A MODEL FOR DEVELOPING AN OUTPATIENT PALLIATIVE CARE CLINIC
WITHIN AN ACCOUNTABLE CARE ORGANIZATION

by

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To my grandmother Nancy V. DeMoss, in fulfilling my promise to her to help others who are suffering. To my grandmother Wilma H. Sealy, for her financial generosity and her belief in the importance of education. To my mother Karen L. DeMoss RN, who daily displays her gift of caring to everyone she meets and introduced me to the art of nursing. To my husband, daughter and family for their sacrifice and support during my endeavor. To my Heavenly Father for giving me the passion and desire to help those in need - to Him be all the glory.
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ABSTRACT

The purpose of this practice inquiry project is to create a model for implementing an outpatient palliative care clinic within an organization of healthcare providers who participate in shared savings for Medicare patients, also known as, an accountable care organization (ACO). The goal of this project is that it can be used by future health care administrators to successfully create and implement an outpatient palliative care clinic. The philosophical nursing foundation for palliative care is discussed to set the groundwork for the model proposed. The benefits of palliative care nursing for patients, families and the ACO are discussed to support the importance of opening an outpatient palliative care clinic. A step by step model has been developed and presented on how to plan and implement an outpatient palliative care program. Tools have been proposed to help successfully and effectively create, implement and evaluate outpatient palliative care clinics within an ACO.
CHAPTER ONE: INTRODUCTION TO THE PROBLEM

This project inquiry will critically review and synthesize the current literature about outpatient palliative care programs to create a model for an outpatient palliative care program within an accountable care organization (ACO) with implementation guidelines. This project will further define palliative care nursing and create a model and recommendations for development of an outpatient palliative care clinic. Three highlights of this practice inquiry include: description of the characteristics of a quality outpatient palliative care clinic; presentation of evaluation indicators of a quality outpatient palliative care clinic; and discussion of the sustainability of the implementation guidelines proposed.

Definition of Palliative Care

Palliative care is providing symptom management for people with serious illnesses. According to the World Health Organization (Shockney, 2013), the focus of palliative care is to improve the quality of life for patients and their families that are experiencing problems associated with life-threatening illness. Prevention and relief of suffering through early identification, precise assessment and treatment of pain, as well as addressing physical, psychosocial, and spiritual problems are the goals of palliative care. The definition of palliative care focuses on limiting patient symptoms along with improving their quality of life and these acts provide support for patients, families and caregivers (Lederman, 2013). Unfortunately, palliative care has been associated with hospice or “end of life” care and the goals of palliative care are limited to pain management (Shockney, 2013). Palliative care may benefit from being called “quality of life” care. On the same token, palliative care providers may be more attractive to patients if they are presented as “quality of life” coaches (Shockney, 2013) as opposed to providing palliation of symptoms for patients. Palliative care as a philosophy should be
considered a useful tool alongside life-prolonging therapies in the earliest stages of a patient’s diagnosis (Stricker, 2013). Palliative care supports life by supporting the patient’s and family’s goals for the future, such as desire for a cure or life-prolongation, as well as hope for peace and dignity during illness, dying and death itself (Ferrell, 2010).

**Definition and Goals of an Accountable Care Organization (ACO)**

An ACO consists of a group of health care providers whose focus is about providing quality, coordinated health care for the chronically ill. ACOs are reimbursed by the United States Federal government for meeting quality standards and reducing health care costs (U.S. Department of Health & Human Services, 2013). ACO’s are one organization or model of healthcare that the Obama administration is hoping will create more cost-effective, accountable, quality and innovative care. Medicare reimburses an ACO for meeting specific benchmarks that represent quality and cost-effective care. By meeting these performance standards, the ACO will be rewarded (U.S. Department of Health & Human Services, 2013). Currently, ACOs are being formed across the country and many healthcare providers are looking to develop an ACO to take advantage of the rewards for delivering quality, lower cost healthcare (U.S. Department of Health & Human Services, 2013). An ACO must have at least 5,000 Medicare beneficiaries to participate in the Shared Savings program. The shared savings program allows an ACO to participate in additional savings by meeting all quality benchmarks or be held accountable for their losses (U.S. Department of Health & Human Services, 2013).

The quality benchmarks an ACO must meet are coordination of care, patient safety, preventative health, patient/caregiver experience of care received and inclusion of at-risk populations, such as, frail elderly health (U.S. Department of Health & Human Services, 2013). These benchmarks will help providers and the United States health care system be more vigilant
about keeping patients healthy, having better communication from provider to provider and prioritizing safety and quality of care for patients as well as identifying the chronically ill.

History of Palliative Care

Palliative care is a modern concept that has been around for only the past four decades. Throughout history, care for those with end of life needs was given by religious organizations and there was not much attention from the medical community on the importance of “end of life” care (Clark, 2007). A nurse originally documented the focus of care for the dying in the 1950s. In 1974, the term “palliative care” was coined by Dr. Balfour Mount due to the negative connotations of the word hospice in French culture (Loscalzo, 2008).

The 1970s is when palliative care came to the forefront as a legitimate specialty and has gained increasing acceptance as part of quality care over the years. In 1987, palliative medicine was recognized as a subspecialty in general medicine and in 1995 the subspecialty was formally approved (Clark, 2007). The World Health Organization defined the term “palliative care” in 1989 with its most recent version written in 2002 (Clark, 2007). Hospice and palliative care have been tightly linked since their inception. In 1997, the Institute of Medicine released a report on the United States significant deficiencies for end of life care, and in 2004, the first clinical practice guidelines for quality palliative care were released (Loscalzo, 2008). It took until 2006 for the U.S. to recognize hospice and palliative medicine as a subspecialty of medicine and for the first time in 2008 a certification examination was given for hospice and palliative medicine (Loscalzo, 2008).

Currently, there are over 17,000 health professionals certified in hospice/palliative care (National Board for Certification of Hospice and Palliative Care Nurses, 2013). Palliative medicine as a medical subspecialty has just achieved recognition in the last decade but palliative
nursing has been recognized for much longer. The Hospice and Palliative Nurses Association was formed in 1986 with the inclusion of palliative care in 1998 (Hospice and Palliative Nurses Association, 2013). Nurses have had the opportunity to be certified as hospice nurses since 1994, with palliative care being added to the certification exam in 1999. Nurses are a critical aspect to delivering effective and patient centered palliative care. Bakitas, Lyons and Hegel (2009), found that patients who received palliative care by an advanced nurse practitioner in conjunction with receiving oncology care had higher quality of life and higher overall survival rate due to interventions that focused on physical and psychosocial symptom relief.

Dr. Betty Ferrell is a research scientist at the City of Hope National Medical Center who has been very influential in palliative care, quality of life and pain management (City of Hope, 2013). Her advocacy for nurses and the nursing profession in palliative care has facilitated advancements in the understanding and quality of palliative care given to patients. Nursing education in palliative care is vitally important as nurses spend the most time at the bedside with patients and their families (Ferrell, 2010). Support for palliative care education will improve quality of life for patients suffering from life-threatening illness (Ferrell, 2010). Nursing as a profession has many unifying characteristics and contributions it has provided to palliative care. For example, five elements of nursing care for dying patients include challenging paradigms of care, creating expertise and knowledge for palliative care, nurturing a nursing presence in palliative care, precise attention to the body and reliving symptoms and integration of spirituality as part of the end of life experience (Ferrell, 2011).

One challenge is that there is not an abundance of palliative certified providers (physicians or advanced nurse practitioners) despite the need for their expertise and knowledge in this growing field (Shockney, 2013). In 2010, the American Academy of Hospice and
Palliative Medicine reported that there were about 4400 hospice/palliative certified physicians in the United States and that most of these physicians practiced part time. There is estimation that 11,000 palliative care physicians would be needed full time to staff hospice and hospital based programs at an appropriate level (Lederman, 2013). This provides a golden opportunity for advanced nurse practitioners to alleviate the workload that has been projected and display their nursing knowledge that is hand-tailored to successfully provide palliative care. This reveals that palliative care is a new and critical area of healthcare that needs to be further explored by the medical and nursing community alike. Palliative care holds a special place within the clinical and philosophical realms of nursing knowledge.

**Goals of Palliative Care**

The goal of palliative care is to improve the patient’s quality of life through symptom relief and management. According to the National Consensus Project for Quality Palliative Care (National Consensus Project for Quality Palliative Care, 2009), the goal of palliative care is to relieve suffering by providing the best quality of life for patients and their families and is not contingent on what stage of disease or their need for other therapies are. The National Consensus Project for Quality Palliative Care has created clinical practice guidelines for delivering quality palliative care. There are eight domains of care that have been identified as evidence based practice guidelines for palliative care programs. These eight domains include structure and process of care, physical aspects of care, psychosocial and psychiatric aspects of care, social aspects of care, spiritual, religious, and existential aspects of care, cultural aspects of care, care of the imminently dying patient, and ethical and legal aspects of care. In healthcare, clinical practice guidelines serve as an accepted method for encouraging quality, consistent and comprehensive care (National Consensus Project for Quality Palliative Care, 2009).
Currently there has been no comprehensive list of quality indicators developed in the United States. An increase in development and publication of quality indicators for palliative care has occurred within the past four years, however, there is still a need for detailed methodological specifications (Roo, 2012). Although comprehensive specific quality indicators have not been created, consensus has been reached on essential properties of quality indicators. They need to be scientifically valid, sensitive, void of putting extra burdens on patients, applicable, multidimensional, related to clinical practice, beneficial to the communication within the team and contributory to evaluation of successful therapy compared to that in other settings (Pastrana, 2009). Simply relying on patient satisfaction surveys to accurately measure quality of care can be problematic and may not result in increased quality of care (Aspinal, 2003). Other barriers to implementing quality palliative care also include an expanding population of older adults that will need palliative care along with a decrease in workforce to provide quality palliative care (Grant, 2009). Through creation of outpatient palliative care clinics, utilization of advanced nurse practitioners to deliver palliative care services and development of quality indicators, these barriers to palliative care will decrease over time.

What makes palliative care different and unique compared to other specialties of healthcare is the integration of several disciplines that allows personalized, holistic care to be given to the patient. Formation of a palliative care multidisciplinary team alongside other specialists is ideal to maintain an appropriate care setting, manage symptoms and provide support for patients (Lederman, 2013). Integration of specialists to form a team is being increasingly recognized as an essential component of palliative care (Meyerhardt, 2013). Every member of a multidisciplinary palliative care team has a special skill set and foundational knowledge that will benefit palliative care patients along with reducing the burden of work of
each team member (Stricker, 2013). The types of disciplines involved on a palliative care team outside of direct patient care providers include social workers to help with financial concerns and patient transitions (transferring to hospice, etc.) counseling services to include grief counseling, physical therapists to help patients maintain functional mobility, occupational therapists to aid with activities of daily living, dietitians to facilitate optimal nutrition and pharmacists with knowledge in palliative medicine (Lederman, 2013). A goal of the palliative care team is to follow the patient throughout their disease trajectory (Fairman, 2013) and eventually they can be a fundamental health care provider to facilitate the patient’s transition to hospice care when that time arrives (Lederman, 2013).

Palliative care decreases the inappropriate use of medical interventions, lowers pain and distress from unwanted symptoms, increases survival (in certain cancers) and potentially improves survival of family caregivers after patients have passed away (Lederman, 2013). Patients and families notice a benefit from palliative care through increased information and communication, better access to home care services, more emotional and spiritual support, increase in well-being and dignity, increased care at time of death, perception that the patient received all the treatment he/she wanted and that the patient never received unwanted treatment, facilities of choice for care were granted and better pain and PTSD symptom management resulted (Casarett, 2008).

Palliative care has been shown to create cost savings in hospitals (Morrison, 2008) and the goal is to create cost savings in the outpatient setting as well. There has been a wide spread consensus that palliative care should start sooner rather than later in a patient’s disease trajectory and that consultation with a palliative care provider should start at the time of diagnosis (Muehlbauer, 2012). It has been shown that late referrals to palliative care limit the effectiveness
that palliative care can deliver (Lederman, 2013). A recent study by Dr. Jennifer Temel, notes that patients who were given an early palliative care intervention showed statistically significant improvements in quality of life, depressive symptoms, received less aggressive treatment and an increase in median survival compared to clinical trials of newer and expensive therapies (Temel, 2010). An additional barrier to early referral may be that the patients perceive palliative care as “end of life care” as discussed earlier and by using the term “supportive care” this may help in facilitating an early referral to the palliative care service (Lederman, 2013).

Palliative care should address physical symptoms, emotional symptoms, practical requirements (transportation, financial worries, legal issues, employment and insurance concerns), social needs, spiritual needs and the concerns and needs of the patient’s caregiver and family members (Lederman, 2013). Palliative care involves close follow up to ensure adequate symptom management. One concern by primary care providers is that palliative care will “take away” management of the chronically ill in their practice. Palliative care provides an extra layer of support to primary care providers and is provided alongside curative treatment as well as end of life care (Center to Advance Palliative Care, 2013). Palliative care’s role is not to remove the chronically ill patients from their primary care provider but to complement primary care providers and assist with complicated patients who have several life-limiting co-morbidities to improve their overall quality of life and symptom management. This rings true with specialists as well. For example, the oncologist still has their primary focus on managing a patient’s cancer but a palliative care provider’s job is to manage the physical and psychosocial symptoms and distress the patient is experiencing (Lederman, 2013).
Philosophical Foundations for Palliative Care in Nursing

It is vital to identify how palliative care is incorporated into the art and science of nursing. By identifying a philosophical worldview or paradigm to base the practice of palliative care on, this will allow health care providers to have a greater understanding of the purpose and goal of palliative care. After a philosophical paradigm has been established, the utilization of a nursing theory will provide a solid foundation for furthering aesthetic and empirical nursing knowledge in palliative care.

The purpose of a philosophy is to identify the ontological and epistemological statements about values and beliefs of a discipline (Marrs, 2006). Fawcett’s totality paradigm encompasses the purpose of palliative care. The characteristics of totality take into account that human beings are biological, psychological, sociological and spiritual organisms. Health is not static, but ever changing as health is a process of transformation. Humans work synergistically with nature and continue to strive to have physical, mental, social and spiritual well-being (Fawcett, 2009). This paradigm holds that a person and their environment influence one another and that health is a result of these interactions (Hicks, 2010). Palliative care meets patients throughout the course of their life trajectory. Palliative care has a foundation in providing increased quality of life physically, mentally, socially and spiritually to all patients and their families/caregivers. The paradigm of totality is the hallmark for the foundation of palliative care.

Once a paradigm is identified, it is important that the practice of palliative care be supported by knowledge development. The Theory of Symptom Management by University of California-San Francisco School of Nursing is a middle range theory that has a more specific framework than a worldview paradigm (Marrs, 2006). The Theory of Symptom Management incorporates symptom experience, management strategies and outcomes of symptom
management. A symptom is a change in bio-psychosocial functioning, sensation or cognition. A symptom is whatever the patient is experiencing. This theory’s purpose is to guide symptom assessment and treatment in nursing practice (Humphreys, 2008). Palliative care is the ideal field of nursing practice to promote nursing knowledge in the area of symptom assessment, management and outcomes. A vital component of palliative care is displayed in the theory of symptom management, which is to identify the symptoms, minimize or delay the symptoms and measure the outcomes by reduction in intensity, distress or duration (Humphreys, 2008).

The key to being successful in palliative care is to start at the fundamentals. Incorporating the patient and their families or caregivers, allows for cohesive symptom assessment to correctly manage the patient’s symptoms. Identifying and utilizing the philosophical backings of a paradigm, such as Fawcett’s totality paradigm along with incorporation of The Theory of Symptom Management, is vital to building a model of palliative care and using this model in a new setting. The frontier of palliative care has arrived.

Importance of an Outpatient Palliative Care Clinic

Outpatient palliative care is fairly new to the arena of symptom management in patients with advanced serious illnesses. Outpatient palliative care has shown to reduce hospital readmission (Berger, 2011) and increase quality of life along with better symptom management. Specifically, in the United States with the baby boomer population reaching retirement age and due to advancement in medical technology keeping our aging population alive longer, more people are suffering with chronic life-limiting illnesses, making outpatient palliative care a critical component to extending a person’s quality of life and quality of death. Palliative care can be delivered in several settings such as: hospital; home care; acute palliative care unit; long-term facility; and in the outpatient setting (Lederman, 2013). Inpatient palliative care has served
alongside pain management and hospice care for the last several decades but delivering palliative care in an outpatient setting is a new frontier bridging the gap in community based supportive care (Bull, 2010).

There are only a few outpatient palliative care clinics currently operating in the United States. Unfortunately, since outpatient palliative care is such a new concept and there are so few outpatient palliative care clinics, it has been hard to obtain the research findings necessary to demonstrate to health care institutions that outpatient palliative care clinics can be cost-neutral if not cost-effective due to decreasing readmission rates and improving continuity of care (Center to Advance Palliative Care, 2013). With the United States currently in an economic recession and health care reform in the near future, many medical institutions are hesitant to implement an outpatient palliative care clinic. There have not been enough outpatient palliative care clinics available with long-term data to demonstrate the financial and economic benefits of outpatient palliative care, which has led to a resistance in implementation. Financially, issues of reimbursement have been a major deterrent to implementing an outpatient palliative care clinic and more discussion needs to occur between insurance companies, hospitals and the government.

The issue of reimbursement in palliative care is important to discuss. As ACOs start to be created, the distribution of reimbursements that come bundled (packaged pricing, which is the reimbursement method for ACOs) will have to be assessed and the financial benefits of an outpatient palliative care clinic will need to be reviewed (Meyerhardt, 2013). This is one of the struggles that the model proposed in this project inquiry and encountered during development. However, this model’s business plan has shown that the total cost-savings of an outpatient palliative care clinic provide a reduction in re-admission rates and hospitalizations. This finding
has led to approval of this model for an ACO and is addressed in chapter four under business plan.

Outpatient palliative care could benefit from many areas of research and a model for guiding development of an outpatient palliative care clinic. Currently, there has not been an outpatient palliative care model developed for an ACO. The Center to Advance Palliative Care was the first organization to develop an outpatient palliative care model and to date (June, 2013) is the only model available for starting an outpatient palliative care clinic. Integration of palliative care with other providers lowers cost and reduces visits for patients (Bruera, 2010). It allows for consultations with other specialists as needed to handle specific problems but it is palliative care that addresses most of their concerns when it comes to symptom management and quality of life (Lederman, 2013). The Center to Advance Palliative Care has proposed three separate models for outpatient palliative care clinics depending on the clinic setting (embedded, co-located and standalone)(Barbour, 2012). The model that has been developed in this project inquiry closely relates to the “co-located” style of an outpatient palliative care clinic. The “co-located” style of clinic allows for referrals from several different places but the overhead cost and resources used are sponsored by a “host clinic” (Center to Advance Palliative Care, 2013). This style most closely represents the outpatient palliative care clinic within an ACO and will be discussed in more detail in the following chapters.

**Significance to a Doctorally Prepared Advance Nurse Practitioner**

Current literature has shown that advanced nurse practitioners are excellently prepared for leading and providing care for patients in palliative care (Owens, 2010). Not only are advanced practice nurse practitioners appropriate for delivering care for palliative care patients, but also doctoral prepared nurse practitioners are the best candidates for creating, implementing
and evaluating outpatient palliative care clinics. The educational preparation of a doctorally prepared nurse practitioner match the needs for program development, translation of research and evaluation methodologies. Doctorally prepared nurse practitioners have the knowledge and skill level to successfully run outpatient palliative care clinics, while still maintaining core nursing values such as patient advocacy and quality of care that are the foundation for delivering patient centered symptom management for advanced life-limiting illnesses.

**Summary**

In chapter one, palliative care and accountable care organizations (ACO) are clearly defined and their goals are identified. The history of palliative care is addressed which provides foundational and philosophical knowledge for the role of palliative care in nursing. The importance of an outpatient palliative care clinic is discussed in depth and imparts the significance that a doctoral prepared nurse practitioner can facilitate in operating an outpatient palliative care clinic within an ACO.
CHAPTER TWO: METHODS

This chapter will discuss the method used to conduct a critical review and to synthesize the literature regarding an outpatient palliative care clinic. Model creation and implementation guidelines will be addressed in future chapters. The guideline chosen for this review is *Cooper’s Guide for Literature Reviews* (Cooper, 1998). The reason this guideline was chosen is that it provides a process to conduct a comprehensive and systematic synthesis of research based on scientific principles and rules.

There are five steps in *Cooper’s Guide for Literature Review* (Cooper, 1998). The five steps are: 1) problem formation, 2) data collection, 3) data evaluation, 4) analysis and interpretation, and 5) public presentation. The tool chosen to accomplish step four (analysis and interpretation) will be the *ONS (Oncology Nursing Society) Level of Evidence* scale, which is an adaptation of the work by Hadorn and others, *Rating the Quality of Evidence for Clinical Practice Guidelines* (Hadorn, Baker, Hodges & Hicks, 1996; ONS/Tables). The last tool needed to successfully complete this literature review will be the *ONS PEP weight of Evidence Classification Schema* by Mitchell and Friese (Mitchell, UTD), which presents criteria for what studies should be recommended for implementation into practice, which will be discussed in step five.

**Step One - Problem Formation**

Step one is the initial and a very important stage for any review conducted. Problem formation looks at problem identification, the reason for reviewing the literature and variables of interest (concepts, health care problem, population) (Whittemore, 2005). This project inquiry highlights the problem as a need for a Model for an Outpatient Palliative Care Clinic. The reason for this review is to address the concept of developing an outpatient palliative care clinic within
an ACO and the variables of interest include a health care problem (no current model for an outpatient palliative care clinic within an ACO) and the population (life-limiting chronically ill patients and their families/caregivers). Most of the articles identified refer to various forms and settings of outpatient palliative care clinics. Inpatient and home-based palliative care clinics were not included in this review.

**Step Two - Data Collection**

The rationale of a data collection is to develop an exhaustive, representative and pivotal set of relevant articles (Randolph, 2009). The term data in relation to this project inquiry is specific to the articles identified. It is important to have a well-defined literature review to enhance rigor, dispel biased searches and prevent inadequate results (Whittemore, 2005). Several databases were used in the collection of data for this project inquiry. The databases used to conduct this literature review were Medline (PubMed), Medline (Ovid), CINAHL and Web of Knowledge. The search terms that were used were outpatient palliative care, models, and clinic. The search was given the limitations of 1) full text availability 2) English language, and 3) within the past five years.

Medline (PubMed) initial search yielded nine articles, all of which were journal articles and one that was an evaluation and validation study. Medline (Ovid) was the next database that was utilized. Search limitations that were included were 1) full text availability, 2) English language, 3) within the past five years, 4) human subjects and 5) core clinical journal articles. The subheading that was used was “outpatient palliative care.” This yielded 59 results.

The CINAHL database was searched with the term “outpatient palliative care clinic,” and then a subheading of “palliative care.” The limitations that were used were 1) full text availability, 2) English language, 3) within the past 5 years, 4) human subjects. This yielded
1,394 results. Adding the additional search term “models,” and limiting the results to within the last three years narrowed the search down. This yielded 34 results.

The last database that was utilized was Web of Knowledge. The term outpatient palliative care clinic was used with the limitation of articles written between 2008 and 2013. This yielded 347 results. The search was further limited with 1) English language, 2) full text articles and the additional search term “models.” This yielded 42 results.

The articles located from the database searches will be evaluated in step 3. Step 3 will allow for articles that relate to an outpatient palliative care model to be identified and will also reveal duplicate articles.

**Step Three - Data Evaluation**

The goal of step three is to extract key information and evaluate the information in the articles that met the inclusion criteria (Randolph, 2009). The inclusion criteria for this study involve the outpatient setting; palliative care and models used for outpatient palliative care clinics. It is important to evaluate the quality of data retrieved. Cooper suggests only using “high-quality” data for inclusion in evaluation of the articles found (Randolph, 2009). High quality data are articles that present higher on the rating of evidence scale, are credible, valid and reliable. All articles obtained from step two were reviewed and seven articles were selected to be a part of step 4. The articles that were chosen specifically examined models for outpatient palliative care clinics. Step four will describe the analysis and interpretation of the results found.

**Step Four - Analysis and Interpretation**

The principle of step four is integration of the data and being able to “make sense” about what the data retrieved is telling you (Randolph, 2009). Cooper displays clear steps to accomplish this. According to Cooper, data analysis necessitates that the data…are ordered,
coded, categorized, and summarized to reveal a cohesive and incorporated conclusion to the research problem (Cooper, 1998, Whittemore, 2005). The steps to accomplish this are 1) data reduction, 2) data display, 3) data comparison, 4) conclusion drawing and verification (Whittemore, 2005, Miles & Huberman, 1994).

**Data Reduction**

Data reduction involves coding, extracting and categorizing data. The point of data reduction is to create a valid and reliable coding process to ensure rigor is present (Whittmore, 2005). The articles that have been chosen will be assigned a level on the ONS, *Putting Evidence into Practice* (ONS/PEP) *Levels of Evidence* scale (ONS/Tables) (Figure 1). This scale will allow rating of the data based on credibility (that the data are credible), validity (that the data are valid) and reliability (that the data are reliable). The scale ranks the evidence from weakest (Level 3) to strongest (Level 1).

Level 3 evidence is from qualitative studies, case studies, interviews and professional opinions. Level 2 evidence is quantitative in nature and involves non-experimental studies and systematic reviews. Lastly, level 1 encompasses quantitative data and involves meta-analysis reviews of multiple well-designed controlled and non-randomized studies and experimental studies (Hadorn et al., 1996; ONS/Tables).

Within each level of evidence there are subcategories. There are three level 1 subcategories titled “subcategories 1-3.” Subcategory one includes meta-analyses and systematic reviews involving multiple well-designed, randomized, control clinical trials. Subcategory two includes well-controlled, randomized clinical trials that have adequate sample size (as determined by each specific study) and subcategory three includes well-designed trials that do
not have randomization (pre/post, cohort, single group studies) (Hadorn et al., 1996; ONS/Tables).

There are four level 2 subcategories titled “subcategories 4-7.” Subcategory four includes well-conducted systematic reviews that are from non-experimental designs. Subcategory five includes well-conducted case controlled studies. Subcategory six includes poorly controlled or uncontrolled randomized or descriptive studies. Lastly, subcategory seven involves meta-analyses that show trends not reaching significance, conflicting evidence and published practical guidelines (Hadorn, et al., 1996; ONS/Tables).
**FIGURE 1.** Rating the Quality of Evidence for Clinical Practice Guidelines.

<table>
<thead>
<tr>
<th>ONS Level</th>
<th>Level of Evidence Subcategory</th>
<th>Evidence Source</th>
<th>Strength of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td><em>Research Based Evidence</em></td>
<td>Strongest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meta-analysis or systematic reviews of multiple well designed, randomized, controlled clinical trials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Well-controlled, randomized clinical trials with adequate sample size</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Well-designed trial without randomization (single group pre/post, cohort, time series studies)</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>4</td>
<td>Well-conducted, systematic review of nonexperimental design studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Well-conducted case-control study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Poorly controlled (flawed randomized studies) or uncontrolled studies (correlational descriptive studies)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Conflicting evidence or meta-analysis showing a trend that did not reach significance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Institutes of Health Consensus Report</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Published practice guidelines, for example by professional organizations, healthcare organizations, or federal agencies</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>8</td>
<td><em>Non-research Based Evidence</em></td>
<td>Weakest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualitative designs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Case studies, opinions of expert authorities, agencies or committees</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Reprinted from *Journal of Clinical Epidemiology*, 49, D.C. Hadorn, D. Baker, J.S. Hodges, & N. Hicks, Rating the Quality of Evidence for Clinical Practice Guidelines, 749-753, 1996, with permission from Elsevier.*
Level 3 has only one subcategory. Subcategory eight includes non-research based evidence including case studies and expert opinions (Hadorn, et al., 1996; ONS/Tables).

Once the data was coded, two subgroups were formed; 1) prevalence and characteristics of outpatient palliative care clinics, 2) sustainability challenges of outpatient palliative care clinics.

**Data Display**

The reason for data display is to convert each source found into a visual representation such as a chart or graph, which facilitates depiction and identification of patterns and relationships among data collected from the various sources (Whittemore, 2006). There are two tables that have been developed and are in the list of tables. Each table was based upon a subcategory. For example, Table 1 includes six articles that address prevalence and characteristics of outpatient palliative care clinics. Table 2 includes two articles (one article of the seven identified had research in both sub-categories) that address sustainability challenges of outpatient palliative care clinics.

**Data Comparison**

The reason of data comparison involves identifying relationships, themes, ideas and patterns. Variables that are similar are grouped together and the process of visualization and comparison emerge. Once step 4 was completed, it was determined that out of the seven articles that were originally included, six involved prevalence and characteristics of outpatient palliative care clinics, two involved sustainability challenges of outpatient palliative care clinics, with one article that pertained to both categories.
Step Five - Presentation of Results

The intention of this step involves determining what information will be presented (Randolph, 2009) and what are the recommendations for practice as a result of the literature review. The tool used to classify the data for recommendation is the ONS/PEP *Putting Evidence into Practice Weight of Evidence Classification Schema* by Mitchell and Friese. The *Weight of Evidence Classification Schema* (Figure 3) was created to help with evaluation of a collective body of evidence regarding health interventions for the purpose of making knowledgeable decisions about implementation (Mitchell & Friese, 2009). This tool will be used to differentiate the strength of the data involved in this project inquiry with regard to models for outpatient palliative care clinics.
<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recommended for practice</td>
<td>Interventions for which effectiveness has been demonstrated by strong evidence from rigorously designed studies, meta-analyses or systematic reviews, and for which expectation of harms is small compared with the benefits.</td>
</tr>
<tr>
<td>2. Likely to be effective</td>
<td>Interventions for which the evidence is less well established than for those listed under “recommended for practice.”</td>
</tr>
<tr>
<td>3. Benefit is balanced with harms</td>
<td>Intervention for which clinicians and patients should weigh the beneficial and harmful effects according to individual circumstances and priorities.</td>
</tr>
<tr>
<td>4. Effectiveness not established</td>
<td>Interventions for which data currently are insufficient or of inadequate quality.</td>
</tr>
<tr>
<td>5. Effectiveness unlikely</td>
<td>Interventions for which lack of effectiveness is less well established than for those listed under “not recommended for practice.”</td>
</tr>
<tr>
<td>6. Not recommended for practice</td>
<td>Intervention for which ineffectiveness or harmfulness has been demonstrated by clear evidence, or the cost or burden that is necessary for the intervention exceeds anticipated benefit.</td>
</tr>
</tbody>
</table>

*Note.* Based on the work of Mitchell & Friese (Eaton & Tipton, 2009).

FIGURE 2. Weight of Evidence Classification Schema.

The *Weight of Evidence Classification Schema* is made up of three major components; quality of data, magnitude of outcome and concurrence among the evidence. For example, quality of data gives increased weight to studies such as randomized trials and meta-analyses.
Magnitude of the outcome takes into account a study’s effect size and concurrence among the evidence addresses how confident the researcher is in the findings of the studies (Mitchell & Friese, 2009).

There are six categories for evaluation and recommendation of data for practice within the *Weight of Evidence Classification Schema* and all six categories will be used in this project inquiry. The categories are 1) recommendation for practice, 2) likely to be effective, 3) benefits balanced with harms, 4) effectiveness not established, 5) effectiveness unlikely and 6) not recommended for practice (Mitchell & Friese, 2009).

**Recommended for Practice**

This category involves determining if the interventions are supported by strong evidence from rigorous studies like meta-analyses or systematic reviews. There are few harms expected compared to the benefits (Mitchell & Friese, 2009).

**Likely to be Effective**

This category involves studies whose interventions and evidence are less established than the “recommended for practice” category. These interventions come from well conducted randomized controlled trials, meta-analysis or systematic reviews that have data from fewer than 100 people (Mitchell & Friese, 2009).

**Benefits Balanced with Harm**

This category involves determining if the interventions in the study are beneficial or harmful depending upon circumstances and priorities. These interventions may have adverse effects for the population studied (Mitchell & Friese, 2009).
**Effectiveness Not Established**

This category identifies interventions where there is not sufficient data or the data are inadequate in quality. These interventions may have conflicting evidence or did not reach statistical significance (Mitchell & Friese, 2009).

**Effectiveness Unlikely**

In this category the interventions lack effectiveness and are not well established. These may come from case control studies, or poorly/uncontrolled studies.

**Not Recommended for Practice**

In this category interventions are ineffective or harmful as represented by the evidence. The cost or burden will outweigh the anticipated benefits (Mitchell & Friese, 2009).

**Summary**

In chapter two, a method was identified to synthesize and evaluate the literature. *Cooper’s Guide for Literature Review* (Cooper, 1998), five-step process was used as a guideline (Cooper, 1998). The first step identified the problem as outpatient palliative care clinic in an accountable care organization. In step two, the literature search was conducted with four databases - Medline (Pub Med), Medline (Ovid), CINAHL and Web of Knowledge. Step three resulted in seven articles reviewed. Step four involved ranking the evidence in the literature with the ONS/PEP Level of Evidence Scale (ONS Tables) (Figure 1). This scale was an adaptation of the *Rating the Quality of Evidence for Clinical Practice Guidelines* that was created by Hadorn and others (Hadorn et al., 1996; ONS Tables). The last step was identifying the recommendations for practice using the ONS/PEP *Weight of Evidence Classification Schema* by Mitchell & Friese. The results of the articles reviewed will be addressed in chapter three.
CHAPTER THREE: RESULTS AND MODEL DEVELOPMENT

The results from the data collection for developing a model for an outpatient palliative care clinic within an ACO are presented in this chapter. The two main concepts that will be discussed for developing this type of health delivery model are the prevalence and characteristics of current outpatient palliative care clinics and sustainability challenges within an outpatient palliative care clinic.

Prevalence and Characteristics of Current Models of Outpatient Palliative Care Clinics

Table 1 shows the evidence from articles about the prevalence and characteristics of current outpatient palliative care clinics around the United States. There were six articles that addressed prevalence and characteristics of current outpatient palliative care clinics around the United States. All of these articles are qualitative in nature and are case reports/studies. The nation-wide prevalence of outpatient palliative care clinics is unknown, but approximately 27 outpatient palliative care clinics are present in the state of California (Berger, 2011). The characteristics of outpatient palliative care clinics in the United States and Canada are all very similar. The majority of all outpatient palliative care clinics have been started within the last ten years, function from a half day per week to five days per week and involve a physician, advanced nurse practitioner or registered nurse and social worker.

The main patient illness that all the palliative care clinics treat is cancer. There were no outpatient palliative care clinics that were not part of a larger organization or hospital (Rabow, 2010). Many of the clinics are linked with outpatient oncology offices or share space within the hospital and the inpatient palliative care team.
The average outpatient palliative care clinic would see around 500 patients annually (Rabow, 2010) and all the clinics have grown steadily in the number of patients they see through the years. Most clinics take referrals from the inpatient palliative care team, other specialists (oncologists, cardiologists) and a limited number of clinics take referrals from primary care physicians (Rabow, 2010). Some clinics have their own organization’s hospice care (Bull, 2012) and for these clinics the outpatient palliative care clinic and hospice are closely linked (Siden, 2009).

The majority of funding for outpatient palliative care clinics comes from billing and institutional support, with a handful of clinics having philanthropic support (Rabow, 2010). Every single clinic has noted a positive response from fellow providers, their organization and most importantly, the patients and their family members.

Weight of Evidence Classification Schema

The prevalence of outpatient palliative care clinics is not well known and no study has been conducted for the United States. The characteristics of outpatient palliative care clinics across the nation and into Canada have shown to be very similar in function, delivery and implementation. According to the ONS/PEP Weight of Evidence Classification Schema, based on the results that are presented, suggested that effectiveness has not been established. This is due to insufficient evidence and supports the prediction that there is a knowledge gap within the healthcare community regarding outpatient palliative care clinics. This knowledge gap demonstrates the importance in the development of outpatient palliative care clinics.

<table>
<thead>
<tr>
<th>Author and Year</th>
<th>Characteristics of the Intervention</th>
<th>Sample and Setting Study Design</th>
<th>Measures</th>
<th>Results and Conclusions</th>
<th>Limitations, Flaws, Cautions, Special Training Needs and Costs</th>
<th>Level of Evidence and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wallenstein, D. (2012). Palliative Care in the Patient-Centered Medical Home</td>
<td>Identification of what palliative care is and new concepts on delivery of palliative care</td>
<td>Outpatient pain medicine and palliative care clinic in a primary family medicine office</td>
<td>Data are used from inpatient palliative care, hospital billing, ER use, outpatient services used, admission and discharge data</td>
<td>Small amount of data published on delivery of palliative care. No published data on integration of palliative care into accountable care organizations</td>
<td>The intervention for this study has not been implemented. No specific data were given for preliminary cost effectiveness of an outpatient palliative care clinic within an ACO.</td>
<td>Level of Evidence: III (8) - Expert opinion; non-research based evidence.</td>
</tr>
<tr>
<td>Berger, G., et al (2011). Prevalence and Characteristics of Outpatient Palliative Care Services in California.</td>
<td>First study of kind to address the prevalence and characteristics of outpatient palliative care clinics (OPPC) in California.</td>
<td>California hospitals. Presence of OPPC.</td>
<td>351 acute care hospitals in California. When OPPC were founded. How many patients were seen in the previous year. Patient’s diagnosis. Calculation of staffing level for APN, RN, physicians, social worker, chaplain. Use of analysis variance used for calculation of FTE for staffing.</td>
<td>27 hospitals have OPPC. Most OPPC were owned by nonprofit organization, at a teaching site, have a system affiliation and had an inpatient palliative care program in place. The average OPPC was three years old with half being established in the last 12 months. The average number of patients seen was 197 in 2007. More than half of the patients seen had cancer diagnosis and other common diagnoses were cardiac conditions, dementia, pulmonary conditions and neurological conditions. The mean staffing level was 1.4 FTE, largest portion devoted to RN and APN. OPPC are rare and a new delivery of care. Half of the OPPC’s in California were started within the last year.</td>
<td>Additional research is needed to evaluate quality of care being delivered in OPPC. Results achieved at OPPC sites. Prevalence of OPPC not associated with hospitals. Structures and Processes of care that provide the best outcomes in OPPC’s.</td>
<td>Level of Evidence: II (6) - uncontrolled study correlational descriptive study.</td>
</tr>
<tr>
<td>Author and Year</td>
<td>Characteristics of the Intervention</td>
<td>Sample and Setting Study Design</td>
<td>Measures</td>
<td>Results and Conclusions</td>
<td>Limitations, Flaws, Cautions, Special Training Needs and Costs</td>
<td>Level of Evidence and Comments</td>
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</tr>
<tr>
<td>Rabow, M., et al (2010). Outpatient Palliative Care Practices.</td>
<td>Identification of structural components of national leading outpatient palliative care clinics (OPPC).</td>
<td>Survey Format: 12 outpatient palliative care clinics identified.</td>
<td>12 practices chosen on reputation, geographic diversity, sustainability. Information about physical location, census, primary illnesses seen, referral sources, staffing, funding and data tracking.</td>
<td>11 responses to survey with results from prior year of their clinical operation. OPPC are small in scope, see approx. 500 patients per year for 3 days per week. Typically affiliated with cancer center and primarily see cancer patients. Most practices have physician and APN. Funding through billing revenues and institutional support.</td>
<td>Limited by selection basis. Only from large academic medical centers. Does not include patient demographics or disease specific information. More research needed on clinical impact of OPPC, financial viability and health system outcomes.</td>
<td>Level of Evidence: III (8)- Expert opinion, case studies, non-research based evidence.</td>
</tr>
<tr>
<td>Author and Year</td>
<td>Characteristics of the Intervention</td>
<td>Sample and Setting Study Design</td>
<td>Measures</td>
<td>Results and Conclusions</td>
<td>Limitations, Flaws, Cautions, Special Training Needs and Costs</td>
<td>Level of Evidence and Comments</td>
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</tr>
<tr>
<td>Meier, D. &amp; Beresford, L. (2008). Outpatient Clinics Are a New Frontier for Palliative Care.</td>
<td>Review of outpatient palliative care clinics. Identification of benefits and operational issues in outpatient palliative care clinics (OPPC).</td>
<td>UCSF Symptoms Management Service. Dartmouth Hitchcock Medical Center OPPC. University of Alabama OPPC. Fairview Health System OPPC. Cook County Hospital OPPC. Virginia Commonwealth University Massey Cancer Center. Moffitt Cancer Center.</td>
<td>Referral Source. Type of Staff. Days of Operation. Types of patient seen. Amount of patients seen.</td>
<td>Most of the clinics receive referrals from cancer centers’ oncologist, inpt. palliative care providers and some receive referrals from primary care providers. Many of the clinics run from one half day per week to five days per week. Each clinic has a palliative care physician and many have APN or RN and social worker. Many clinics are based within a cancer center or another outpatient clinic. Initial # of patients seen in a year approx. 250-330. Most common types of patient seen are cancer patients, HIV, and other chronically ill patients. OPPC has potential to save money by better management of care, reduced hospital stay, etc. Operational issues include space, staffing, financials and communication, etc.</td>
<td>No quantitative analysis of OPPC that were studied. Minimal financial costs were addressed as criteria for evaluation.</td>
<td>Level of Evidence: III (8) - Expert opinion, case studies, non-research based evidence.</td>
</tr>
</tbody>
</table>
**Sustainability Challenges within Outpatient Palliative Care Clinics**

Table 2 shows the summary of the articles about sustainability challenges within an outpatient palliative care clinic. The main caveat that was noted within the majority of the clinics was the issue of reimbursement. Currently, the United States has no reimbursement mechanisms that are specific to palliative care. The reimbursement mechanisms that are in place do not provide sufficient financing, resulting in constraint of growth for outpatient palliative care (Bull, 2012).

This causes a challenge to the sustainability of outpatient palliative care clinics within the United States. Two studies, both qualitative and case reports/studies, addressed challenges to the sustainability of an outpatient palliative care clinic. Financially, outpatient palliative care clinics are unlikely to be cost-effective or even cost-neutral solely from visit billing revenues alone (Meier & Beresford, 2008). This is why many of the current outpatient palliative care clinics are supported by a larger institution. For outpatient palliative care to be cost- effective, more research needs to be done to examine the cost-savings that outpatient palliative care brings in the form of decreased readmission rates and decreased ER utilization.

Another sustainability challenge arises with the lack of a concrete business model to integrate an outpatient palliative care model into an existing model of healthcare delivery (Bull, 2012). Many organizations do not run outpatient palliative care programs as a profitable business (due to limitations such as inadequate staffing, overexpansion of resources and inability to manage patient transitions in care accurately). This has led to high program costs with eventual abandonment of the program due to decreased available finances (Bull, 2012). Unfortunately, with the current health care policy in place and method of reimbursement, it is suspected that
outpatient palliative care programs will be operating at a loss. Creation of clear action plans to address these issues of sustainability are vital to reducing financial losses and improving the quality of care delivered (Bull, 2012).

**Weight of Evidence Classification Schema**

The challenges of sustainability pose a threat to the success of the outpatient palliative care clinic and most likely are a contributing factor to the “hesitancy,” in widespread implementation of outpatient palliative care clinics across the nation. According to the ONS/PEP *Weight of Evidence Classification Schema*, effectiveness has not been established since there have not been sufficient amounts of research conducted to say with certainty that the challenges of sustainability are significant to current outpatient palliative care clinics.
TABLE 2. Summary of the Evidence about Sustainability Challenges within Outpatient Palliative Care Clinics.

<table>
<thead>
<tr>
<th>Author and Year</th>
<th>Characteristics of the Intervention</th>
<th>Sample and Setting Study Design</th>
<th>Measures</th>
<th>Results and Conclusions</th>
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<th>Level of Evidence and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull, J., et al (2012).</td>
<td>Identification of organizational and financial barriers to sustainability of palliative care.</td>
<td>Four Seasons palliative care program (inpatient and outpatient) in N. Carolina.</td>
<td>In 2008, 305 patients seen per day. 10.5 providers. Financial losses approx. $400,000 per year. Used Quality Assessment and Performance Improvement cycles to identify inefficiencies, challenges. Developed strategies to decrease cost, implemented these measures and tracked results.</td>
<td>In 2011, 620 patients seen per day. 14 providers. Financial losses decreased by 40%. Implementation of process changes, such as identifying funding solutions and expanding the workforce, can reduce financial costs. Sustainability challenges include; insufficient reimbursement and financing, scarcity of palliative care providers, lack of business models for outpatient palliative care.</td>
<td>Analysis of palliative program was on inpatient and outpatient combined. Sustainability challenges do not address specifically address outpatient palliative care clinics within an accountable care organization.</td>
<td>Level of Evidence: III (8)- Expert opinion, case studies, non-research based evidence.</td>
</tr>
<tr>
<td>Meier, D., &amp; Beresford, L. (2008).</td>
<td>Review of outpatient palliative care clinics. Identification of benefits and operational issues in outpatient palliative care clinics (OPPC).</td>
<td>UCSF Symptoms Management Service; Dartmouth Hitchcock Medical Center OPPC; University of Alabama OPPC; Fairview Health System OPPC; Cook County Hospital OPPC; Virginia Commonwealth University Massey Cancer Center; Moffitt Cancer Center.</td>
<td>Referral Source. Type of Staff. Days of Operation. Types of patient seen. Amount of patients seen.</td>
<td>Most of the clinics receive referrals from cancer centers/ oncologists, inpatient palliative care providers and some receive referrals from primary care providers. Many of the clinics run from one half day per week to five days per week. Each clinic has a palliative care physician and many have APN or RN and social worker. Many clinics are based within a cancer center or another outpatient clinic. Initial # of patient’s seen in a year approx. 250-330. Most common type of patients seen are cancer patients, HIV, and other chronically ill patients. OPPC has potential to save money by better management of care, reduced hospital stay, etc.</td>
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<td>Level of Evidence: III (8)- Expert opinion; non-research based evidence.</td>
</tr>
</tbody>
</table>
Development and Significance of Model for Outpatient Palliative Care Clinic within an Accountable Care Organization

The following model was developed based on the literature review results and consultation with a local ACO. The model provides a framework for development of an outpatient palliative care clinic within an ACO.

Outpatient Palliative Care and Accountable Care Organizations

Outpatient palliative care for chronically ill patients fills a void that several health care systems currently have and will help to ensure these health care systems are meeting the ACO benchmarks. Outpatient palliative care clinics are pivotal to the transformation of United States health care and how it is delivered. Palliative care is likely to be part of an ACO and patient centered medical homes (Barbour, L., et al, 2012). Currently, there are virtually no published data on the applicability of palliative care being integrated into an ACO or patient centered medical homes (Wallenstein, 2012). This project inquiry’s purpose is to discover, develop and implement outpatient palliative care into the arena of a new health care delivery system known as an ACO. The Dearing Squared- Model for Outpatient Palliative Care within an ACO accomplishes this goal.

Dearing Squared Model for Outpatient Palliative Care Clinic

This model is named after the author of this project inquiry and Dr. James Dearing D.O. and Chief Medical Officer of a current ACO, who was a foundational contributor to the model’s creation. Figure 3 displays the model and the components for the development of Dearing Squared Model for Outpatient Palliative Care. The value in the Dearing Squared model is that it truly puts emphasis on “meeting the patient with where they are.” The goal is to go to the patient and be available in his or her own neighborhood. This is the key to fully utilizing and having a
successful outpatient palliative care clinic. If services are closer to the patient than the hospital they are more likely to utilize your services, such as psychosocial care, adjustment in medications and IV hydration and diuresis. By having the clinic conducted every day at different institutional offices that are already in place during the initial stages and eventually have permanent clinics in these service areas of the ACO, patients will be less likely to need the ER for services.

The concept of being close to where the patient lives goes back to the goal of an ACO by providing comprehensive, coordinated care for patients. An ACO and the concept of a patient centered medical home embody the meaning and significance behind the Dearing Squared model; in this, the Dearing Squared is different than any prior outpatient palliative care clinic in its delivery and implementation. However, it is similar to existing clinics in several respects: It does have the infrastructure of current institutional based outpatient palliative care clinics in that it consists of an interdisciplinary team with a physician, advanced nurse practitioner, registered nurse, social worker, counselor and administrative personnel (Figure 3). Another advantage of the Dearing Squared model is the benefit of health coaches and their importance to the interdisciplinary team. The role of a health coach is to call patients and make sure their needs are being met. One example of how health coaches assess patients’ needs are making sure the patient has meals as well as transportation to their healthcare appointments, along with providing a friendly and personalized call to all outpatient palliative care patients. Health coaches will report this information to the social worker and appropriate measures will be taken - such as charity programs that deliver hot food to patients and stipends for city bus transportation.

The final member of the interdisciplinary team is the patient’s family member or caregiver. The family members/caregivers role is vital to the success of the physical,
psychological and spiritual health of the patient. A family member/caregiver is invaluable as they can provide insight to the degree a patient’s symptoms are being managed at home and can help the other interdisciplinary team members with recognizing specific patient needs. The boxes in Figure 2 display the days the clinic will be open, times of operation and the numbers that correlate to the offices that the institution has in place which are located in various areas of town.
The model involves similar but more comprehensive patient demographics (cancer, congestive heart failure, chronic obstructive pulmonary disease, diabetic and chronic kidney disease) than current outpatient palliative care models and still takes referrals from primary care, specialists and inpatient palliative care programs as the traditional outpatient palliative care
models do. An innovative strategy that Dearing Squared will incorporate is an expansion of the services an outpatient palliative care clinic can offer to facilitate comprehensive symptom management and quality care to palliative care patients. This involves the addition of IV hydration and diuresis. By providing these services, patients will be able to avoid using the ER for symptom management and outpatient palliative care will truly be cost-effective for the ACO.

Figure 4 (Referrals, Population and Services of Dearing Squared-Model for Outpatient Palliative Care) also displays how early referrals from primary care, specialists and inpatient palliative care providers leads to the identified patient population that the clinic will be seeing. This patient population will drive the types of services the outpatient palliative care clinic will provide, such as IV hydration and diuresis outlined above.

FIGURE 4. Referrals, Population and Services of Dearing Squared Model.

**Summary**

Chapter three presented the results for prevalence and characteristics of outpatient palliative care clinics in the United States and Canada, along with presenting sustainability
challenges for United States outpatient palliative care clinics. After the results were reviewed, it was determined that by following the recommendations of ONS/PEP Weight of Evidence Classification Schema that effectiveness of the studies were not established for the data that was reviewed. This was due to insufficient evidence and supports current literature that there is a limited amount of literature delivery of outpatient palliative care clinics (Wallenstein, 2012).

Chapter three presented the tables that display the information from the articles obtained in the literature review and also presented the meaning of an ACO, its importance and goals. Lastly, chapter three described the Dearing Squared-Model for Outpatient Palliative Care and how this model is pivotal in successfully accomplishing the goals of an ACO. Chapter four will discuss the implementation guidelines and evaluation of the Dearing Squared-Model for Outpatient Palliative Care, including the business proposal and plan, limitations to the model, and need for future research.
CHAPTER FOUR: IMPLEMENTATION GUIDELINES AND EVALUATION OF MODEL

The implementation guidelines for the Dearing Squared Outpatient Palliative Care Model are presented in this chapter, which include the business proposal and plan that has been presented at a local ACO. The local ACO (known as XYZ for this project inquiry purpose) is located in a very large metropolitan city on the west coast of the United States. The ACO is a hospital organization with two campuses and their main focus is primary care. Evaluation methods for this model will be discussed along with the limitations of the model. In the conclusion of this chapter, future needs for palliative care and outpatient palliative care clinics will be reviewed.

Development of a Business Proposal and Plan

When contemplating the development of an outpatient palliative care clinic within an ACO, it is important to remember that outpatient palliative care is an innovative area of research and implementation. Being well prepared from initial discussions with board members to presenting a business plan is critical for success. The guidelines of the Dearing Squared- Model for Outpatient Palliative Care were built upon adaptation of the Center to Advance Palliative Care guidelines for the inpatient palliative care program business proposal and plan (Center to Advance Palliative Care, 2013).

After starting a discussion with the ACO board members about the importance of an outpatient palliative care clinic, initiation of the business proposal with ACO board members occurred. A comprehensive and effective business proposal includes a strong mission statement, a system and needs assessment, and the envisioned program characteristics to include: interdisciplinary team, recognition and accessibility, cost control and revenue generation, the
structure of the program and how patient care will be coordinated across all settings (Center to Advance Palliative Care, 2013). Networking with members/representatives of local community resources is an invaluable step to help form a comprehensive clinic and reduce cost for the ACO. For example, the Dearing Squared- Model for Outpatient Palliative Care has contacted several community organizations that offer free services that will benefit palliative care patients, such as a free grief support group. Development and completion of each component of the business proposal will create an illustration of the effectiveness and opportunity an outpatient palliative care clinic can provide.

**Mission Statement**

The mission statement provided the board members with the significance and principle of an outpatient palliative care clinic. The Dearing Squared- Model for Outpatient Palliative Care Clinic used an adaptation of the example that the Center to Advance Palliative Care has created. The mission statement is as follows (ACO named removed for confidentiality and will be called XYZ):

“XYZ ACO strives to deliver safe, quality, personalized patient-centered care. XYZ provides patients and families with specialized medical care for those with serious illnesses through their outpatient palliative care clinic. The outpatient palliative care clinic provides symptom management for those suffering from a serious illness through pain control, emotional and spiritual care. The outpatient palliative care clinic serves all patients with a diagnosis that results in serious illness. The outpatient palliative care team is composed of doctors, nurses, counselors, case managers and other specialists whose goals are to improve the patient’s and family’s quality of life. The outpatient palliative care team provides patients and families an additional cushion of support by collaborating with primary care providers and other specialists. Palliative care is used in combination with curative treatments for people of all ages and all stages of serious illness. Palliative care is the answer to providing holistic, comprehensive medical care (Center to Advance Palliative Care, 2013).”
System and Needs Assessment

The next step of a business proposal should consist of a system and needs assessment. This needs to be specific to the ACO. The system component of the assessment addresses the current resources of the organization and the needs assessment addresses the resources needed. This is an essential step to determining how to best utilize the resources at hand (Center to Advance Palliative Care, 2013).

An example of items in a system assessment might include an electronic medical record (EMR) system, community interest in palliative care, an inpatient palliative care program in place and support from members of the ACO board. The needs assessment includes identification of the top 10-20 DRG (diagnosis related-group), the number of Medicare admissions, the current services provided, the cost of Medicare and ACO members with one year retrospective analysis and the integration of the clinic with local formal and informal agreements with community resources (Center to Advance Palliative Care, 2013).

The Dearing Squared-Model for Outpatient Palliative care business proposal identified that the top diagnosis related group (DRG) codes were depression, diabetes type II, congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD). The local ACO has volunteer health coaches in place already who call on these chronically ill patients to make sure they have meals and transportation to and from the hospital and outpatient offices. The cost for the local ACO was identified in that 60% of their cost each year was being generated by 5% of their Medicare/ACO members. The local ACO did have a formal agreement with a small hospice company within the community.
Program Characteristics

The Dearing Squared-Model for Outpatient Palliative Care created the interdisciplinary team to be comprised of a doctorate of nursing practice, family nurse practitioner certified in palliative care, a medical doctor with certification in palliative care, a registered nurse, social worker, counselor, manager/billing assistant, front desk receptionist and utilization of the ACO health coaches that were already in place, to create their interdisciplinary team.

The clinic will be recognized internally by conducting meetings with providers that are within the ACO and development of educational online modules about effective communication, importance of early referrals to outpatient palliative care and the goals/benefits of an outpatient palliative care clinic. The external visibility will focus on marketing through the ACO website, social media and print marketing. Accessibility to the clinic will include closely working with inpatient palliative care providers for timely hospital follow up appointments, referrals from primary care providers and specialty providers and eventually, upon program evaluation, a focus on referrals from local skilled nursing facilities, rehabilitation centers and community providers. The clinic will operate five days per week from 9:00 am-5:00 pm and will be located at various outpatient offices each day that are already in place throughout the ACO service area.

The cost was focused on the generation of revenue from the clinic and the cost savings from decreasing the ER utilization and hospital admission rates. The Dearing Squared-Model for Outpatient Palliative Care is co-located within the ACO. Co-located means that the clinic is within the space of an already established clinic, possibly share services and has an independent patient population within the clinic (Center to Advance Palliative Care, 2013). As displayed in the Dearing Squared-Model for Palliative Care, the patient population being served will consist of cancer, CHF, chronic kidney disease, diabetes and COPD patients. To ensure that
coordination of care is a top priority, the PCP (primary care provider) and palliative care team will be notified upon discharge from hospitalization and fostering of relationships with PCPs for early referral will be imperative.

The Dearing Squared-Model for Outpatient Palliative Care was founded on the Theory of Symptom Management by the University of California-San Francisco School of Nursing. As noted in chapter one, a vital component of palliative care is displayed in the theory of symptom management, which is to identify the symptoms, minimize or delay the symptoms and measure the outcomes by reduction in intensity, distress or duration (Humphreys, 2008). Dearing Squared-Model for Outpatient Palliative Care incorporates identifying a patient population in need of palliative care, strives to minimize unpleasant symptoms through pharmaceutical, psychological and spiritual therapies and measures the outcomes of the quality of life with its physical, emotional and psychological symptoms.

**Primary and Palliative Care**

There has been a struggle identifying when primary care becomes palliative care and the attitudes of primary care providers towards outpatient palliative care providers. As evidenced by the Dearing Squared-Model for Outpatient Palliative Care, an emphasis has been placed on early referrals from PCPs and the mission statement highlights the importance of working together with them to provide better symptom management. As evidenced in chapter one, there is importance in early referrals to palliative care. It has been shown that late referrals to palliative care limit the effectiveness that palliative care can deliver (Lederman, 2013). Many palliative care experts support the fact that palliative care should be started earlier in illness while primary care experts believe that this may be overstated (Back, 2001). There is a point in the care trajectory when a patient with chronic, life-limiting disease needs palliative care. Many patients
say they want to die at home, pain and symptom control are essential and they want to decrease
the burden imposed on their families by their illnesses. However, 60-70% of people die in an
institution, 70% of outpatient cancer patients have moderate to severe pain and a third of families
caring for a dying person spend their savings account on their loved ones care (Back, 2001). Skill
sets that represent high-quality palliative care include cognitive skills (differential diagnosis,
evaluating published evidence) and affective skills (communication and emotional support)
(Back, 2001).

Gardiner, Gott and Ingleton (2012) reported factors that support good partnerships
between PCPs and palliative care providers. The factors include good communication between
providers, clear definition of roles and responsibilities, timely access to palliative care,
coordinated care and opportunities for shared learning and education (Gardiner, 2012). The
Dearing Squared-Model for Outpatient Palliative Care demonstrated through the business
proposal that coordination of care is vital to success of an outpatient palliative care clinic along
with improved communication skills, early referral to palliative care, educational online modules
about palliative topics and a clear definition that the palliative care role is to support the PCPs by
offering an extra layer of supportive care for symptom management and quality of life.

**Business Plan**

The business plan incorporates the business proposal. Dearing Squared- Model for
Outpatient Palliative Care used a business plan template available in Microsoft Word application
software. A business plan starts with an executive summary that includes a mission statement
and the business opportunity you are presenting. Dearing Squared focused on XYZ ACO mission
statement and incorporated this into the opportunity to start an outpatient palliative care clinic.
After discussion with XYZ ACO, it was identified that to reach their financial goals that the
Dearing Squared-Model for Outpatient Palliative Care needs to reduce their expenses by 3% and that Dearing Squared- Model for Outpatient Palliative Care can accomplish this. A standard business proposal template was used that includes industry analysis, market analysis, operational analysis and financial analysis.

The next step involves overview of the industry, the projection of what Dearing Squared-Model for Outpatient Palliative Care will bring XYZ ACO in the future, potential customers for the clinic and the direct and indirect competitors of the clinic. Dearing-Squared-Model for Outpatient Palliative Care reviewed the goals of outpatient palliative care clinics, explained the benefits of having an outpatient palliative care clinic as part of an ACO, reviewed the patient population being served and identified XYZ ACO direct and indirect competitors. XYZ ACO has no direct competitors at the time of the business plan, as it is the first ACO in their geographical area. Indirect competitors consisted of other hospital institutions that have set up or are in the process of establishing an outpatient palliative care clinic.

Marketing is an important component of a business plan. Dearing Squared-Model for Outpatient Palliative Care business plan emphasized XYZ ACO impact on the community by offering an outpatient palliative care clinic and developed XYZ ACO strategies in providing marketing (print and web) to the local community.

Operations of the Dearing Squared- Model for Outpatient Palliative Care were reviewed from identifying the interdisciplinary team needed, hours of operation, site of operation, services provided and patient population seen.

Lastly, financial operations were discussed. Dearing Squared- Model for Outpatient Palliative Care projected that it could reduce readmission rates and ER utilizations by 5% with the identified population. By reducing the readmission rates and ER utilization by 5% within the
identified population the Dearing Squared-Model for Outpatient Palliative Care would be a cost savings program and very beneficial to XYZ ACO. Capital requirements were reviewed for the clinic to include full time employee salaries and benefits packages. The physical location with their subsequent costs were not added, as Dearing Squared-Model for Outpatient Palliative Care will be sharing space with already existing outpatient clinics. The calculated amount of savings that the clinic will produce for XYZ ACO is over three million dollars. This demonstrates that outpatient palliative care clinics within an ACO are valuable to patients, families, providers and the ACO. The Dearing Squared- Model for Outpatient Palliative Care is able to be implemented within an ACO and not only provides a framework that allows for high quality palliative care to be given to patients and families but provides financial cost savings to an ACO.

**Implementing Model**

Identification of quality measures or outcomes, establishes the foundation for evaluating how high-quality palliative care is delivered. Once the model is implemented, outcome measures become vitally important as an ACO has accountability to the government to demonstrate efficiency and high-quality care (Bausewein, 2008). Evaluation of Dearing Squared- Model for Outpatient Palliative Care is important to ensure that the model is valid, attainable, and implementable.

The Dearing Squared-Model for Outpatient Palliative Care will be evaluated on the fulfillment of the eight domains that the National Consensus Project For Quality Palliative Care has developed that were discussed in chapter one. The eight domains are structure and process of care, physical aspects of care, psychological and psychiatric aspects of care, social aspects of care, spiritual, religious and existential aspects of care, cultural aspects of care, care of the patient at the end of life and ethical and legal aspects of care (National Consensus Project for
Palliative Care, 2013). Following these guidelines provides a roadmap for developing clinical services that benefit patients and their families (Ferrell, 2008). By addressing these eight domains, the Dearing Squared-Model for Outpatient Palliative Care will have incorporated the current clinical guidelines for development of a model that delivers high-quality palliative care.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 1 (Structure and Process of Care) through the following: creation of an interdisciplinary team; access to bereavement care 24-hours a day, seven days a week with an on-call social worker or counselor; clinic hours Monday through Friday from 9:00 am-5:00 pm; health coaches calling at least once bi-weekly to make sure patient needs are met; adequate training and clinical support through palliative certified providers; timely care plans with bi-weekly follow up appointments; communication for transfers between healthcare settings through EMR system in place; availability of hospice through the formal agreement with a local hospice organization; ability for patients to make informed decisions and education to families through comprehensive office visits with the resources of a social worker.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 2 (Physical Aspects of Care) through assessment, management and documentation of symptoms. Comprehensive head to toe examinations following national guidelines for managing chronic illness and creating individualized plan of care for all patients are fundamental.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 3 (Psychological and Psychiatric Aspects of Care) through assessment, management and documentation of psychological symptoms through comprehensive exams, provision of a counselor on site, 24/7 on-call availability, weekend bereavement coverage and community resources for free grief support groups.
The Dearing Squared-Model for Outpatient Palliative Care will address Domain 4 (Social Aspects of Care) through comprehensive social care plans and regular patient/family care conferences with the utilization of a dedicated social worker and comprehensive office visits.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 5 (Spiritual, Religious and Existential Aspects of Care) through spiritual assessments, spiritual care services available, community partnerships and trained spiritual care professionals with utilization of counseling services, comprehensive office visits and free community resources through religious organizations (grief support groups). The development of a definition for spirituality was created by the Consensus Conference and was based on the National Consensus Project for Quality Palliative Care guidelines. It states, “Spirituality is the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature and to the significant or sacred” (Otis-Green, 2012). This definition helps solidify the importance and meaning spirituality contributes to a person’s quality of life. In the future, Dearing Squared-Model for Outpatient Palliative Care would like to incorporate a chaplain as part of the interdisciplinary team to greater fulfill Domain 5.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 6 (Cultural Aspect of Care) through cultural assessments with comprehensive office visits. In the future, provision of an interpreter for patient/families preferred language will need to be investigated, possibly through an interpreter service by telephone that provides several different language interpreters.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 7 (Care of Patient At End of Life) through documentation of patient wishes, advanced directives, family
education on dying process, adequate pain control, grieving services with comprehensive office visits, utilization of a counselor, grief support groups and referral to a hospice organization as needed. Transition of care is a vital component of outpatient palliative care clinics and palliative care patients will have support when the time arrives for hospice care.

The Dearing Squared-Model for Outpatient Palliative Care will address Domain 8 (Ethical and Legal Aspects of Care) through advance directives, medical power of attorney, code status orders, availability of an ethics committee with comprehensive office exams, utilization of a social worker and legal resources through the ACO. In the future if Dearing Squared- Model for Outpatient Palliative Care incorporated a pediatric palliative care, concerns will need to be taken into account for the child’s wishes.

**Measurement Tools and Evaluation**

The goal of Dearing Squared- Model for Outpatient Palliative care is to create a framework for successful delivery of high-quality palliative care. Measuring quality and the impact of the Dearing Squared-Model for Outpatient Palliative Care upon implementation can be broken down into four categories. These four categories include operational data, clinical data, customer data and financial data and have been adapted from the guidelines for inpatient palliative care programs from the Center to Advance Palliative Care (Center to Advance Palliative Care, 2013).

Evaluation of operational data (Figure 5) is based on the type of referrals, volume of patients seen, etc. Evaluation of clinical data is based on establishing patient-centered goals, coordination of care and assessment and management of physical, psychological and spiritual symptoms. Evaluation of customer data is based on satisfaction surveys from patients, families and staff, and evaluation of financial data is based on billing revenues and number of ER
utilizations and hospital admissions (Center to Advance Palliative Care, 2013). These measurement guidelines along with various evaluation tools will provide a comprehensive picture of the effectiveness of Dearing Squared-Model for Outpatient Palliative Care.

FIGURE 5. Evaluation Model.

Tools for evaluation that have been compiled and supported by the National Palliative Care Research Center include pain and symptom management (e.g., Palliative Care Outcome Scale, Wong-Baker FACES pain rating scale, Needs at the End-Of-Life screening tool, Memorial Symptom Assessment Scale), functional status (e.g., ECOG Performance, Karnofsky
Performance Scale, Katz Index of Independence in Activities), psychosocial care (e.g., Beck Depression Inventory, Mini-Mental State Examination, Herth Hope Index, Scale of Psychological Well-Being), caregiver assessment (e.g., FAMCARE scale, Grief Resolution, Caregiver Strain Index) and quality of life (e.g., EORTC QOL Scale, FACT-G, McGill Quality of Life Index) (National Palliative Care Research Center, 2013).

Once implemented, Dearing Squared-Model for Outpatient Palliative Care will focus on measurement outcomes and utilization of some of the above evaluation tools to fully evaluate the quality of palliative care Dearing Squared-Model for Outpatient Palliative Care is capable of delivering.

**Sustainability of Model**

The sustainability of Dearing Squared-Model for Outpatient Palliative Care is an area of concern as there has not been quantitative data available to evaluate the sustainability of outpatient palliative care programs within an ACO or in a general outpatient setting. The PRISM model has been used as guidance for evaluating the sustainability of Dearing Squared-Model for Outpatient Palliative Care. PRISM (practical, robust implementation and sustainability model) was created to help facilitate translation of research in the health care setting (Feldstein, 2008). This model is comprehensively based on the concepts of quality improvement, chronic care, diffusion of innovations and measures to effectively translate population-based research (Feldstein, 2008). Sustainability is based on a program’s ability to be reached by important patient subgroups to be effective (Feldstein, 2008). A second component of reaching sustainability for any clinic is being cost-effective. Outpatient palliative care clinics fill a gap in coordinated care for chronically ill patients with life-limiting illnesses. The proposed Dearing Squared-Model for Outpatient Palliative care is also cost-effective as evidenced in the business
plan. Identification of measures for evaluation (data mentioned above) will need to be assessed and early feedback from these measures will contribute to program sustainability. Being successful breeds future success and organizations are more likely to replicate programs and implementation strategies that were effective and sustainable (Feldstein, 2008). By evaluating measurable outcomes and quality indicators on a continuous feedback, Dearing Squared- Model for Outpatient Palliative Care can become a sustainable and valuable outpatient palliative care clinic to ACO’s across the country.

**Limitations of Model**

The limitations of this project inquiry are related to the quality of the literature reviewed. According to the Oncology Nursing Society, *Putting Evidence into Practice* (ONS/PEP) *Levels of Evidence* scale (ONS/Tables) (Figure 1), all but one of the articles obtained were a category 3, level 8, which is the weakest level of evidence and consists of non-research based qualitative studies, all of which were expert opinions. One study was a category 2 level 6, which was an uncontrolled correlational descriptive study.

As noted in chapter one, palliative care is fairly new as a recognized specialty in the medical field (Loscalzo, 2008). Despite being recognized as a new field of study, there has been a resounding amount of literary evidence about the benefits and importance of palliative care but due to financial constraints there has been a limited amount of outpatient palliative care clinics operating in the United States (Center to Advance Palliative Care, 2013). Due to the limited availability of outpatient palliative clinics in the United States and the world, there is a limited amount of literature for review on outpatient palliative care clinics and there is no current literature for outpatient palliative care clinics within an ACO. This has caused constraints and limitations for this project inquiry.
Need for Future Research

Future research is needed in several facets throughout palliative care. Most notably, future research is needed in developing outpatient palliative care clinics in new health care settings, such as the ACO. Research regarding outpatient palliative care clinic development, implementation and evaluation is also needed. Quantitative research is essential to address the financial implementation and sustainability of outpatient palliative care clinics, which will result in more health care organizations interested in creating outpatient palliative care clinics to better serve the growing chronically ill population. Most importantly, a comprehensive list of quality indicators is needed to solidify, build validity and credibility within palliative care. Currently, there has been no comprehensive list of quality indicators developed in the United States. An increase in development and publication of quality indicators for palliative care has occurred within the past four years, however, there is still a need for detailed methodological specifications (Roo, 2012). In summary, future research into guidelines for program development and quality indicators will allow expansion of palliative care practice and ultimately allow for patients to receive better access to symptom management and quality of life care.

Conclusion

The purpose of this project inquiry is to create a model for implementing an outpatient palliative care clinic within an ACO. Future health care administrators and providers will benefit from the model and information presented in this practice inquiry to develop an outpatient palliative care clinic within an ACO. Development of the Dearing Squared- Model for Outpatient Palliative Care is the first model for an outpatient palliative care clinic within an ACO in the nation. Doctoral prepared advanced nurse practitioners are highly qualified for implementing and
directing outpatient palliative care clinics and will have a vital role in the success of these clinics within an ACO.
REFERENCES


