, access to rehabilitation services, a delay in discharge planning, family members’ opinions and actions, unrealistic or unmet expectations, and the idea that rehabilitation is easy. To briefly touch on the theme of a lapse in discharge coordination, some patients were missed due to unnoticed gaps in the discharge process and were left waiting for follow-up rehabilitation services. Inadequate follow-up may have been a cause for the flaw in the delivery of care (Koh et al., 2014).
Koh et al. (2014) further stated that a clearer understanding of rehabilitation services by patients and their caregivers should be established to encourage participation in therapy recommendations. Participants had little knowledge of the rationale behind each intervention strategy; therefore, clinicians needed to be comfortable with their role as educators and to provide therapy information that is delivered as a reinforcement of the rationale of therapy to patients (Koh et al., 2014). The right information can help caregivers feel empowered and involved in decision-making.

**Poststroke Information**

Roy, Gasquoine, Caldwell, and Nash (2015) stated that literature routine information for stroke survivors and their families is needed; however, the best way is still unclear. Roy et al. (2015) conducted a descriptive survey that used a mixture of methods to discover what information stroke patients and their families need. Items identified included timeliness of information, current best practices, appropriateness and accessibility of services, and gaps in information. The study consisted of four questions that asked about the information and resources that were provided, how the education was provided, preferences for how information was provided, and what, if any, barriers or lack of knowledge existed (Roy et al., 2015). Nineteen individuals from 13 families, as well as 23 health professionals, participated in the survey.

Roy et al. (2015) revealed that information was most provided explicitly by the Stroke Foundation, and teaching strategies revealed that ongoing assessment of family needs and personalized information for specific families was necessary. Participants reported that excellent communication skills were important, as well as effective information. Roy et al. noted gaps and omissions in information provisions. Roy et al. (2015) concluded that information that was
appropriate for post-stroke patients was problematic for most families in regard to the quality and timeliness and was made worse due to the nature of the health problem, which included shock and adjusting to the change in family dynamics. Health professionals recognized the restrictions in resources, time, and funding, along with the need for timely, quality information provisions post stroke (Roy et al., 2015). Specific information needs for stroke families are often overlooked.

**Effectiveness of Rehabilitation**

Larsen and Pedersen (2016) conducted a quasi-experimental study on the effectiveness of individual rehabilitation on health. The researchers studied the effect of rehabilitation plans that were prepared for individual patients based on health status. Larsen and Pedersen (2016) found that for heart failure patients, a large part of the treatment and rehabilitation was medical treatment along with lifestyle changes based on self-management and patients’ compliance with the plan. The study included patients from cardiac units at two hospitals. To be included in the study, patients had to be 18 years of age or older and diagnosed with mild to moderate heart failure (Larsen & Pedersen, 2016). Excluded from the study were patients who did not understand the information and patients diagnosed with neurological deficits (Larsen & Pedersen, 2016). Limitations to the study included randomization of the patients; in addition, blinding of the intervention was not possible due to the nature of the responses. A strength of the study was the validated tool used among people with chronic disease. Larsen and Pedersen (2016) concluded that there was no significant impact from a systematic intervention for patients with heart failure 3 months post discharge.
**Continuity of Care**

Geroldinger et al. (2018) discussed how to quantify the quality of care and found several popular choices, such as the Sequential Continuity Index, Usual Provider of Care Index, Sequential Continuity Index, or the Continuity of Care Index (COCI). The results of the study suggested that researchers working with the COCI need to explicitly state which types of medical professions are going considered (Geroldinger et al., 2018). The researchers did not indicate an association between primary COCI and mortality for diabetic patients (Geroldinger et al., 2018).

Ensing, Koster, van Berkel, van Dooren, and Bouvy (2017) reported that the transfer of care for a patient from hospitals to primary care physicians and back is an aspect that has a higher risk for potential harm to patients. Medication reconciliation, defined as the procedure for obtaining an inclusive and recent list of each medication for the patient from another facility, also contributes to high hospital readmission rates (Ensing et al., 2017). Ensing et al. (2017) found evidence to support incorporating a pharmacist in the admission to the hospital, as well as the hospital discharge process and after-discharge process in the community, which could substantially benefit the perception of continuity in care. The three top categories with problems, classified by age, ward type, and the number of prescribed medications, include the need for educating patients, problems with prescriptions from an administrative aspect, and medication discrepancies (Ensing et al., 2017). Although medication reconciliation has been mandatory for many years, more than 90% of prescriptions at discharge have led to problems with perceived continuity of care (Ensing et al., 2017).

Shulman (2018) noted that a true continuum of care has three characteristics: philosophical compatibility between programs, a seamless transfer from one level of being to another, and patient information between standards of care delivered timely. A continuum of
care provides multiple providers in some predetermined arrangement that facilitates movement through the continuum, which becomes more difficult if providers are not in the same geographic area (Shulman, 2018).

Elderly individuals residing in long-term care facilities have high rates of multiple comorbidities; therefore, comprehensive coordinated care can benefit this population (Marshall et al., 2016). The Primary Care of the Elderly project conducted in 2006 was a study of long-term care in several countries (Marshall et al., 2016). A new model of care called Care by Design (Marshall et al., 2016) was implemented. The goal of the Care by Design project was to coordinate primary care while trying to increase access to the informational and relational continuity of care (Marshall et al., 2016). Marshall et al. (2016) found that after implementation of the Care by Design project, there was a decline in both 911 calls and average transfers for long-term care facility residents, and there was an improvement in the informational and relational continuity of care for the residents of the long-term care facilities. Marshall et al. (2016) noted a need for studies on different aspects of care, such as end-of-life care, as well as care for residents with dementia or those who are frail, along with issues regarding polypharmacy.

Donaldson (2001) revealed that an essential aspect of an adequate health care delivery system is continuity of care. Continuity of care has an inherent meaning: a stable relationship with a physician and an individual patient. Donaldson (2001) proposed a hypothesis that continuity is a way for facilities to increase desired health outcomes and prevent the loss of patients.
Measuring Continuity of Care

According to Hill, Twiddy, Hewison, and House (2014), long-term health conditions present challenges for health care providers in countries across the world, are the “cornerstone of care,” and are an essential aspect of general practice (p. 3). The Chao (1988) PC scale explains continuity contract in a bipartisan association between patients and their health care providers concerning patients’ dependence on the physicians and physicians’ obligation to the patient (Hill et al., 2014). Section 1 of the Chao scale assesses the care process, and Section 2 of the scale determines the relationship aspect of continuity (Hill et al., 2014). Hill et al. (2014) found that patients with multiple comorbidities and long-standing medical conditions sought the care of numerous specialists at various intervals, and the specialist may send information separately about the patient’s management to the primary care physician. Providing holistic, high-quality, and continuous care in a complicated health care system can be very difficult at times, especially if the patients have both mental and physical health issues (Hill et al., 2014). Hill et al. (2014) noted that medical records could get misplaced or be unavailable when care changes to different sectors of the health care system, which presents challenges to the multidisciplinary team.

Triple Aim

The Institute for Healthcare Improvement (IHI, 2019) developed a framework for care of communities and populations through three dimensions: improving the patient experience of care (i.e., satisfaction), improving the health of population groups, and reducing the cost of health care. This framework is known as the triple aim. Whittington, Nolan, Lewis, and Torres (2015) reported that the triple aim requires carrying out three primary components: developing the right support system for the management of the population, controlling the health care services for the population size, and developing an education program that will support the work over a defined
period. Whittington et al. (2015) advised that the successful implementation of the triple aim might reduce health care spending, which under the current business models would have a direct impact on the profit or loss. In measuring the experience of care, Whittington et al. (2015) identified six aims—patient-centered, safe, effective, efficient, timely, and equal care—that also support continuity of care.

**Health Information Technology**

Pinsonneault, Addas, Qian, Dakshinamoorthy, and Tamblyn (2017) discovered that health information technology (HIT) directly impacts continuity of care because patient care information is maintained continuously over time. HIT provides health care providers with a way to share and keep a wide array of patient information, such as care health status, history, rationale for referrals or transfers, medications, allergies, treatments, diagnoses, vital signs, lists of problems, procedures, values, and preferences (Pinsonneault et al., 2017). This wide variety of information establishes continuity for individual care and transitions from one care setting to another. Without electronic HIT systems, the knowledge exists primarily only in the memory of the health care provider who interacts with the patient (Pinsonneault et al., 2017).

**Cost of Poor Continuity of Care**

Hofer and McDonald (2019) explained that continuity of care provides many benefits, including lower frequency of emergency room visits, which reduces unnecessary hospitalization and increases preventative medicine. Lower health care costs for patients with chronic diseases have also been attributed to continuity of care (Hofer & McDonald, 2019). Monetary implications are not the only benefit of continuity of care; patient satisfaction and an increase in primary care provider visits have been noted by Hofer and McDonald (2019).
Yeaman, Ko, and Alvarez del Castillo (2015) stated that continuity of care and the sharing of health information reduce the 30-day readmission rate to the hospital as well as return emergency department visits. Information exchange that is consistent, either with a secure messaging system or HIT, may help reduce readmission rates in both of the previously mentioned settings (Yeaman et al., 2015). Therefore, introducing HIT into SNF settings will improve the continuity of care that patients experience.

**Summary**

There is much information in the literature on the effects of communication and patients’ perception of continuity of care. The literature reveals that effective communication during the patient transfer process is an essential part of nursing care. Communication on patient status, as well as previous treatments and procedures, provides a sound basis to continue the care started in one health care setting in another health care setting. Patients’ perception of continuity shows the level of trust patients have in their health care providers and should increase the customer satisfaction survey results.
Chapter 3: Research Method

Communication at the time of discharge can have either a positive or a negative effect on the health outcome of a patient. A patient-centered discharge tool was compared to a traditional discharge communication tool to determine if a more patient-centered approach would have a positive impact on the patient’s perception of continuity of care. The project design was experimental, which refers to how the participants of the study are allocated to different conditions. It is important to remain objective in this type of design, and the data must not be affected by the researcher (Dahl & Vanucci as cited in Stokes, 2011). Furthermore, when a hypothesis is developed, it is with the assumption that there is already an established truth (Dahl & Vanucci as cited in Stokes, 2011). Randomization by rolling a dice helped to determine which type of discharge tool the patients received, thus preventing intentional overuse of the sample.

Project Design

The project was designed to establish the effectiveness of communication through an experimental design. The project had an experimental design for a few reasons. Some reasons included the development of a hypothesis, the use of both independent and dependent variables, and the fact that the experiment caused a change (Stokes, 2011). The experimental design served to compare the participants and measure the degree of change after the implementation of the patient-centered discharge tool. The patient-centered discharge tool provided information about when the hospitalization occurred, when admission to the SNF occurred, and the patient diagnosis. Included were services provided during the SNF, such as physical and occupational therapy and specialized nursing services. Complete medication reconciliation was involved in the patient-centered discharge tool, as well as any orders for wound care and follow-up appointments. Finally, the patient-centered discharge tool provided a name and phone number of
a nurse for patients to contact if they had any questions after discharge. The research
participants were assigned into two groups. Participants in Group A, the control group, were
discharged with the traditional discharge tool, whereas participants in Group B were discharged
with the patient-centered discharge tool.

Instrument

The Perception of Continuity Tool developed by Chao (1988) was used to assess the
perception of continuity of care post SNF discharge. The term continuity of care is
multidimensional and describes a wide array of relationships between health care delivery
systems and patients, the information that is available, consistency of clinicians, a regular source
of health care, keeping appointments, and the ultimate objective of a seamless transition from
one health care setting to another (Brown University, 2018). Continuity of medical records is
believed to improve outcomes of care by increasing the clinician’s knowledge of essential facts
about a patient and all pertinent information available. The perception of continuity seems to
suggest the sharing of information (Brown University, 2018). This patient perception
instrument, developed by Chao in 1988, is a 32-item tool that asks about the duration and type of
relationship patients have with their physician (Brown University, 2018). The Chao scale
includes 23 questions about the ongoing patient-physician relationship on five dimensions of
continuity: informational, geographic, interpersonal, interdisciplinary, and chronological, with
response categories that use a 5-point scale: definitely false, mostly false, uncertain, primarily
ture, and undoubtedly accurate (Brown University, 2018). All questions are related to aspects of
doctor-patient relationships. The validity of the tool has been reviewed by many board-certified
family practitioners. The tool uses multiple regression, with satisfaction as the dependent
variable, and is practical for all hospitalized patients (Brown University, 2018).
Reliability and Validity

The Chao scale includes 23 questions about ongoing patient-physician relationship on five dimensions of continuity: informational, geographical, interpersonal, interdisciplinary, and chronological, with response categories that use a 5-point scale: definitely false, mostly false, uncertain, primarily true, and undoubtedly accurate, which supports the validity and reliability of the PC tool. Marshall et al. (2016) stated that there is a need for studies on different aspects of care, such as end-of-life care, as well as care for residents with dementia or those who are frail, along with issues regarding polypharmacy, which further supports the validity of the tool.

IRB Approval and Process

The internal review board (IRB) approval process for Abilene Christian University (ACU) was utilized to ensure ethical compliance with research standards. The exempt research request form was completed, and after it was approved by the project chair, the request form was submitted to the IRB for approval. In conjunction with the form that was completed by the primary investigator, the project chair completed an assurance form. A HIPAA-FERPA form (see Appendix F) was completed, along with the letter of support, the permission to use the PC tool, the project consent form, and the form for the protection of human subject research. Once all forms were completed and approved, the IRB granted permission for the research to begin (see Appendix G). Upon successful completion of all graduation requirements, an inactivation request form for IRB approval will be submitted, and permission for the research will be closed.

Interprofessional Collaboration

The research process involved center nurse executives in four different facilities in central Florida. A letter of support (see Appendix E) was collected, providing permission to conduct the project. Advanced registered nurse practitioners provided insight on what
information should be included in the patient-centered discharge communication tool. Other stakeholders in the study included patients and family members involved in answering the survey questions. No other staff within the facilities were involved in the project. In addition to collaboration with the organization, collaboration with ACU faculty helped to ensure all requirements were met, which included the project chair and committee members, the program director, project manager, and the IRB committee members.

Practice Setting

The setting for the project was four different SNFs throughout central Florida that utilized the same traditional discharge communication tool. The reason for using four different facilities was to ensure that a large sample of SNF patients was incorporated into the study. All participants were patients of the facilities who were being discharged home after their recommended skilled nursing and therapy were completed. The patients had stayed in the facility and had rooms assigned where staff would be able to discuss the scope of the project in privacy. After informed consent was obtained, the discharge process continued with no changes that the patients would notice. A die was rolled to determine which type of communication tool would be used at the time of discharge.

Target Sample Population

The target population for this project was discharged patients from SNFs ages 65 to 85. Criteria for inclusion were being discharged home after successful completion of therapy and receiving necessary skilled nursing services. The only exclusion criterion for the project was if a patient had previously participated in the study or had been discharged to another SNF or the hospital. Informed consent (see Appendix E) was obtained with no expressed or implied favoritism. Participants were allowed to withdraw from the study at any point in the process.
without repercussions. A power analysis was conducted to show that a small sample size of at least 150 participants would allow for a 20% incompletion rate for a small to medium effect.

**Risk and Benefits**

Many benefits can be obtained through this research, primarily better patient outcomes through the transition process. Other benefits include a reduction in cost for SNFs and hospitals by reducing the rehospitalization rate, increasing patient satisfaction scores, and enhancing trust in the health care community. Risks were minimal but could include an emotional response when answering questions on the PCS tool or the emotional response of returning home after an extended period away from family. The current discharge process was enhanced, not hindered. All necessary information continued to be available during the discharge process; only the format and manner of communication was changed.

**Timeline**

The project initially started at the beginning of October 2016 with collaboration and communication with stakeholders and continued until the end of December 2018. The project involved the use of a communication tool to improve the perception of continuity of care and involved the 1 month following discharge from an SNF. The tasks and dates of project initiation and completion are listed in Table 1.

**Data Collection, Management, and Analysis**

At discharge, SNF staff provided family caregivers with a copy of the discharge plan with clear instructions about medication, diet, activity, and symptom management. The discharge plan included a telephone number of a contact person for any questions; a current list of all drugs, including nonprescription items such as herbal supplements, with dosages and other instructions; and information about when to schedule an initial post-discharge medical visit or whether the
patient was prescheduled before discharge. If the patient transferred with a referral for home health care services or another facility, the family caregiver was given the name of the home health care agency or facility, the phone number for the receiving agency, educational material, and contact name for the discharging facility.

Table 1

*Project Tasks and Timeline*

<table>
<thead>
<tr>
<th>Task</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem of interest determined</td>
<td>October 2016</td>
</tr>
<tr>
<td>PICO format</td>
<td>November 2016</td>
</tr>
<tr>
<td>Theoretical framework determined</td>
<td>November 2016</td>
</tr>
<tr>
<td>Project consent form submitted</td>
<td>March 2018</td>
</tr>
<tr>
<td>IRB approval received</td>
<td>December 2018</td>
</tr>
<tr>
<td>Conference call with CNE on project, consent form, role, and responsibilities</td>
<td>December 2018</td>
</tr>
<tr>
<td>Consent forms signed</td>
<td>December 2018</td>
</tr>
<tr>
<td>Surveys conducted via phone calls</td>
<td>December 2018</td>
</tr>
<tr>
<td>Data entered into Excel and SPSS analysis</td>
<td>December 2018</td>
</tr>
</tbody>
</table>

All patients who were discharged home were included in the study. Randomization occurred through rolling a die. An even number corresponded to control Group A, which received the traditional communication tool, whereas odd numbers corresponded to Group B, which received the patient-centered discharge communication tool. This process provided an adequate sample size to validate the data collected. Exclusions to the study were patients who discharged to another SNF, patients who readmitted to the facility and had participated in the study, and patients who could not make informed decisions and did not have anyone to answer for them on the perception of continuity of care.
Data collection was completed through phone interviews with discharged patients or the family caregiver after receiving informed consent through the facility’s nurse executive or designee. To collect the necessary information promptly, phone calls were conducted no later than 3 days post discharge. Each participant’s score was written on a copy of the PC tool and assigned a letter and number according to which discharge tool they had received and the numeric value of the phone call for that group. Confidentiality was maintained by not documenting any patient identifiers on the PC tool. To help with compliance concerning answering the call, the discharge patients were informed of the number that would be used for this phone call, so patients would know who was attempting to reach them. The answers to the questions from the PC tool were averaged by a group to use an independent t test in SPSS Version 2.5. The averages were entered into an Excel spreadsheet so that the data could be uploaded in SPSS. Once the data were uploaded into SPSS, the data were then analyzed, and a determination was made on the statistical significance. (See Appendix A for the PC tool.)

Permission was obtained from the developer of the PC tool to conduct the research (see Appendix B). Permission from the regional vice president of clinical operations and permission from the center executive director of the facility where I am employed were granted for researching with discharged patients from the facilities (see Appendixes C and D). A Zoom meeting with an access code provided only to nurse executives who were invited and included as project collaborators for the study was held with all of the center nurse executives to explain their role and responsibility in the study. I explained the consent form to the participants, along with the scope of the project to provide a better understanding of the goal of the study (see Appendix E).
Methodology and Appropriateness

Following IRB approval and subsequent permission from ACU, a system was set in place to randomly assign each patient to a control group. The unit manager assigned to the patient rolled a die: An even number indicated the patient was in the control group, and an odd number indicated the patient was in the experimental group. Randomization occurred at the time the discharge order was written and communicated to the patient or family member. The control group’s discharge process began with the written order, as follows:

- Durable medical equipment ordered.
- Referral to home health sent out.
  - Once accepted, the patients were made aware of the day and time the nurse would arrive at the home.
- Day of discharge.
  - The nurse assigned to care prepared the discharge paperwork.
    - Medication list reviewed with the patient and family.
    - Treatment list reviewed with the patient and family.
    - Follow-up appointments discussed with the patient and family.

The experimental group’s discharge process began with written orders, as follows:

- Durable medical equipment ordered.
- Referrals to home health sent out.
  - Once accepted, the patients were made aware of the day and time the nurse would arrive at the home.
  - The discharge communication form was completed by nursing and provided to the home health agency.
- Day of discharge.
  - The nurse assigned to care prepared the discharge paperwork.
    - Medication list reviewed with the patient and family.
    - Treatment list discussed with the patient and family.
    - Follow-up appointments reviewed with the patient and family.
    - The patient and family received a copy of the discharge communication form.
    - Primary care physician and specialist received a faxed copy of the discharge communication form.

The patient-centered discharge tool provided necessary information for all health care professionals assisting the patient in transitioning back into the community. The form contained specific details on the most recent hospitalization and the admission to the SNF. Patients and their families received therapy information and recommendations. The most recent medications, with dosage, frequency, and last administration time, were listed, as well as the treatment information as necessary. Follow-up appointments previously arranged were listed on the form with the contact information for the office.

The study had an experimental design because the project had a control group that received the traditional discharge communication tool and an experimental group that received the patient-centered discharge communication tool. As mentioned, randomization occurred to ensure that participants had an equal chance of being assigned to either group. Keeping participant variables to a minimum was important, so by using similar age requirements and only using patients discharged home, this requirement was met.
Feasibility and Appropriateness

The project was conducted at the facility where the primary researcher worked, along with sister facilities within the same company, after expressed written permission was obtained from the regional vice president of clinical operations. The center nurse executives or the primary researcher obtained informed consent from the three other participating facilities. Administration of the PC tool and data analysis were strictly the responsibility of the primary investigator. There was no cost to use the PC tool; permission had been granted for its use in the project. Any cost for copies of the PC tool and the consent form was the responsibility of the primary investigator. A true continuum of care has three characteristics: philosophical compatibility between programs, a seamless transfer from one level of being to another, and timely deliverance of patient information between standards of care (Shulman, 2018). This study was useful in determining the impact a patient-centered discharge communication tool can have on the patient’s perception of continuity of care.

Summary

Effective communication plays a vital role in the discharge process for patients returning home following admission into an SNF. After receiving IRB approval, the PC tool was used to determine the patient’s perception of continuity of care in comparison to traditional discharge communication tools. Using an experimental design was beneficial in the project because of the use of a control group and an experimental group. SPSS Version 25.0 was used to analyze the data from the project and to run an independent sample t test.
Chapter 4: Results

The project was a descriptive, experimental design research study to compare the patient’s perception of care when discharged with either a traditional discharge communication tool or a patient-centered communication tool. The results of the study compare the patient’s perception of continuity of care after discharge with one of the two discharge communication forms. Utilization of the PC tool determined a mean score of each group of patients in the study. SPSS Version 25.0 was used to analyze the data, which did not prove a statistically significant difference between continuity of care and the use of the patient-centered communication tool.

Purpose of the Project

The purpose of the project was to determine if a patient-centered communication tool would statistically improve the patient’s perception of continuity of care. Phone interviews were conducted with patients within the first 3 days of discharge using the PC tool. This process allowed for a consistent approach when asking discharged patients the same questions and then was used to determine an average of each group’s score. If the scores from each group were significantly different, the higher average would show the improvement in the perception of continuity of care and prove the hypothesis. The term continuity of care is multidimensional and describes a wide array of relationships between health care delivery systems and patients, such as the information that is available, consistency of clinicians, a regular source of health care, keeping appointments, and the ultimate objective of a seamless transition from one health care setting to another (Brown University, 2018).

The method used to manage the data was an Excel spreadsheet that included the group name, numeric identifier for the interview for that group, and the mean score for the individual. The data were then uploaded from the spreadsheet into SPSS Version 25, and the mean score
was obtained for the group and analysis. A total of 137 participants signed informed consent forms; however, several participants later declined to complete the survey for various reasons.

**Demographics**

The demographics collected were gender, age, and length of stay in the SNF; however, these were not included in the analysis. The patient population consisted of both men and women, ages 65 years to 85 years, who discharged home following admission to an SNF.

Descriptive statistics were used to identify participants. An independent samples \( t \) test was used to compare the two groups of participants. Each participant’s survey results received an average score, and each group subsequently received an average score. Using SPSS Version 25.0, I used an independent sample \( t \) test to compare the means of the two groups.

Of the 137 participants in the study, 65 were female and 72 were male. The average age of all of the participants was 64.2 years of age, the average age of the female participants was 64.7, and male participants’ average age was 63.7. The average length of stay for all participants was 40.4 days. For females, the average was 43.3 days, whereas the average length of stay for males was 37.8 days (see Table 2).

Table 2

*Average Age and Length of Stay of Participants*

<table>
<thead>
<tr>
<th></th>
<th>Number of participants</th>
<th>Average age</th>
<th>Average length of stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>137</td>
<td>64.2</td>
<td>40.4</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>64.7</td>
<td>43.3</td>
</tr>
<tr>
<td>Male</td>
<td>72</td>
<td>63.7</td>
<td>37.8</td>
</tr>
</tbody>
</table>
Data Analysis

An independent *t* test was used to compare the mean scores from the PC survey for patients who received a traditional or patient-centered discharge communication tool. Of the 137 signed consent forms I received, 113 participants responded. Each survey received a mean score and each group received a mean score. Group B, which received the patient-centered tool (*M* = 3.83, *SD* = .65, *n* = 62) had a higher perception of continuity of care compared to recipients of the traditional tool, Group A (*M* = 3.68, *SD* = .82, *n* = 51). However, this difference was not statistically significant. Because of this, the null hypothesis could not be rejected, *t*(111) = –1.09, *p* = .28. The 95% confidence interval around the difference between group means was –.42 to .12. The difference in the means of these two individual groups was minimal and did not represent a difference that was statistically significant in the two groups (see Tables 3 and 4).

Table 3

**Group Statistics 1**

<table>
<thead>
<tr>
<th></th>
<th>V1</th>
<th></th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4</td>
<td>A</td>
<td>51</td>
<td>3.68</td>
<td>.828</td>
<td>.118</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>62</td>
<td>3.83</td>
<td>.650</td>
<td>.082</td>
</tr>
</tbody>
</table>

Table 4

**Group Statistics 2**

<table>
<thead>
<tr>
<th>V4</th>
<th>Levene’s test for equality of variances</th>
<th><em>t</em> test for equality of means</th>
<th>95% confidence interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>F</em></td>
<td>Sig.</td>
<td><em>t</em></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>4.03</td>
<td>0.047</td>
<td>–1.09</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>–1.07</td>
<td>0.29</td>
<td>–0.15</td>
</tr>
</tbody>
</table>
Question Guiding the Inquiry

The project’s PICOT question was, “In skilled nursing facilities (SNFs) caring for patient ages 65 to 85, does the use of a communication tool adapted for transfer of care over 1 month improve the perception of continuity of care in comparison to traditional forms of communication used for SNF transfer of care?” Analysis of the data did not show statistical significance in the patients’ perception of continuity of care using a patient-centered discharge communication tool. The null hypothesis could not be rejected due to the lack of a significant difference.

Summary

In this project, a patient-centered discharge communication tool and how it might improve patients’ perception of continuity of care were discussed. Analysis of the data suggested that there was not a statistically significant difference in the perception of continuity of care with the use of the patient-centered communication tool and with the use of traditional discharge communication tools. The null hypothesis could not be rejected. Further research suggestions will be discussed in Chapter 5, along with recommendations for SNF nurses.
Chapter 5: Discussion, Conclusions, and Recommendations

The project was designed to help determine if a patient-centered discharge communication tool would have a statistically significant impact on patients’ perception of continuity of care. The PC tool was used within the first 3 days after discharge to survey the discharged patients or their family caregivers to compare the perception of continuity of care with either a patient-centered or traditional discharge communication tool. The two groups of patients did not have a significant difference in the average score; therefore, the null hypothesis could not be rejected. The patient-centered discharge communication tool did not have a significant impact on the perception of continuity of care.

Interpretation of Findings

The use of a patient-centered communication tool during discharge from an SNF appears to have improved patients’ perception of continuity of care. However, the results of the study using the PC tool did not allow for a rejection of the null hypothesis. The group that received the traditional communication tool at discharge had a mean score of 3.67 out of a possible score of 5.0. The group that received the patient-centered communication tool at the time of discharge had a mean score of 3.83 out of a possible score of 5.0. A patient-centered communication tool is one approach to improving patients’ perception of continuity of care. Shulman (2018) found that true continuity of care is characterized by three things: (a) philosophical compatibility between programs, (b) seamless transfers between different levels of care, and (c) timely transfers of patient information between the levels of care.

The research question posed for this project was: “In skilled nursing facilities (SNFs) caring for patient ages 65 to 85, does the use of a communication tool adapted for transfer of care
over 1 month improve the perception of continuity of care in comparison to traditional forms of communication used for SNF transfer of care?” The answer is that further research is needed to show a statistically significant difference between the formal communication tool and a patient-centered communication tool. Alternative interventions for the improvement in communication at discharge could improve the perception of continuity of care. A larger population group that includes more SNFs may show a statistically significant difference in comparison to the relatively small sample group of this project.

**Inferences From the Findings**

The findings of the project that enhance the body of nursing knowledge include the use of alternative methods to convey discharge information. Understanding how patients feel about their overall health care experience plays a large role in determining their perception of continuity of care. Also, for the age group included in the survey, it is necessary to take into consideration their views and opinions on health care providers. Younger generations of patients have a different outlook on how their health care should be handled. The information available on the Internet allows for research of medical conditions before arriving at a health care facility and therefore allows patients to have a more active role in directing their care. Elderly patients, like those in this project, were brought up to not necessarily question their providers, but rather to blindly do as they are instructed and not question the provider.

**Implications of Analysis for Leaders**

This project provides nurse leaders with a better understanding of how patients perceive the continuity of care they receive. Understanding the perception of continuity of care provides many opportunities to educate patients and their families before discharge. Beginning the discharge process at the time of admission not only allows for frequent and better
communication but also allows time for families to prepare for the changes that might need to be made. Stanik-Hutt et al. (2013) discovered that effective care produces an intended result, which is evidence-based practice. Patient outcomes influence both the structure and the processes of the care and are the measure of quality (Stanik-Hutt et al., 2013).

**EBP Findings and Relationship to DNP Essentials (I–VIII)**

**Essential I: Scientific underpinnings.** Strategies for communicating information that build partnerships based on evidence can be used to help patients with health promotion (Hyde & Kautz, 2014). Effective communication at discharge and a tool to improve communication not only support the scientific underpinnings but build a strong partnership between all health care professionals and health care facilities. Effective communications provide a sound basis to develop and improve existing relationships.

Rogers and Keller (2015) stated that the broad nature of Roy’s adaptation model allows for the development of holistic nursing approaches and theory-based interventions. In this study, how the discharged communication process affects the patient’s perception of continuity of care, is evaluated. The discharge communication tool was used as the stimulus for the study; how the patient adapts to the type of communication tool is the coping process, and the patient’s perception of continuity of care is the behavior or outcome.

**Essential II: Organizational and systems leadership.** Garrity, Longstreth, and Alwashmi (2016) suggested that key operational processes that support continuity of care include mentoring, leadership, professional development opportunities, and hiring practices. The use of a communication tool in the discharge process allows for areas of opportunity to mentor new health care professionals on best practices for the discharge process. Also, effective
communication helps leaders to identify gaps in health care and to create or improve upon existing processes.

**Essential III: Clinical scholarship and analytic methods.** According to Lovis et al. (2014), new devices, data sources, and roles for health care professionals are being invented. Tools for effective communication will continue to evolve as the needs of the patient populations change. Health care is an ever-growing field, and as one generation of patients passes away, a new generation develops. Information needs of the future will again evolve as technology evolves.

An independent $t$ test compared the mean scores from the PC survey for patients who received a traditional discharge communication tool or a patient-centered discharge communication tool. However, in the study, the difference was not statistically significant. Because of this, the null hypothesis could not be rejected; therefore, the answer to the research question is that further research is needed to show a statistically significant difference between the formal communication tool and a patient-centered communication tool.

**Essential IV: Information systems and patient care technology.** The answer is that further research is needed to show a statistically significant difference between the formal communication tool and a patient-centered communication tool. HIT directly impacts the continuity of care because patient care information is maintained continuously over time (Pinsonneault et al., 2017). Having a partial view of benefits to HIT provides an opportunity to discover other factors that can influence or enhance the quality of care provided (Pinsonneault et al., 2017). Continuity of care has the potential to be improved with the use of HIT for the simple reason that if all caregivers have access to the same information, the loss of important information would be minimized. As mentioned earlier, loss of medication lists, diagnoses, and
past treatments are just a few areas that could be lessened during transfer if HIT were implemented safely.

**Essential V: Health care policy.** Vinn (2010) discovered that less-than-optimal post-discharge continuity and other gaps in access and continuity of care with the elderly population might lead to a new *old* model of care, known as a house call. Health care, as in most industries, may eventually see the return of past health care practices. Health care professionals need to be able to adapt to the changes in the population and adjust accordingly. Telehealth is a quickly evolving process entering SNFs, and new policies will need to be created to meet the demands and concerns that technology unveil.

**Essential VI: Interprofessional collaboration.** The delivery of health care can be adversely affected by poor interprofessional collaboration (Reeves, Pelone, Harrison, Goldman, & Zwarenstein, 2017). Health care professionals must establish open lines of communication. To meet the needs of one patient, several specialists may be necessary. Comorbidities, such as heart disease, diabetes, and renal disease, are a frequent combination. Complex medical needs require a team of physicians, not an individual practitioner. As health care advances with new treatments, medications, and procedures, the more complex patient needs will become. Health care professionals need to be willing to ask for assistance from peers and have trust to ensure the best possible health care is delivered.

**Essential VII: Clinical prevention and population health.** Prevention and population health occur in almost every health care setting; therefore, having well-trained professional prevention and population health practitioners outside the normal public health care setting is very important (Zenzano et al., 2011). Every SNF has its unique population group, and they often have specialties that develop out of a need from the outside community. Peritoneal dialysis
may only be offered in certain facilities, which may be driven by region or patient population groups. The ability to meet the needs of a specific type of patient allows for better health outcomes and specialized nursing care that can meet the needs of certain patient population groups.

**Essential VIII: Advanced nursing practice.** The advanced nurse’s scope of practice is defined as the promotion of continuity of care (Kobleder, Mayer, Gehrig, & Senn, 2017). Advanced practice nurses must embrace the concept of effective communication by bridging the gap between physicians and nurses, allowing for two different professions to merge and become effective. Physicians learn how to communicate in very specific ways, and nurses have a different communication style. Advanced practice nurses develop into a unique blend of the two professions and aid in the delivery of care. Nurses who pursue higher levels of education will continue to be an integral part of the health care delivery system and will continue to evolve as the needs for patients change over time.

**Recommendations for Future Research and Clinical Practice**

One recommendation for future research is the use of a larger study group, which may show a statistically significant difference. Influences on this study may have been the age group surveyed and the care setting. Research on the possible reduction of sentinel events using a patient-centered communication tool is another recommendation. Finally, the ultimate goal should be an electronic health record system that is consistent at all levels of care and accessible from any health care setting, which should improve communication and the patient’s perception of continuity of care.
Summary

A patient-centered communication tool adapted for SNF discharges did not show a statistically significant improvement in patients’ perception of continuity of care. The PC tool, while relevant and reliable, needs to be used in a larger sample size and over a longer period to determine patients’ perception of continuity of care. Participants included SNF patients in a variety of locations throughout Florida. If the research were extended to included SNFs in more states, it might be proven to be statistically significant. While statistically showing that the perception of continuity improved with patient-centered information at the time of discharge, the improvement was as significant as presumed at the onset of the study.
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Appendix A: Perception of Continuity of Care Survey

1. PLEASE USE 1 THROUGH 5 TO INDICATE HOW TRUE OR FALSE YOU FEEL EACH OF THE FOLLOWING STATEMENTS IS:

<table>
<thead>
<tr>
<th>DEFINITELY TRUE</th>
<th>MOSTLY TRUE</th>
<th>UNCERTAIN</th>
<th>MOSTLY FALSE</th>
<th>DEFINITELY FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

A. If more than one family member needs medical care, we go to different doctors.
B. My doctor often mentions or refers to my past medical problems and treatments.
C. I receive my medical care at more than one location.
D. The doctor has a list of all the medications which I am taking now.
E. I rarely see the same doctor when I go for medical care.
F. My medical care improves when the doctor has seen me before.
G. I have medical problems that the doctor doesn’t know about.
H. My doctor provides care for any type of problem which I may have.

2. PLEASE INDICATE YOUR OPINION OF THE FOLLOWING STATEMENTS, USING:

<table>
<thead>
<tr>
<th>AGREE STRONGLY</th>
<th>AGREE</th>
<th>UNCERTAIN</th>
<th>DISAGREE</th>
<th>DISAGREE STRONGLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

A. I feel that I have an on-going relationship with a doctor.
B. It is difficult to bring up unrelated medical problems with the doctor.
C. I am uncomfortable in discussing a personal problem with the doctor.
D. The doctor knows a lot about the rest of my family.
E. I feel comfortable asking questions of the doctor.
F. The doctor doesn’t know about my family problems.
G. The doctor does not explain things to me.
H. In an emergency, I want my regular doctor to see me.
I. I would rather see another doctor right away, instead of waiting a day or two to see my regular doctor.
J. My doctor provides appropriate referrals to other specialists.
K. My doctor would take care of me if I had to go to the hospital.
L. My doctor would take care of me if I require emergency care.
M. I trust a specialist recommended by my doctor.
N. My doctor would know me by name if we met on the street.
O. I trust my doctor.

Scoring:
The scores for items 1B, 1D, 1F, 1H, 2A, 2D, 2E, 2H, 2J, 2K, 2L, 2M, 2N and 2O are reversed by subtracting from six to convert them, so higher score indicates greater continuity.

Equal weight is given to each item.

The mean score for the 23 items is calculated.

A higher score indicates greater perception of continuity.
to me
Annette,
You have my permission to use the Perception of Continuity of Care survey.
I would like a copy of your completed capstone paper when it is done.
I am attaching the questions, along with the scoring.
Please let me know if you have any questions.
Jason

Jason Chao, M.D., M.S.
Professor of Family Medicine & Community Health
Case Western Reserve University
and University Hospitals Cleveland Medical Center
Appendix C: Permission From Regional Vice President of Clinical Operations

9/14/18

To Whom It May Concern,

Annette Lotz has the permission of Genesis-Orchard Ridge, West Bay, and Lakeside Pavilion Center to conduct research, as it relates to her Capstone Project, at our facilities.

If you have any questions, please contact me by email at __________________________

[Signature]

[Redacted]
To Whom It May Concern,

Annette Lotz has the permission of Genesis-Oakhurst Center to conduct research, as it relates to her Capstone Project, at our facility.

If you have any questions, please contact me by email at [redacted]

David Hunt, NHA
Center Executive Director
Genesis- Oakhurst Center
Appendix E: HIPPA/FERPA Form

ACU IRB # ____________ Date of Approval __/__/____

Date of Expiration __/__/____

HIPAA/FERPA FORM

1. Will you be viewing or collecting private information that is protected by
   HIPAA? ☐ Yes  x No
   FERPA? ☐ Yes  x No

   If yes to either, please describe:

   The information that will be viewed/collected:

   How the protected information will be collected, stored, and for how long?

   Who will have access to the protected information, and will it be disclosed to anyone
   outside of the research team? For HIPAA-protected information, will it be disclosed to
   anyone at a non-covered entity? If the data will be disclosed, describe how it will be
   transmitted securely:

   Please attach the respective HIPAA or FERPA Consent form (in addition to the
   research consent form) in the appendix, unless you request a waiver of authorization
   below.

2. Do you require a waiver of HIPAA or FERPA** Authorization for ☐ the identification of
   potential participants ☐ all research activities? If so, please describe:

   What protected information you intend to view/collect under the waiver:

   Is this the minimum information necessary to complete the research activities?

   Why the research couldn’t be carried out without the protected information and a
   waiver:

   How the use and disclosure of the protected information represents no more than
   minimal risk:

   If and how the data will be coded or de-identified:

   How long will you require access to protected information without consent, and at what
   point will you destroy any coding linking participants to the information collected?

   If a potential subject later declines to consent to participate in the study, describe what
   will be done with the data previously collected:

   Will participants be provided with any additional information after participation/the study
   is completed?

###_PI_HIPAA-FERPA_#####

Version 01/01/2018
☐ The researchers assure that the protected information will not be re-used or disclosed for any other purpose than those described in this protocol.

**FERPA requires** a signed disclosure authorization unless one of the following conditions are met. Please select the appropriate one that applies to this study:

☐ You are only collecting directory Information ([34 CFR §99.31](#))

☐ The study is for, or on behalf of, the institution to either develop, validate, or administer predictive tests; administer student aid programs; or improve instruction. [This exemption requires a written agreement between the institution and the researcher, as per 34 CFR §99.31(a)(6)(ii). Please attach the FERPA Exception agreement in the appendix.]

☐ De-identified records, including the removal of all direct and indirect identifiers. [The data must be de-identified by someone outside of the research team who has a legitimate business access and prior to the research team viewing or receiving the data]
Appendix F: IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 6,

Annette
Department of
Abilene Christian

Dear

On behalf of the Institutional Review Board, I am pleased to inform you that
"Use of a Communication Tool to Improve the Perception of

(IRB# 18-096  ) is exempt from review under Federal Policy for the Protection
If at any time the details of this project change, please resubmit to the IRB so the
whether or not the exempt status is still

I wish you well with your

Sincere

Megan Roth

Megan Roth,
Director of Research and Sponsored