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## FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

# HOSPICE PSYCHOSOCIAL SERVICE AVAILABILITY AND UTILIZATION IN THE UNITED STATES

A dissertation submitted in partial fulfillment of the

requirements for the degree of

DOCTOR OF PHILOSOPHY

in

SOCIAL WELFARE

by

Amary Alcide

2016

To: Dean Tomas R. Guilarte R. Stempel College of Public Health and Social Work

This dissertation, written by Amary Alcide, and entitled Hospice Psychosocial Service Availability and Utilization in the United States, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Vice Pres	sident for Research and Economic Development
	and Dean of the University Graduate School

Florida International University, 2016

# **DEDICATION**

This work is dedicated to my loving and supportive family.

I love and thank you for everything.

May the Creator of the world bless you in abundance.

#### **ACKNOWLEDGMENTS**

Primary acknowledgement goes to the Creator for guiding me in the direction that has led me to this point. Divine intervention is what allowed me to balance family obligations and intense scholarly tasks. Thank you to my family who supported me through the highs and lows of achieving this accolade. My wonderful husband who tirelessly helped me day and night, encouraging me to do what I felt was right and not pressuring me in either direction. Thank you to my children who have been with me from the beginning and dealt with the difficulties of sharing my attention and energy as I completed my tasks.

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#### ABSTRACT OF THE DISSERTATION

# HOSPICE PSYCHOSOCIAL SERVICE AVAILABILITY AND UTILIZATION IN THE UNITED STATES

by

### Amary Alcide

#### Florida International University, 2016

## Miami, Florida

## Professor Nicole Ruggiano, Major Professor

Information has been sparse on the hospice psychosocial support offered through the American hospice system. This study examined the hospice psychosocial services that are available and utilized within the United States. In addition, the characteristics of patients and families who utilized these services were comprehensively assessed. Data from the 2007 National Home and Hospice Care Survey (NHHCS) was analyzed in this cross-sectional study (National Center for Health Statistics [NCHS], 2007). Hierarchical linear regression, hierarchal logistic regressions as well as chi-square test of independence were used to analyze the data.

It was hypothesized that for profit hospice ownership status would predict less availability and utilization of psychosocial services when agency size, chain status, and patient total activity of daily needs are controlled. Ownership status was a significant predictor of medical social service availability where for profit agencies were more likely to have this service available. Conversely, hospice patients at for profit agencies were less likely to utilize medical social services as well as bereavement services.

Overall, patient and caregiver utilization rates of psychosocial services were low with the exception of medical social services, bereavement services, spiritual care services, & safety training services. The majority of individuals that used these services were married, White, non-Hispanic, 74-75 year old cancer patients with no cognitive impairment. Most were Medicare recipients with advanced directives in place and had 4 ADL needs. Routine home care patients with an average care continuum of about 2-2 ½ months accounted for most of those who used these services. The majority of these patients lived in a private residence with family members and had spousal caregivers.

These results suggest that the psychosocial services that are being provided have an overall low utilization rate despite availability regardless of ownership type. Further, psychosocial services are disproportionately underutilized by racial and ethnic minorities. In addition, these results highlight the disparity that exists between racial groups that are admitted under hospice care. Further interdisciplinary research needs to be conducted in order to address this disparity in order to determine alternative forms of care that are specifically tailored to a diverse patient population.

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#### **CHAPTER I: INTRODUCTION**

## **Background of the Study**

Hospice services provide specialized care which assists terminally ill patients and their families through the transitions that occur at the end-of-life (National Hospice and Palliative Care Organization [NHPCO], 2013a; Saunders, 2000). The quality of support services provided by a Medicare approved hospice provider is pinnacle during this vulnerable time in life. Unfortunately, little is known about the psychosocial services, interventions, outcomes and quality of services within the American hospice care system (Reese, 2013).

The nearly 20% influx in for-profit hospice providers since the year 2000 has sparked immense debate regarding the commercialization of this form of care and the possible impacts on service delivery, profitability, ethical practice, and possible quality variations based on ownership status (Ata et al., 2013; Perry & Stone, 2011; Sack, 2007; "The Debate in Hospice Care", 2008).

Researchers have begun to examine this dynamic to evaluate if and/or to what extent this change in the hospice industry has empirically significant and practical effects. Hospice provider ownership status has been correlated with variables such as patient diagnosis, the manner in which patients are selected for admission, agency engagement with their respective community engagement, and staff characteristics (Aldridge et al., 2014; Carlson et al., 2004; Gandhi, 2012; Wachterman et al., 2011). However, there have not been any studies published that have comprehensively examined hospice psychosocial service availability and usage.

#### **Purpose of the Study**

This study aimed to examine hospice psychosocial services that are available and utilized within the United States. In addition the characteristics of patients and families utilizing these services were comprehensively assessed.

## **Specific Aims**

The general aim of this study is to examine hospice psychosocial services and the factors associated with the utilization of these services within American hospice care settings.

Specific Aim 1: Examine the availability of psychosocial services at for profit versus other hospice agencies (not-for-profit and government owned). What types of psychosocial services are being provided by hospice agencies?

Specific Aim 2: Examine the probability of psychosocial service utilization by patient and family members at for profit and other hospice agencies. What types of psychosocial services are being utilized at hospices of different ownership types?

Specific Aim 3: Examine the psychosocial services that are most frequently utilized and the characteristics of the consumers that use this form of hospice care. Which psychosocial services are utilized the most? What are the factors associated with hospice psychosocial utilization by consumers?

## **Conceptual Framework**

The Life-Span Development Theory highlights the needs of the aging population by detailing issues that can occur during transitions throughout life (Hoyer, 2002). This theory states that the process of aging is multidimensional which presents a litany of needs that fluctuate as the individual experiences gains and losses (Hoyer, 2002). When a

hospice patient and families are faced with the complexities at the end of life, optimal care that addresses these issues becomes essential.

A major component within the development of hospice as a professionalized service was the holistic, interdisciplinary perspective of care that addresses "total pain" (Saunders, 2001). One of the most important factors for patients and families is the desire for the patient to have a peaceful death (Ruland & Moore, 1998). Complementary to the initial aim of professionalized hospice care, The Peaceful End of Life Theory stipulates that in order to have a peaceful death experience, there needs to be a facilitation of the patient not experiencing any pain but feels a sense of peace, closeness to family members, dignity, and comfort (Ruland & Moore, 1998).

The aforementioned perspectives take into account all aspects of the patient's interpersonal, intra-personal, and environmental elements thereby facilitating a plan of care that addresses the needs of patient and families comprehensively. However, when there are organizational models that limit the facilitation of optimal care, hospice patients and families may not receive the highest quality of services that have been the foundation of the hospice philosophy since its inception.

Traditional microeconomic theory states that corporations faced with scarce resources are motivated to maximize profit using the available resources for what is considered the most needed or essential services all while minimizing expenditures (Hosmer, 1984). The key focus of the theory is the examination of preference relations which is how the choices made available to corporations and consumers can influence service availability and utilization practices (Hosmer, 1984; Nicholson & Snyder, 2008).

The focus on profit maximization can be explained by the notion of altruism and egoism. Altruistic motives emphasize the needs of others without focusing on the benefits that may or may not be warranted based on the assistance provided (Bar-Tal, 1986).

Conversely, those who are egoistic, are more likely to be motivated to provide assistance purely based on self-interest and the rewards that will be fostered by helping others (Henson, 1988). It is from this theory where the concept of "profit motive" stems and has drawn concern from critics of the for-profit movement in healthcare (Brock & Buchanan, 1987; profit motive, 2002).

There are polarized arguments as it pertains to the appropriateness that the motivation of financial gain has in the field of medicine with an even more intensive debate when focused on end-of-life care. From the business perspective, cost savings and access have been used as the forthcoming arguments to promote the influx in for-profit hospice providers ("The Debate in Hospice Care", 2008; Kinzbrunner, 2002). However, when the practice tendencies of for-profit hospice providers have been examined, results lend to ethical concerns regarding patient selection, referral sources, admitting diagnoses, location of care, and length of stay (Aldridge et al., 2014; Carlsen, et al., 2004; Cherlin, 2010; Gahndi et al., 2012; Lindrooth & Weisbrod, 2007; Wachterman et al., 2011). This begs the question of how much a profit driven motive can affect the care provided to hospice patients and their families.

The Contract Failure Theory states that when the quality and quantity of services are restricted, not-for-profit utilization increases because of the expectation of not-for-profit emphasis on quality (Hansmann, 1980). On the other hand, the theory postulates that for-profits under this same constraint are afforded the incentive to exploit vulnerable

service consumers (Hansmann, 1980). It is theoretically possible that due to the vulnerability of the hospice population, for-profit hospice providers may delineate from providing adequate psychosocial services to patients and families due to the current limited scope of attention to this domain of hospice service.

When business models are enforced to meet stakeholder demands and team members such as social workers are limited in their practice capacity due to agency financial motives, hospice patients and their families may be deprived of essential attention and all-inclusive care. Care that takes not just the terminal disease process or financial gain into account, but also all of the psychological, environmental, social, economic and cultural aspects of their lives. If the psychosocial services that hospice social workers are not seen as essential services, then more harm than good can result. This study aims to examine this dynamic with attention to ownership status, service availability, and characteristics of service utilization. The following section will provide the rationale for the study.

#### Rationale

National data evaluating the outcomes and perceived quality of hospice service availability in the United States has not been regulated by Medicare until recently. Hospice Medicare has begun to aim towards more rigorous evaluation of patient outcomes and quality (MedPAC, 2013). As of June 2014, all assessments conducted by the interdisciplinary hospice team must incorporate the Hospice Item Set (HIS) tool (CMS, 2014b). Review of the current HIS data elements reveal that as it pertains to psychosocial dimensions, the tool only evaluates whether or not patient and/or caregiver values and beliefs (as desired by the patient and/or family) have been addressed by the

interdisciplinary team based on medical record review (CMS, 2014b). These measurement items are not to be utilized as assessment tools but for outcome measurement and data collection (CMS, 2014b). According to CMS (2014b), the HIS can be added to current assessments and augmented as deemed appropriate by each respective agency. This presents potential empirical issues of validity and could present problems of bias.

As a part of the national performance improvement initiative, NHPCO has developed a National Data Set (NDS) (NHPCO, 2014b). The NDS tool is administered annually by NHPCO to its member agencies and is considered to be a comprehensive evaluation of hospice operations including care recipients, care providers, cost and quality of services (NHPCO, 2014b). Though the data collected provides key information regarding the general operations and patient demographics of hospice agencies around the country, it does not evaluate utilization of services An additional limitation is that the tool aims to evaluate quality of services but the data is not based on consumer perspective and the concept of what quality measures are being evaluated remains unclear.

NHPCO has also developed the Family Evaluation of Hospice Care (FEHC) survey which is sent quarterly to bereaved hospice family members to assess their perception of the quality of care (NHPCO, 2014b). Further analysis of the items on this survey reveal that the only psychosocial concepts evaluated are help with sad ness, anxiety, and emotional support. There is no indication of other psychosocial concepts such as referral assistance or ethical issues counseling. This is reflective of the CMS (2014a) guidelines indicating emotional support as an important outcome but negates any other psychosocial aspects that are in fact key elements to address during end-of-life care.

Much of the empirical focus to-date has been on the hospice team's management of the physical problems faced by patients with the main goal of pain reduction. There is limited focus on the practical evaluation of the prevalence, intervention, and measurement of outcomes involved with the psychosocial factors present with hospice patients and caregivers (Reese, 2013). Currently, there is no standardization in comprehensive psychosocial assessment, intervention, nor outcome tool delivered across hospice providers (Reese, 2013). There has been one psychosocial outcome measure developed and piloted specifically for hospice social worker use, the Social Work Assessment Tool (SWAT) (Reese, 2013; Reese et al., 2006). However, this measure needs further validation and reliability prior to any dissemination for data collection.

The limitations present in the current national evaluation of service availability, utilization, outcomes, and quality of hospice psychosocial services reveal that there is a significant amount of empirical investigation that can be done to address these matters. The proposed study will initiate investigation into psychosocial hospice services by examining the constructs identified under the hospice social worker role as indicated by empirical literature (Christ & Blacker, 2009; Reese, 2011; Reese, 2013; Reese & Raymer, 2004; Reese et al., 2006; Reith & Payne, 2009; Saunders, 2001). These constructs (resource referral, mental health counseling, advanced directive counseling, respite care linkage as well as grief and bereavement counseling) have also been identified by hospice regulatory and organizational bodies CMS (2014a), NHPCO (2013a), and NASW (2004) as components of the hospice social work role.

#### **Significance of the Study**

The psychosocial component is important because of the existence of not only physical symptomology at the end of life but also the emotional, mental, and social impact that the disease process can have on both hospice patients and families. The following section will further highlight the significance of examining psychosocial service availability and utilization in the hospice industry.

Terminally ill adult patients can suffer from increased pain, emotional distress from a debilitating disease process, as well as limited support as they progress through the stages of the disease with increased need (Buckey & Abell, 2010; Chochinov et al., 2002). To address this need, hospice services have become a growing source of support for terminally ill patients and their families as indicated by the increase of service utilization since the service became nationally available in the early 1980's (Miller & Mike, 1995).

As an integral part of hospice services, psychosocial support can help address end-of-life issues such as denial, death anxiety, maladaptive coping, lack of social support, financial resource limitations, as well as ethical issues such as artificial nutrition and non-resuscitation (Bath, 2010; Reese, 2013; Reith & Payne, 2009 Werth et al., 2002). As a whole, both patients and their loved ones desire a "good death" experience and that is defined based on societal and cultural norms (Kearl, 2009; Pleacher, 2011). Despite some variances, a common factor among those experiencing the process of death is the mitigation of physical, emotional, and societal pain as best possible with peace and serenity (Saunders, 2000). In addition, the availability of medical professionals that are culturally competent, compassionate, and knowledgeable about the care of the dying and

their loved ones are pinnacle in the perceptions of the experiences that people face at this time in life (Pleacher, 2011).

These are some of the reasons why examination of psychosocial services remains significant (Reese, 2013). There have been a few foundational studies of hospice psychosocial interventions. Results of these studies indicate positive clinical outcomes such as reduction of caregiver stress and anxiety, with increased problem-solving skills as well as quality of life (Allen et al., 2008; Carter, 2006; Csikai et al., 2013; Dimiris et al., 2010; Dimiris et al., 2012; Drossel et al., 2011; Empeño et al., 2011; Gordon, 2013; Keefe et al., 2005; Kilburn et al., 2011; Kruse et al., 2013; McMillan et al., 2006; McMillan et al., 2007; Moody, 2004; Northouse et al., 2007; Northouse et al., 2013; Ott & Lueger, 2002; & Steinhauser et al., 2009; Washington et al., 2012). However, comprehensive hospice psychosocial service delivery and consumer utilization remains understudied (Reese, 2013; Reese & Raymer, 2004).

The relevance of psychosocial services and utilization based on hospice agency ownership status may influence quality, duration, and type of service. Psychosocial intervention implementation and outcomes may also be informed. Furthermore, having a clear understanding of psychosocial services and service utilization can inform policy makers, stakeholders, as well as hospice consumers regarding future choices related to end-of-life care. The following section will review the hospice philosophy as well as the services that are provided.

#### **CHAPTER II: LITERATURE REVIEW**

#### **Hospice Philosophy and Services**

The modern model of hospice care was initiated in London during 1967 by Dame Cicely Saunders (Corr, 2009). Hospice was formally established in the US during 1974 and has grown significantly since that time (Saunders, 2000). The most recent data from the Facts and Figures report from NHPCO (2013b) shows that as of 2012, there are over 5, 500 hospices nation-wide including U.S. territories the U.S. Virgin Islands, Puerto Rico, and Guam. Most of these agencies are free-standing hospices (not a part of a home health agency, hospital system, or nursing home), located in urban areas, and serve an average of about 149 patients per day (MedPAC, 2011; NHPCO, 2013b).

Hospice provides support for patients with a medically certified terminal diagnosis where if the disease runs its normal course, they are not expected to survive more than six months and must be recertified by a medical physician every three months (Rhymes, 1990). Initiated in 1982 under the Tax Equity and Fiscal Responsibility Act (TEFRA), services are covered fiscally by the Hospice Medicare Benefit and regulated by Centers for Medicare and Medicaid Services (Miller & Mike, 1995). This coverage includes the medical care provided during the visits by the interdisciplinary hospice team, patient pharmaceutical needs, durable medical equipment including oxygen, as well as supporting medical supplies (Morefield et al., n.d.).

#### **Terminal Diagnosis**

There are several terminal diagnoses that qualify a patient for hospice care. Since the 1970's when the majority of the patients served were diagnosed with cancer, the statistics show that over half of those who receive hospice care have been ascribed terminal diagnoses of conditions other than cancer (that is Unspecified Debility,
Dementia, Heart Disease, Lung Disease, Stroke/Coma, Liver Disease, Amyotrophic
Lateral Sclerosis (ALS) and Non-ALS Motor Neuron, as well as AIDS) (National
Hospice and Palliative Care Organization, 2013). Hospice eligibility of these diseases are
defined by the Medicare guidelines for determining terminal status (CMS, 2014b).

### The Hospice Model

The interdisciplinary team providing hospice care consists of an attending physician, registered nurse, certified nurse assistant, medical social worker, spiritual counselor, volunteer, and other supporting professionals such as integrative therapists (CMS, 2012; Lutz, 2011). Besides mandating specific supportive care professionals, the hospice Medicare guidelines require each of the aforementioned healthcare professionals to provide care in order for the hospice to be certified (CMS, 2012). The team members address the patient's "total pain" needs; a concept developed by Cicely Saunders as physical, psychological, social, and spiritual issues affecting a dying patient (Arber, 2007; Oliver et al., 2008; Saunders, 2001).

Specifically, the main responsibilities of the team are to: manage pain and symptoms of the patient as well as provide the necessary medications, medical equipment, and supporting medical supplies that are related to the patient diagnosis (National Hospice and Palliative Care Organization [NHPCO], 2013a). In addition NHPCO (2013a) states that each hospice team provides education on patient care as well as emotional and spiritual support to both the patient and family. Grief support is also provided to surviving friends and family post-death of the patient (NHPCO, 2013a).

These services, among others, are collectively and extensively provided based on the team member's professional expertise and patient/family needs (NHPCO, 2013b).

#### **Location of Service**

Hospice services can be provided in the patient's primary residence such as an assisted living facility, private residence, or skilled nursing facility (Hospice Foundation of America, 2013). In addition, some hospice agencies have freestanding inpatient units or can provide services in a hospital where there is a contracted hospice unit or beds use specifically for hospice patients according to the Hospice Foundation of America (2013). To-date, 66% of hospice services are provided to patients in residencies with just over 40% percent of those patients living in private homes (NHPCO, 2013b).

#### **Level of Care**

The patients receive the interdisciplinary team services under one of four different levels of care. These care levels, based on Medicare requirements, are categorized under either home-based care (routine home care and continuous home care) or inpatient care (general inpatient care and inpatient respite care) (NHPCO, 2013b). Routine Home Care is the standard level of service within the patient's place of residence where the entire team provides the appropriate services based on the need expressed in the patient plan of care (NHPCO, 2013b). According to NHPCO (2013), this level of care accounted for over 95% percent of the care provided in 2012.

The Centers for Medicare and Medicaid Services [CMS] (2008) defines

Continuous Home Care as the level in which a patient receives the standard hospice
services at his or her residence in addition to a minimum of eight hours of nursing care
within a 24 hour period. This aspect of service is initiated due to unmanaged symptoms,

such as pain and/or discomfort. This service is temporary and the patient is placed on Routine Home Care level of service once symptoms have been effectively managed or the patient is declared deceased (CMS, 2008; NHPCO, 2013b).

There may be times when a patient has uncontrolled pain or acute to complex symptoms that cannot be assuaged by the hospice team in other settings such as within the home. This may indicate that the patient should be admitted to an inpatient facility, such as a free standing hospice unit or one within a hospital, and placed under the General Inpatient level of care until the symptoms are managed or the patient dies (NHPCO, 2013b). Finally, the Medicare Hospice Benefit provides coverage for short-term respite care, defined as Inpatient Respite Care, which provides intermediate relief for the nonprofessional providing care, the caregiver (s), by placing the patient in an approved facility based on state regulations (caregivers, 2014; NHPCO, 2013b).

Medicare reimbursement for hospice services is dependent on patient level of care (Wachterman et al., 2011). Since the majority of hospice patients are Hospice Medicare recipients, how a provider will operate can have certain effects. The next section will detail how the ownership status may influence patient level of care, Medicare reimbursement.

#### Level of Care, Medicare Reimbursement and Ownership Status

At the beginning of every Medicare year (November 1), a daily or hourly base rate is established and adjusted according to the wages of the agency's local geographic market (Ata et al., 2013; MedPAC, 2013). The rates for routine home care, general inpatient care, or inpatient respite care are daily while continuous care rate is provided at an hourly rate due to intensified care needs (MedPAC, 2013).

Despite the base rate equality across hospice types, there has been a significant increase of for-profit hospice providers and a slow reduction in the amount of not-for-profit providers since 2000 (Wachterman et al., 2011). The most recent MedPAC data provided to congress indicates that in the year 2000, there were about 672 for-profit hospice agencies and 1, 323 not-for-profit agencies nationwide (MedPAC, 2013). Then, MedPAC (2013) reports that between 2000 and 2007, there was a nearly 14% increase in for-profit hospice providers while only .1% of not-for-profit numbers increased.

The amount of for-profit hospice agencies continued to increase between 2007 and 2010 by 5.2% while interestingly, the not-for-profit hospices began to decline by .4% (MedPAC, 2013). Between 2010 and 2011 there was another decline in the number of not-for-profits by .8% and an increase in for-profits by 5% (MedPAC, 2013). This trend has continued into 2012 as NHPCO (2013b) reports that 32% of hospices nation-wide are not-for-profit while 63% are for-profit providers with the remaining 5% being government owned providers.

It has been hypothesized that this influx of for-profit hospice agencies could have been due to the increase in demand for hospice services (MedPAC, 2009). According to the MedPAC (2009) report, hospice Medicare beneficiary enrollment numbers doubled between 1997 and 2007. MedPAC (2009) speculates that the profitability of having Medicare beneficiaries on hospice services had a significant impact on the increase seen in for-profit providers. Logically, the profit margins are increased when there are patients utilizing services for longer amounts of time. The next section will review patient length of service and ownership status correlation.

#### **Length of Service and Ownership Status**

One trend that has been observed along with the increase in for-profit hospices is that the average length of service, that is the total number of days a patient receives hospice services, has also increased. In part, this increase was a result of the Balanced Budget Act of 1997 which changed the Medicare policy from limiting coverage to 210 days and allowing unlimited 60-day service availability based on the recertification standards (Hackbarth, 2008). The overall average length of service, regardless of diagnosis increased significantly between 2000 and 2012 from 54 to 72 days (MedPAC, 2013; NHPCO, 2013). More specifically, patients with longer a length of service increased substantially from 141 to 241 days (MedPAC, 2013).

When examining patient diagnostic statistics, the details of the average length of service become clearer. Since 2000, the average length of service for patients with cancer has maintained around the average of 50 days (MedPAC, 2013). However for patients with neurological conditions such as Alzheimer's Dementia, the number of average length of service days increased from 63 in 2000 to 137 in 2011 and accounts for the diagnosis with the largest length of service to date (MedPAC, 2013).

With the majority of hospice patients having a diagnosis other than cancer, hospices are having patients on their services much longer than before. According to NHPCO (2013), this difference in length of service over time could be a result of a combination of factors such as disparities in the access of care, disease trajectory, and timing of referral to hospice services.

Another perspective that has been presented in the literature is that there is a difference in length of service depending on agency ownership status. Patients utilizing

for-profit hospice agencies have an average of 102 days on hospice services while those serviced under not-for-profit agencies have an average of 69 days of service (MedPAC, 2013). It has been suggested that because of the profitability of reducing average daily costs, for-profit hospices are more likely to admit patients with longer expected lengths of service (Lindrooth, 2007; MedPAC, 2013; Nicosia et al., 2009).

To investigate this hypothesis further, Wachterman et al. (2011) conducted a cross-sectional study from the data of the 2007 National Home and Hospice Care Survey. Their results showed that compared to not-for-profit providers, for-profit hospices tended to have a higher proportion (67%) of patients with a diagnoses that require less skill needs such as a dementia diagnosis than cancer patients (Wachterman et al., 2011). In addition, the Wachterman et al. (2011) study revealed that for-profit agencies were less likely to have patients with less than 7 days expected length of service and more likely to have patients with length of service longer than 1 year.

This analysis revealed similar results of the Carlson et al. (2004) study that analyzed the 1998 National Home and Hospice Care Survey. The results of the study indicated that patients utilizing for-profit hospice services were less likely to receive high skill services (Carlson et al.,2004). These high skill services, such as continuous care, durable medical equipment as well as supporting medical supplies, are a significant part of the needs that patients have at the end-of-life. The infrequent admission of patients with less skill needs at for-profit hospices could highlight the possible need to examine quality of services being provided to patients under the care of these agencies.

These studies reinforce the claims made by the MedPAC commission (2009; 2013) who indicated that there is a strong correlation between hospice profitability and

patient length of service. Since the policy does not mandate daily patient visits or differentiate between patient diagnoses, some hospices continue to admit a disproportionate amount of patients that require less need but allot the same financial gains of intensive needs patients due to longer lengths of service availability. Financial incentive can also create more competition between hospices. The following section will compare how marketing practices and access to hospice services are affected by agency ownership status.

# **Marketing and Access**

When resources are limited, there is a potential to generate a competitive environment in any setting. When it comes to hospice agencies, the competition is based on who can provide the best end-of-life care at the lowest cost. While for-profits have a bottom line of maximizing profit margins to satisfy investors, not-for-profits aim at social missions that are not always reimbursable. Not-for-profits are more likely to engage in charitable activities than for-profits (Aldridge et al., 2014). But these charitable initiatives can be challenging as seeking grant funding opportunities and donations are not as prevalent in for-profit agencies as they are for not-for-profits (Froelich, 2012).

In order to meet the requirements set by stakeholders, for-profits tend to operate using a business mode that allows the maximization of corporate profit. Business strategies are standardized across the agency and include both clinical staff as well as administrative staff (Froelich, 2012). In order to have patients that have longer length of stay potential and less service needs, these agencies tend to influence their patient mix by the referral networks that they have established (Gandhi, 2012). In addition, Froelich (2012) notes that sales representatives utilized under the nomenclature of community

educators are utilized to directly seek and monitor potential hospice patients. This practice goes hand-in-hand with admitting patients at the early stages of their disease process to maximize the potential profit longer lengths of stay can generate (Froelich, 2012).

Advocates of for-profit hospice providers point out the fact that for-profits tend to have a higher rates of outreach to minority and low-income communities, thereby minimizing the disparities of hospice use seen with these groups (Aldridge et al., 2014). Since for-profit agencies have more access to funding opportunities through capital markets, they are able to reach a larger part of the hospice population by things such as, size of the agency as well as name recognition from longevity of being a provider ("The Debate in Hospice Care, 2008).

Of the patients served by hospice agencies in 2012, only 18% were non-White recipients (NHPCO, 2013b). Of the total population, NHPCO (2013b) reports about 9% identify as Black or African American, about 7% identify as multiracial or other, about 3% Asian, Hawaiian, or other Pacific Islander, and less than 1% report being American Indian or Alaskan Native. When examining ethnicity, about 8% of Hispanic hospice recipients identify as Hispanic or Latino in origin. In their study, Aldridge, et al. (2014) noted that compared to the 48% of not-for-profit hospices engaging in outreach initiatives, 59% percent of for-profit hospices reached more of the these populations. Similar results occurred when examining not-for-profit versus for-profit outreach programs geared towards low-income communities, yielding 46% and 61% respectively (Aldridge et al., 2014).

Despite the proposed access benefits, the profit aims and practices of some forprofit hospice providers, there are financial repercussions. The next section of this paper will review the costs of hospice care and the reimbursement policy that all hospices are subjected to if they exceed the funding limitations for the fiscal year.

# The Cost of For-Profit Hospice Service

Patients with very long lengths of service (longer than 180 days) account for over one half of Medicare spending costs in recent years and has caused some concern regarding the reimbursement policy (Evans, 2014). Part of the Hospice Medicare Benefit policy to mitigate excessive Medicare costs is an annual expenditure limit that is enacted is a hospice provider's payments exceed that year's funding limit multiplied by the total number of patients (Ata et al., 2008; MedPAC, 2013). The policy details that if the hospice exceeds that sum of money, set at \$ 26,157.50 for the 2013 fiscal year, the agency must reimburse the excess amount to the benefit program (CMS, 2013; MedPAC, 2013).

Very long lengths of service and the rapid increase in for-profit providers has contributed to more hospices (22% of for-profit vs. 4% of not-for-profit) exceeding the set limit in recent years (Aldridge, 2014; CMS, 2014a; MedPAC, 2013). In addition, for-profits have had higher (10%) disenrollment of live patients than not-for-profits which may suggest that for-profits enroll too many patients with longer length of service and then discharge them to reduce costs (Aldridge et al., 2014). This practice may also be a counteraction to the increase in providers declaring bankruptcy due to the excessive reimbursement amounts during the past few years (Sack, 2007).

With Medicare costs reaching all-time highs for hospice service availability, financial decisions have been made that have the potential to affect patient care. One aspect of hospice service availability that has been affected is the availability of social service. The next section will review the current state of hospice social work in the United States.

# The Current State of Hospice Social Work

According to the Hospice Medicare policy, psychosocial services provided by hospice include support for mental and emotional well-being for both patient and family which are inclusive of grief support and respite for the caregiver (CMS, 2008). In addition, resource education and linkage are key components in helping patients and families with end-of-life issues such as financial impacts and advanced directive support needs (NHPCO, 2013). Though the aforementioned elements can be examined by several members of the interdisciplinary team, the team social worker is the main professional that addresses these issues due to their expertise in client-centered and culturally competent crisis intervention, counseling and resource linkage (Christ & Blacker, 2009; NASW, 2005; Reese, 2013; Reese & Raymer, 2004).

Research scholars have advocated that hospice social service an integral part of assisting in the support needed at the end-of-life (Christ & Blacker, 2009; Saunders, 2011; Reese, 2013). In addition, the NASW Standards of Social Work Practice for Palliative and End-of-Life Care indicates that social workers aim to address quality-of-life deficiencies from a person-in-environment perspective and advocate for optimal care based on patient and family needs, cultural norms and abilities (Christ & Blacker, 2009; NASW, 2004).

More specifically, social worker expertise in facilitation of communication allots for optimal collaboration between all parties actively and potentially involved in care including patients and their respective families, team members, administrators, liaisons, referral sources, as well as community members (Christ and Becker, 2009; Reese and Raymer, 2004). Social workers have the skills to navigate the complex medical and social systems which uniquely help guide patient care in the proper manner (Christ and Becker, 2009).

As the largest groups of mental health professionals involved with hospice care per Christ and Becker (2009), the social work client-centered perspective can foster maximized coping skills in addressing end-of-life issues such as grief, depression, anxiety, and suicide ideation. Hospice social workers can provide psychosocial education to patients and families regarding psychosocial effects of the disease process, daily tasks that can help address quality of life deficits, and community resource availability (NASW, 2004; Christ & Becker, 2009). In addition, social work competency in advocacy and bioethical issues such as the cessation of artificial feeding and election of non-resuscitation makes their presence on the hospice team all the more warranted (Taylor-Brown et al., 2001).

Reese and Raymer (2004) note in their study that social work involvement in the hospice process was significant related to addressing more patient issues and better team functioning. Better team functioning is thereby correlated with costs and the level of services provided (Reese and Raymer, 2004). The Reese and Raymer (2004) study also revealed that by having more patient issues addressed, costs are reduced by having a

reduction of additional visits by other team members as issues were effectively being addressed.

However, the medical social workers on hospice teams have either been underutilized for the skill sets they possess and/or over-utilized in the wrong capacities (i.e. performing duties outside of the social work profession) (Reese & Raymer, 2004). Kulys and Davis (1986) revealed in their study that hospice directors did not view social workers as members of the team that are uniquely qualified to provide psychosocial support. In fact, the only skills that social workers were seen to overwhelmingly be qualified for from the director's perspective were the case management duties of financial counseling and community referrals/linkage. There has been slight improvement in the perception reported by contemporary hospice directors compared to the results revealed in the 1986 Kulys and Davis study. However, according to Reese (2011), an expansion of the Kulys and Davis study showed that the social workers are not engaged in over half of the duties ascribed to them by the profession.

Though one study shows slight improvement in the perceived value of hospice social workers, policies do not reflect this data. As of 2008, individuals employed as hospice social workers only require one year of social work experience in a health care setting and a baccalaureate degree in any social service field (i.e. psychology, sociology, or other field related to social work) (Center for Medicare Advocacy, Inc., 2010). This is a reduction in qualification, creating more vague placement for an already devalued member of the hospice team as in the initial conditions in 1983 mandated that the individual enacting in the hospice social worker role needed to specifically have a degree in social work (Center for Medicare Advocacy, Inc., 2010). Despite social work

organizations such as NASW and the National Hospice and Palliative Care Organization discouraging the changes, they were finally approved causing National Hospice and Palliative Care Organization, National Council of Hospice and Palliative Professionals, Social Worker Section, Guidelines for Social Work in Hospice were updated to reflect the change (Reese, 2011).

In addition to qualification changes, the focus of Medicare participation in providing hospice services was re-directed from the focus on frequency of visits by hospice team members to the outcome measures of each discipline (Center for Medicare Advocacy, Inc., 2010). The aforementioned decision led to further decline in utilization of social workers on the hospice team (Center for Medicare Advocacy, Inc., 2010). This means that since there was no longer a regulatory mandate of social work visit frequency, the decision to reduce social worker involvement to and "as needed" basis was established to improve cost efficiency despite empirical support of cost effectiveness of the hospice social worker involvement.

Literature reflects that for profit hospices may actually practice this concept of "as needed" social work service availability more commonly than not-for-profit providers.

Studies indicate that some for-profit hospice agencies employ less psychosocial staff members who are master's level medical social workers (Cherin et al., 2010; Gandhi, 2012). This is in spite of the notion that education level can have an impact on skill sets such as critical thinking and problem solving (Cherin et al., 2010). More specifically, hospice social worker qualifications have been shown to be significantly related to agency costs as well as patient outcomes (Reese and Raymer, 2004).

Some studies indicate that patients receive less social work visits overall when enrolled under for-profit services (Gandhi, 2012; Watcherman et al., 2011). In addition, the Watcherman et al. (2011) study revealed those patients with dementia received half of the amount of social work visits that cancer patients received despite them accounting for the majority of the patient census. This is in contrast with the social workers at the not-for-profit agencies who provided a similar amount of visits regardless of diagnosis (Wachterman et al., 2011).

As indicated by previous studies, there have been variations in service availability by not-for-profit and for-profit hospice providers. More specifically, marketing towards and admission of patients with longer lengths of service on average as well as reduction in the use of medical social workers for patient care at for-profit hospice agencies. This impacts not only funding as indicated by the Medicare hospice policy restrictions, but also the mental, emotional, and social support that patients and families receive or lack thereof.

This study will examine these dynamics further by further analyzing hospice social service availability, delivery in regards to frequency, as well as types of psychosocial services offered by providers. In addition, patient as well as friend and family member utilization of these services will be examined. Lastly, the factors associated with the utilization of hospice psychosocial services will be assessed. The next section will detail this study's design, data sources, and method of analysis.

## **Research Questions and Hypotheses**

Service availability was identified as whether or not the hospice agency makes specific psychosocial services available to consumers. Specifically, psychosocial service

availability is identified by the availability of the following services: 1) medical social services, 2) medical social service visit frequency, 3) grief/bereavement counseling, 4) resource referral services, 5) metal health services, 6) respite care services, 7) advanced directive support, 8) ethical issues counseling, 9) interpreter services, 10) homemaker services, 11) transportation services, 12) companionship services, 13) Meal on Wheels, and 14) advanced directive support.

Service utilization was examined by assessing whether or not a service was utilized by the consumer as not all services are mandatory in order to receive services. Specifically, psychosocial service utilization includes 1) medical social services, 2) bereavement services, 3) resource referral services, 4) mental health services, 5) respite care services, 6) ethical issues counseling services, 7) interpreter services, 8) homemaker services, 9) transportation services, 10) Meals on Wheels services, 11) the caregiver wellness program, 12) spiritual services, 13) difficult behavior services, 14) safety training, and/or 15) used abuse/neglect services.

Agency size was identified by the current number of hospice patients using the service. Agency type was identified by whether or not the hospice is freestanding or a part of a hospital. Patient needs were identified as the total activities of daily living (ADLs) that the patient needs help with (i.e. dressing, bathing, transferring, walking, and eating).

Research Question 1: Does hospice agency ownership status predict psychosocial service availability when controlling for agency size and chain status?

Hypothesis 1a: When controlling for agency size and chain status, for profit hospices are less likely to have psychosocial services available to hospice patients and families than for other agencies.

**Research Question 2:** Does hospice agency ownership status predict psychosocial service utilization by patients and families when controlling for chain status and patient total activities of daily living (ADL) needs?

<u>Hypothesis 2a</u>: When controlling for patient ADL needs as well as agency chain status, patients and families that are under the care of for profit hospices are less likely to utilize psychosocial services than those under the care of not-for-profit and government owned hospice agencies.

**Research Question 3:** What are the most frequently utilized hospice psychosocial services and what are the factors associated with patient and family utilization of these services?

Hypothesis 3a: Patients and families that have higher psychosocial needs (e.g. Medicaid recipients, patients with higher total activities of daily living needs, and underserved individuals) as well as higher need diagnoses (such as cancer) are more likely to utilize hospice psychosocial services than others. Specifically, medical social services such as respite & resource referral services will be utilized the most.

### **CHAPTER III: METHOD**

## **Research Design**

A retrospective cross-sectional study design of the 2007 National Home and Hospice Care Survey (NCHS, 2007) was used to conduct this study. The study differentiates from the few studies that have utilized this data set because of the unique, comprehensive analysis of hospice psychosocial services within the United States. No other study has examined all of these discipline specific services, the utilization of these services by hospice consumers, nor the characteristics associated with psychosocial service use. This study may provide researchers, clinicians, policy makers and stakeholders with comprehensive knowledge and foundational insight into the state of hospice psychosocial services being offered and utilized nationally.

#### **Ethical Considerations**

This study was deemed exempt by the international review board (IRB) of Florida International University since the data that was used has been de-identified and made publically available.

#### **Data Source**

The data used in this study was derived from the 2007 National Home and Hospice Care Survey (NHHCS) which was conducted by the United States Department of Health and Human Services, Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS, 2007). The parent study was a part of the NHHCS Series that collected nationally represented sample data from home health and hospice agencies along with their respective discharged as well as current patients and families (NCHS, 2007). The surveys were developed to address the data needs of the stakeholders,

who plan, implement, regulate and set standards for, and/or provide long-term care services (NCHS, 2007).

The study was initially conducted in 1992 and subsequently replicated in 1993, 1994, 1996, 1998, 2007, and 2007 (NCHS, 2007). The 2007 survey was restructured and expanded to include and larger sample sizes, computer-assisted personal interviews (CAPI), and new data items such as psychosocial service delivery and utilization (NCHS, 2007). This study will utilize the most recent data set, the one published from 2007, due to the specific psychosocial variables that were elicited by the data collection tool.

Method of data collection. The investigators of the 2007 NHHCS utilized face-to-face interviews with the participating agency staff and directors; however only patient agency records were used to collect the data regarding discharged patients and their respective families and/or friends (NCHS, 2007). Data regarding date of establishment, services, staffing characteristics, programs, and referral sources related to each agency was collected by evaluating agency records (NCHS, 2007). NCHS (2007) reported that the patient data that was evaluated was made available in agency medical records and included items such as demographics, diagnosis, length of service, advanced directives, and services received.

Sampling design. In order to obtain the final sample, a two-stage probability sample design was developed (NCHS, 2007). First, the NCHS investigators selected a universally represented sample of hospice and of home health agencies among the 15,488 available across the United States at that time (NCHS, 2007). This information was cross referenced between three sources: 1) The National Hospice and Palliative Care Organization file of hospices, 2) The Centers for Medicare & Medicaid Services Provider

of Services file of home health agencies and hospices, and 3) State licensing lists of home health agencies compiled by a private organization (NCHS, 2007).

Metropolitan statistical area (MSA) and agency type (i.e. hospice, hospice and home health, or only home health) were then established as the first sampling strata (NCHS, 2007). Then agencies were organized by size (based on number of employees), census region, state, county, ZIP code, ownership, and Medicare certification status (NCHS, 2007). Systematic random sampling was utilized with probability proportional to size which yielded a sample of 1,545 agencies (NCHS, 2007).

Of the sample, 84 agencies were not included in the sample either because they merged with other sampled agencies, were out of business, were duplicates of another agency that was a part of the sample, or did not meet the definition used in the survey as a hospice or home care provider (NCHS, 2007). Of that sample, NCHS (2007) reports that 1,036 hospice and home health agencies agreed to participate in the study. A total number of 4,983 discharged hospice patients were sampled, 250 of which were excluded because of any of the following reasons: 1) out of the scope of the study, 2) refusal, 3) no response, 4) record problems, 5) ran out of time, or 6) problems with consent (NCHS, 2007). This resulted in the sample of 4,733 hospice discharge patient cases. For this study, hospice agencies that were also home health agencies were excluded from the data analysis which yielded 359 hospice agencies and 2415 patient cases.

The second phase of data collection of the NCHS (2007) study was conducted during the agency interviews. Patients were randomly selected per agency with up to 10 discharged hospice patients selected by computerized algorithm on the bases of agency director or designee provided census list (NCHS, 2007). NCHS (2007) defined hospice

discharges as those patients who died or were discharged during the 3-month time frame 4 months prior to the study's agency interview.

Data collection: NCHS (2007) reports that data for the NHHS study was collected from August 2007 until February 2008. The NCHS investigators mailed a self-administered staffing questionnaire to the agency directors who were subsequently asked to have the forms completed prior to the face-to-face interviews (NCHS, 2007).

Interviewers were provided with a five module computer-assisted personal interviewing (CAPI) instrument that was uploaded electronically on laptops (NCHS, 2007). The CAPI modules consisted of Patient Charges and Payments (PA), Patient Sampling (PS), Aide Sampling (AS), Agency Qualifications and Characteristics (AQ), and Patient Health (PH) (NCHS, 2007). Interviewers were able to administer the modules based on designated agency staff availability due to the preliminary screening of eligibility by the AQ module that explored agency characteristics and qualities (NCHS, 2007). According to NCHS (2007) the PH module elicited data regarding hospice agency discharges as indicated in patient medical records. The NHHCS data collection procedures were reported by NCHS (2007) as follows:

"(1) An advance package of NHHCS information, including a letter from the NCHS director, was mailed to the director of each sampled agency, informing him/her of the purpose, content, and authorizing legislation of the survey and that he/she would be contacted by telephone to schedule an appointment. The advance package included letters of support from the National Hospice and Palliative Care Organization and from the National Association for Home Care and Hospice. Also included in the package was a copy of an NCHS report—The Use of Computerized Medical Reports in Home Health and Hospice Agencies: United States, 2000—to illustrate how the survey data can be used to present important findings in the industry.

- (2) After the package was mailed, the interviewer telephoned the sampled agency to speak to the director, explain the survey in further detail, address any questions or concerns about NHHCS, and schedule an in-person interview with the director. (3) After the interviewer successfully scheduled an interview, a confirmation package was mailed to the director. This package included a confirmation letter with details about agency information the interviewer would need to complete the interview, in addition to the self-administered staffing questionnaire that the director was expected to complete by the day of the agency interview.
- (4) At the in-person agency interview, the interviewer collected the completed staffing questionnaire and administered the AQ module of CAPI. Provided the agency was eligible to participate in the survey, the interviewer sampled up to 10 current home health patients/hospice discharges using the PS module of CAPI. In mixed agencies, a combination of up to 10 current home health patients and hospice discharges were sampled, usually 5 of each; if 5 of either group was not available, the interviewer sampled more from the group that had more than 5 on the census list. The interviewer completed the sampling exercise by cleaning (e.g., identifying and removing duplicate names on a list of current home health patients) and numbering the census lists and entering the total number of current home health patients and/or hospice discharges into CAPI. Subsequently, CAPI randomly selected 10 numbers based on the total number of current patients/hospice discharges that were entered into the computer algorithm. The sampled patients/discharges were those corresponding to the randomly generated numbers in the census list.
- (5) The interviewer met with designated staffs that were familiar with the sampled patients/discharges and their care and collected information on the survey items in the PH and PA modules for each sampled patient/discharge. The respondents referred to patient medical records, administrative records, and medication administration records to answer the survey items. No patients or families/friends were interviewed directly."

Researchers reviewed the data to ensure accuracy, consistency, thoroughness, as well as logical responses were provided (NCHS, 2007). The *International Classification of Diseases, 9th Revision, Clinical Modification* was used to code the resulting medical information elicited from the PH module. The NCHS (2007) authors note that for each case, one primary admission diagnosis and the hospice discharge diagnosis was collected with up to five procedures per sampled case.

Data management. The data for the 2007 NHHCS is maintained by the Interuniversity Consortium for Political and Social Research (ICPHR) National Archive of Computerized Data on Aging (NACDA) (NCHS, 2007). Data was accessed through the ICPHR website due to required membership privileges. Patient and agency data was deidentified and coded with identification numbers to maintain confidentiality.

# **Data Analysis**

The Statistical Package for Social Sciences (SPSS) 19 statistical software (IBM SPSS Statistics, 2010) was used to run the statistical analysis for this study. To evaluate the types of patients and families that utilize hospice psychosocial services, chi-square tests were utilized. Hierarchal linear as well as hierarchical logistic regressions were used to assess the likelihood of psychosocial service availability as well as patient and family psychosocial service utilization based of hospice agency ownership status. These models were selected due to the outcomes being binary as well as the need to control for cofounding variables. A separate analysis was conducted for each variable.

#### **Selected Data Variables**

The independent variable for research question number one was hospice agency ownership status and the dependent variables were as follows: 1) medical social services, 2)

grief/bereavement counseling, 3) resource referral services, 4) metal health services, 5) respite care services, 6) assessment of patient advanced directive status, 7) provision of advanced directive information, 8) provision of advanced directive forms, 9) educating the patient about advanced directives, 10) only providing advanced directive information when asked, 11) having restrictions on implementing advanced directives, and 12) ethical issues counseling. The covariates for research question number one were 1) agency size and 2) agency chain status.

The independent variable for research question number two was ownership status. The dependent variables were as follows: 1) used medical social services, 2) medical social service visit frequency, 3) used resource referral services, 4) used mental health services, 5) used respite care services, 6) used ethical issues counseling services, and 7) used bereavement services. The covariates for research question number two were 1) agency chain status and 2) patient total activities of daily living (ADL) needs.

Hospice agency chain status, agency size and patient ADL needs were treated as covariates as literature suggest that the volume of an agency as well as patient care needs can have an impact on the outcomes observed in healthcare settings (Halm, 2002; Saxena, Car, Eldred, Soljak, & Majeed, 2007; Wharton, Keely, & Grines, 2005). Multiple imputations were used to account for missing survey response data.

The independent variables for research question number three were 1) primary diagnosis, 2) cognitive status, 3) patient total ADL needs, 4) level of care, 5) length of service (days on hospice), 6) payer source, 7) age at discharge, 8) race (including American Indian, Asian, Black/African-American, Pacific Islander, or White), 9) ethnicity (Hispanic or non-Hispanic), 10) gender, 11) marital status, 12) veteran status,

13) caregiver status, 14) identification of the patient caregiver, 15) household membership, 16) location of service at the beginning of hospice, and 17) location of service at the end of hospice.

The dependent variables were the following: 1) used medical social services, 2) medical social service visit frequency, 3) used resource referral services, 4) used mental health services, 5) used respite care services, 6) used ethical issues counseling services, 7) advanced directive status and psychosocial service utilization, 8) used interpreter services, 9) used homemaker services, 10) used transportation services, and 11) used Meals on Wheels services. The following variables were also examined as services that can provide patients and families with additional psychosocial benefits while under hospice care: 1) pastoral care services, 2) volunteer services, 3) companionship services, 4) homemaker services, and 5) complimentary alternative medicine (CAM) (including acupuncture, aromatherapy, art therapy, message, music therapy, pet therapy, therapeutic touch, and/or transcutaneous electrical nerve stimulation) (Demmer, 2004; Nicholas, Sullivan, Ide, Shreffler-Grant, & Weinert, 2005; Reese, 2013).

For variables specific to caregiver services, the dependent variables will be 1) used bereavement services, 2) used caregiver health and wellness services, 3) used spiritual care services, 4) used dealing with difficult behavior services, 5) used safety training services, 6) used suspected abuse or neglect services, and 7) used resource referral information services.

Agency demographic variables were 1) average patient census, 2) amount of years that the hospice agency has been in operation, 3) amount that are Joint Commission for Accreditation of Healthcare Organizations (JCAHO), 4) availability of a social worker on

staff or contracted with the agency, 5) availability of medical social services, 6) availability of mental health services, 7) availability of grief and bereavement services, 8) availability of ethical issues counseling, 9) availability of resource referral services, 10) availability of respite care services, 11) availability of transportation services, 12) availability of Meals on Wheels services., 13) availability of interpreter services, 14) availability of patient materials translated into languages common to the service area, 15) multilingual staff, and 16) availability of cultural competence training.

### **CHAPTER IV: RESULTS**

# **Descriptive Statistics**

Agency demographics. Of the data that was used in this study, 95 were for profit and 264 were classified as other (either private not-for-profit or government owned). For profit agencies had an average of 75 patients while private not-for-profit and government hospice agencies had an average of 70 patients. For profit hospice agencies were established within 8 years of when the parent study was conducted between 2006 and 2007 while other agencies had been established within about 18 years of the parent study. Results indicated that 7 for profit agencies were Joint Commission for Accreditation of Healthcare Organizations (JCAHO) certified and 87 of the other hospice agency types were certified.

According to the results, 85% of for profit hospice agencies had social workers on staff while 75% of other hospices had a social worker on staff. Of the for profit agencies, 99% had medical social services available while 92% of other agencies had this service available. Among for profit agencies, 41% had mental health services available while 47% of the other agencies had this service available. Grief and bereavement services were made available by 97% of all hospice agencies. Results indicated that 68% of for profit hospices had ethical issue counseling services available and 75% of the other agencies had this service available. Results indicated that 80% of for profit agencies made referral services available and 85% of other agencies had resource referral services available. (see Figures 1 and 2)

Figure 1. Sampled Hospice Agencies

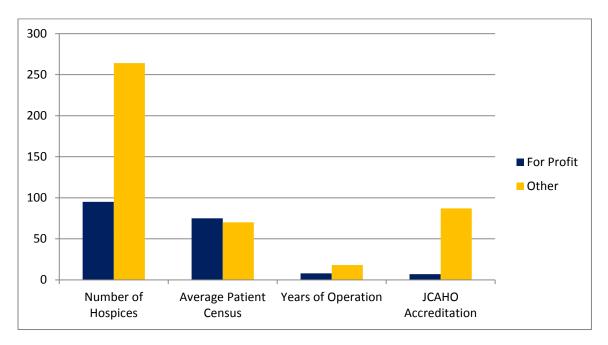
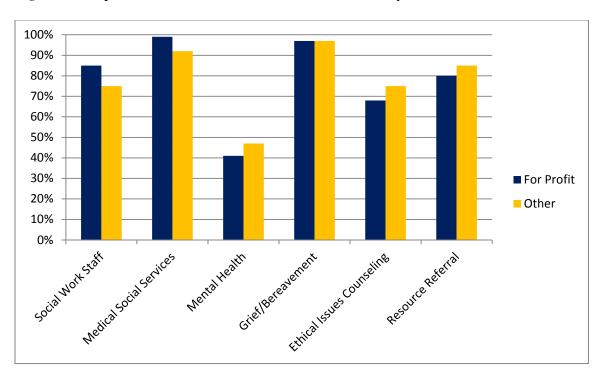
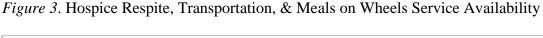
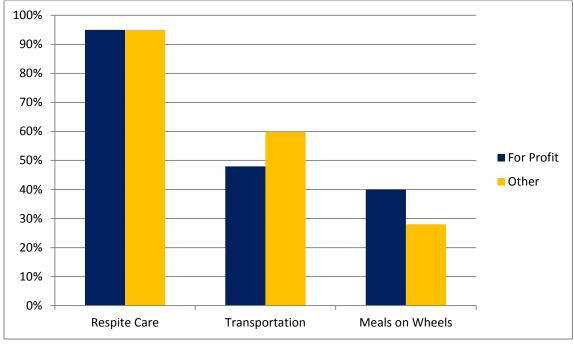


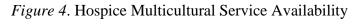
Figure 2. Hospice Medical Social Work Service Availability

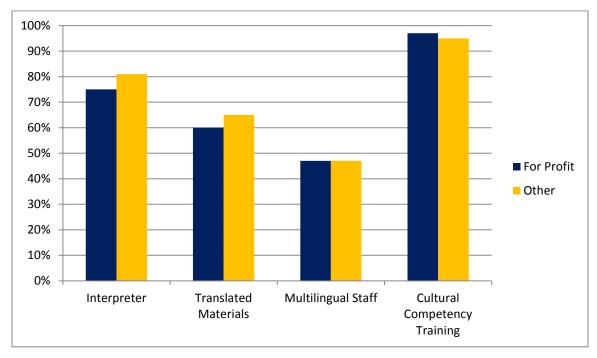


Among all of the hospice agencies, 95% had respite care available. According to the results, 48% of for profits had transportation services available and 60% of other providers had this service available. 40% of for profit hospices had Meals on Wheels services available while 28% of other agencies had Meals on Wheels services. Interpreter services were made available by 75% of for profit hospices and 81% of other hospices provided this service. Results indicated that 60% of for profit agencies offered patient-related materials that were translated into commonly represented languages within their respective community while 65% of other hospice agencies had these materials available. Of all hospice agencies, 47% had multi-lingual staff available. Provision of cultural competency training was made available by 97% of for profit agencies and 95% of other hospice providers. (see Figures 3 and 4)

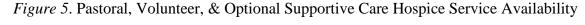


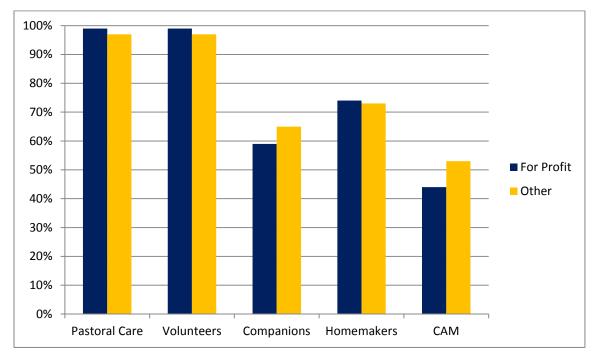






According to the descriptive statistics, pastoral care services were made available by 99% of for hospice agencies and 97% of other hospice providers had this service available. Similarly, 99% of for profits had volunteer services available and 97% of others had volunteer services available. Among for profit hospices, 59% had companion services and 65% of others made this service available to patients. Results revealed that 74% of for profits had homemaker services available and 73% of others had homemaker services. CAM services were available at 44% of for profit hospices and at 53% of other hospices. (see Figure 5)





Patient demographics. There were at total of 2415 discharged patient cases that were analyzed in this study. Descriptive statistics show that 29% of these patients were under hospice care provided by for profit agencies and 71% were at either private not-for-profit hospices or government owned hospice agencies. For profit agencies had more patients with diagnosis of tracheal, bronchial, or lung cancer, heart failure, or late effects of cerebrovascular disease (representing 25% of the diagnoses cumulatively). At government owned or not-for-profit hospice providers, most patients were diagnosed with tracheal, bronchial, or lung cancer (11%), heart failure (6%), and unspecified chronic airway obstruction (6%). Most hospice patients had no cognitive impairment (30% at for profits and 38% at others). Most hospice patients had 4 of 5 total ADL needs (29% had 5 total ADL needs at for profit agencies and 24% had 4 total ADL needs at other hospice agencies. Routine homecare patients represented most hospice patients

(36% at for profit agencies and 57% at other agencies) and had an average of 48-50 days on hospice care (see Figures 6-15)

Figure 6. Total Patient Census

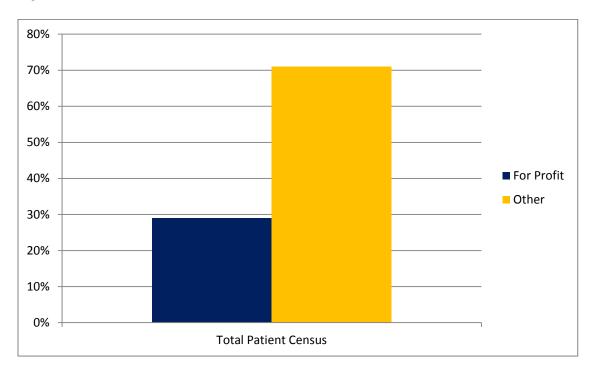


Figure 7. Most Common Patient Diagnoses at For Profit Hospices

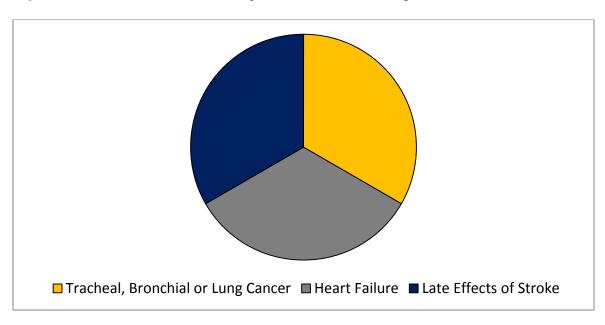


Figure 8. Most Common Patient Diagnoses at Not-for Profit or Government Owned Hospices

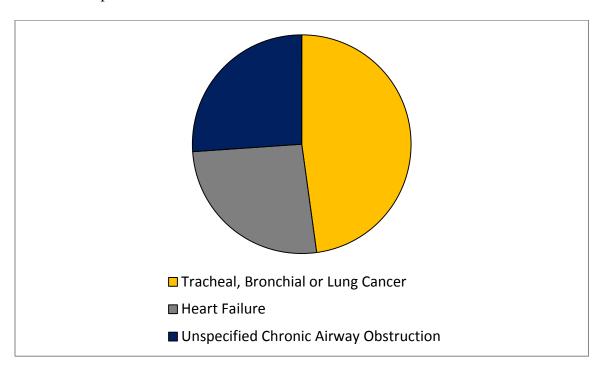


Figure 9. Average Patient Cognitive Status at For Profit Hospices

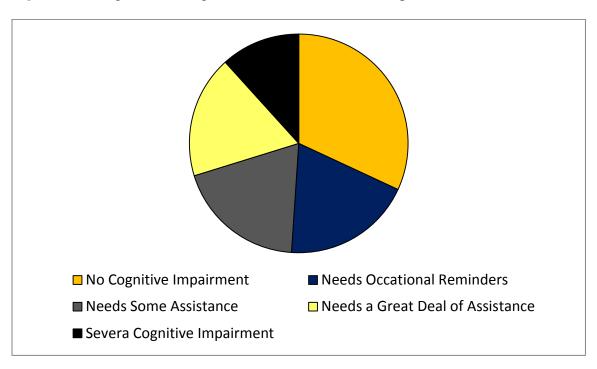


Figure 10. Average Patient Cognitive Status at Not-for-Profit of Government Owned Hospices

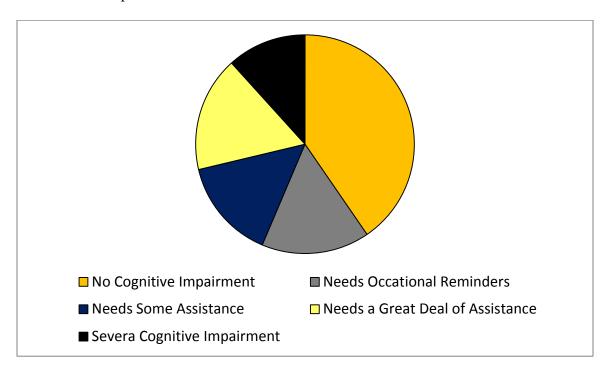


Figure 11. Average Total Patient ADL Needs at For Profit Hospices

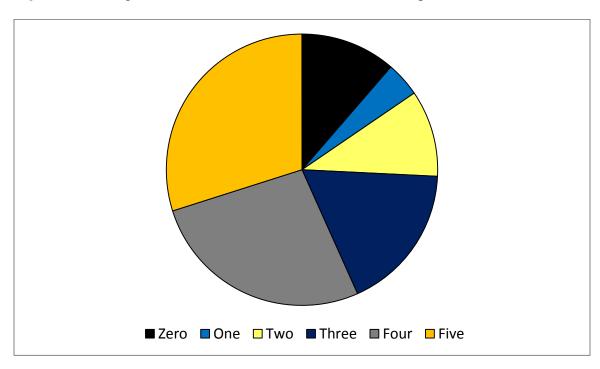


Figure 12. Average Total Patient ADL Needs at Not-for Profit of Government Owned Hospices

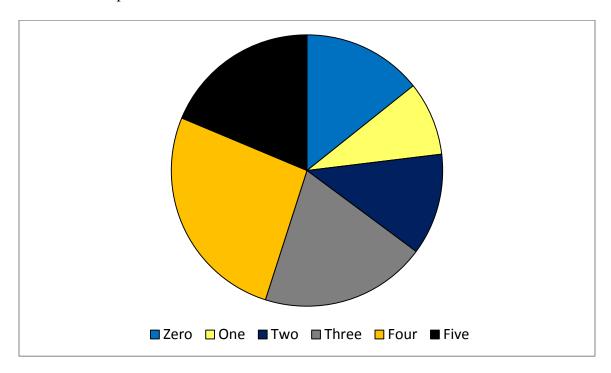


Figure 13. Average Amount of Hospice Patients with Advanced Directives

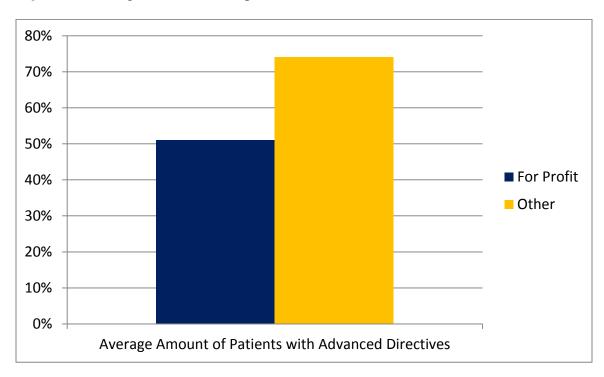


Figure 14: Average Hospice Patient Care Status

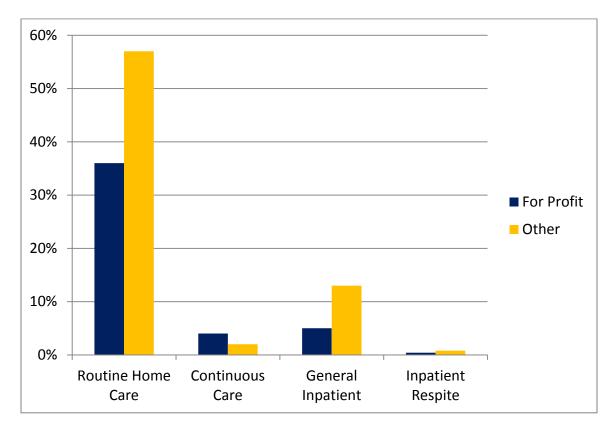
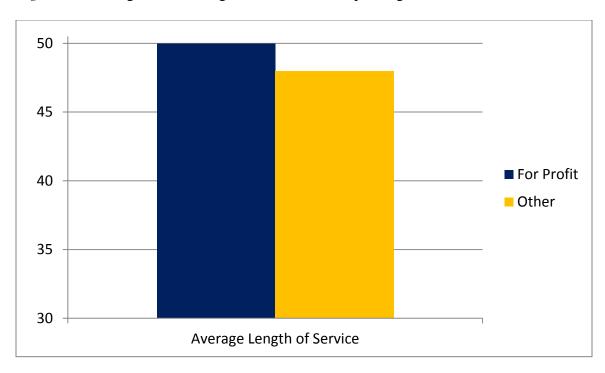


Figure 15. Average Patient Length of Service at Hospice Agencies



The average age of patients at for profit hospices was 80 while those at other providers had the average age of 75 years old. As it pertains to gender, 40% of for profit patients were male and 60% were female. At not-for-profit of government owned hospices, 45% of patients were male and 55% were female. The majority of patients were non-veterans (8% at for profit agencies and 10% at others). Most hospice patients were widowed (37% were widowed at for hospice agencies) or married (42% were married at other hospices). Most hospice patients racially identified as White (84% at for hospices and 93% at others). More specifically, 74% of patients at for profit hospices and 88% at other providers identified ethnically as White, non-Hispanic. (see Figures 16-21)

81

Figure 16. Average Age of Hospice Patients

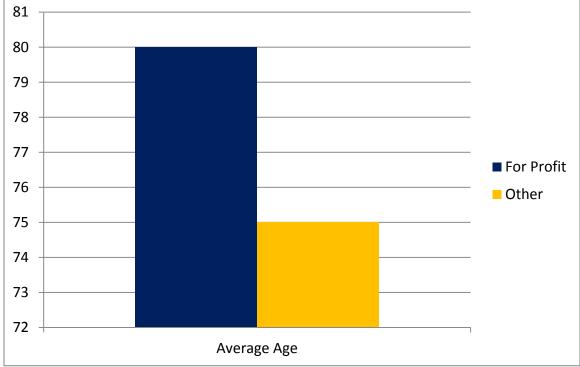


Figure 17. Average Gender and Veteran Status of Hospice Patients

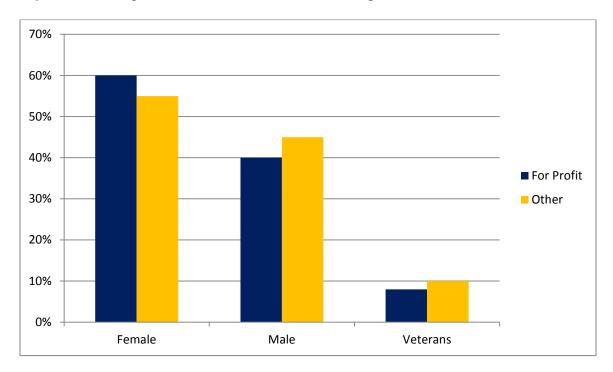


Figure 18. Average Patient Marital Status at For Profit Hospices

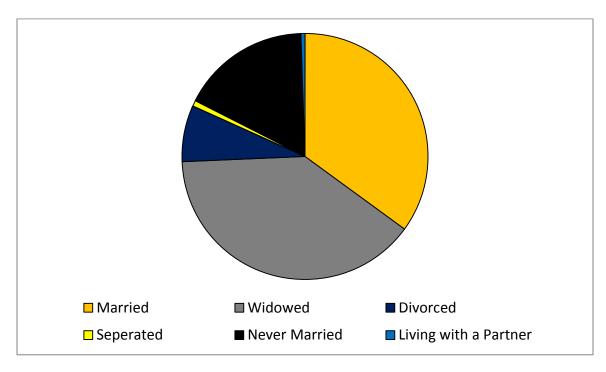


Figure 19. Average Patient Marital Status at Not-for-Profit and Government Owned Hospices

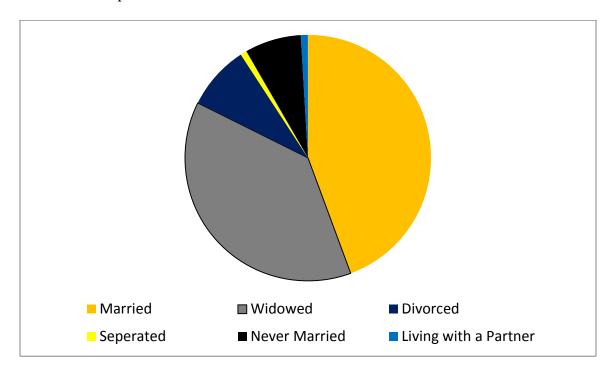
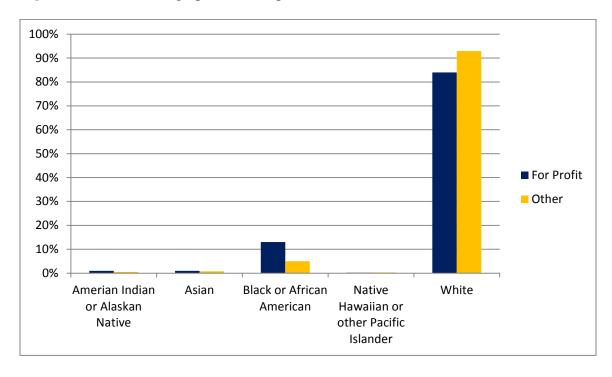
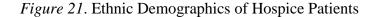
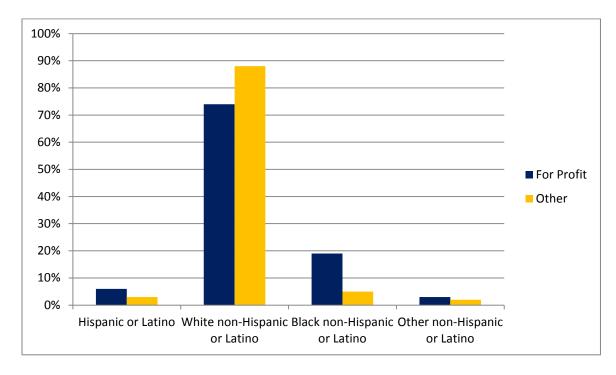


Figure 20. Racial Demographics of Hospice Patients







At all hospice agencies, most patients had Medicare as their payer source (65% at for profit agencies and 72% at other hospice providers. Most of the patients in this study had a caregiver (85% at for profits and 88% at others). Specifically most had spousal or significant other caregivers (26% at for profit and 33% at other hospice providers. The majority of hospice patients lived with family members (61% at for profits and 53% at other hospice providers). More specifically, 28% of for profit patients lived with their spouse or significant other and 32% lived with their spouse or significant other at other hospices. Most patients lived in a private home or apartment at the beginning of care (29% at for profits and 44%). Similarly, most patients lived in a private home at the end of care (25% at for profit agencies and 39% at other hospices). (see Figures 22- 28)

Figure 22. Primary Patient Payer Sources at For Profit Hospices

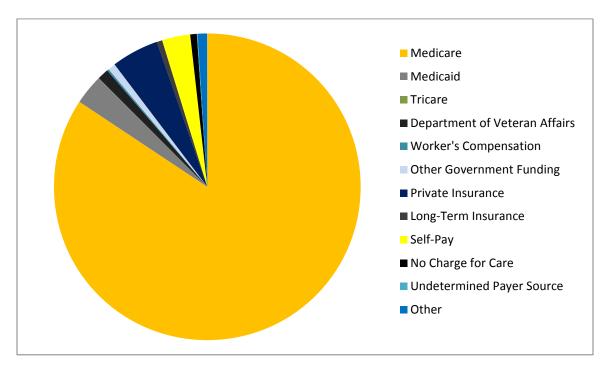


Figure 23. Primary Patient Payer Sources at Not-for-Profit and Government Owned Hospices

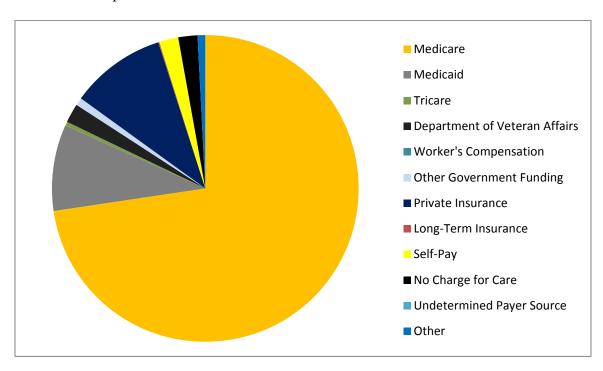


Figure 24. Hospice Patient Caregiver Status

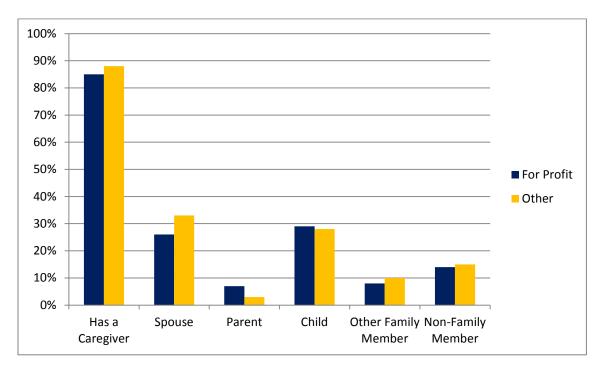


Figure 25. Hospice Patient Household Membership

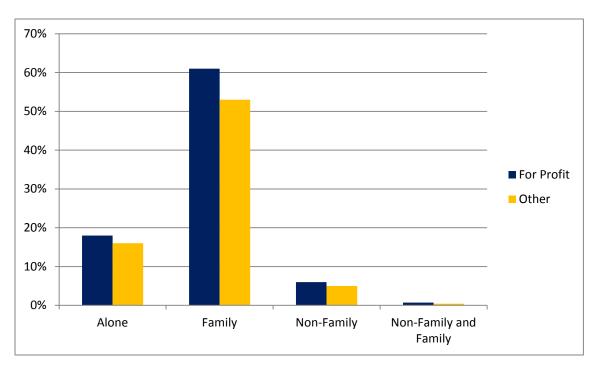


Figure 26. Hospice Patient Specific Household Membership with Family Members

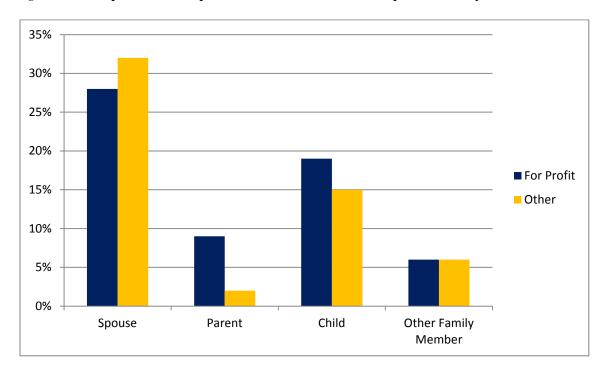
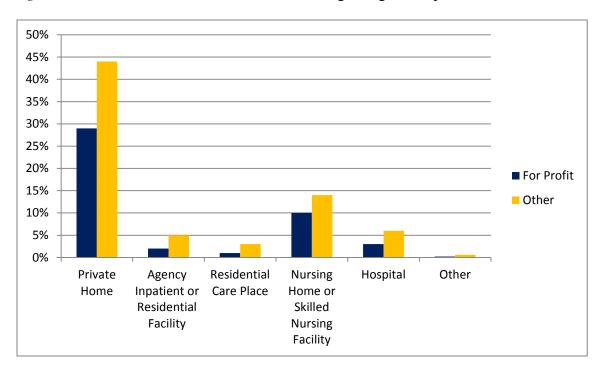


Figure 27. Patient Location of Residence at the Beginning of Hospice Care



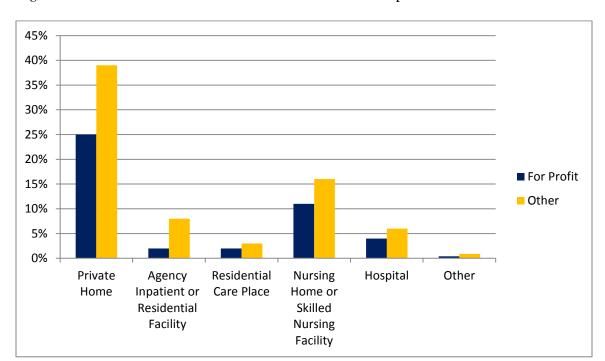


Figure 28. Patient Location of Residence at the End of Hospice Care

## **Research Question #1**

Multiple regressions were conducted to determine if hospice agency ownership status would predict psychosocial service availability. The first logistic regression that was conducted examined the probability of ownership status predicting medical social service availability while controlling for agency chain status and size. Overall, the model was significant,  $\chi^2$  (1) = 7.077, p = .008, Nagelkerke R<sup>2</sup> = .168. This model correctly predicted 93.6% of cases. Agency ownership status was a significant predictor, p = .045, and had an odds ratio of 8.309, indicating that for profit agencies are 8 times more likely to have medical social services available than hospice agencies with a different ownership status.

Secondly, the probability of ownership status predicting grief/bereavement support availability while controlling for agency chain status and size was analyzed by

hierarchical logistic regression. The overall model was not significant,  $\chi^2$  (1) = .265, p = .607, Nagelkerke R<sup>2</sup> = .023. Agency ownership status was not a significant predictor, p = .208 and had an odds ratio of 1.502. This indicates that agency ownership status may not predict the likelihood of the availability of grief/bereavement services.

The next regression that was conducted examined the probability of ownership status predicting resource referral service availability while controlling for agency chain status and size. Overall, the model was not significant,  $\chi^2$  (1) = .889, p = .346, Nagelkerke  $R^2$  = .008. Agency ownership status was not a significant predictor, p = .341, and had an odds ratio of .707, indicating that hospice agency ownership status may not predict resource referral service availability.

Next, the probability of ownership status predicting mental health service availability while controlling for agency chain status and size was analyzed. Overall, the model was not significant,  $\chi^2(1) = .041$ , p = .839, Nagelkerke  $R^2 = .033$ . Agency ownership status was not a significant predictor of mental health service availability, p = .839, and had an odds ratio of 1.061. This could mean that hospice agency ownership status may not predict mental health service availability.

The next regression analyzed the probability of ownership status predicting respite service availability while controlling for agency chain status and size. Overall, the model was not significant,  $\chi^2$  (1) = .009, p = .925, Nagelkerke R<sup>2</sup> = .022. Agency ownership status was not a significant predictor, p = .925, and had an odds ratio of 1.059, meaning that hospice agency ownership status may not predict respite care service availability.

The next regression that was conducted examined the probability of ownership status predicting advanced directive support availability by examining the following factors upon admitting the patient: 1) advanced directive status, 2) provision of advanced directive information, 3) provision of advanced directive forms, 4) educating the patient about advanced directives, 5) only providing advanced directive information when asked, and 6) having restrictions on implementing advanced directives. All of these variables were analyzed while controlling for agency chain status and size.

The model for the evaluation of patient advanced directives upon admission was not significant,  $\chi^2(1) = .175$ , p = .676, Nagelkerke  $R^2 = .283$ . Agency ownership status was not a significant predictor of advanced directive assessment, p = .687, and had an odds ratio of 1.639. The model for the provision of advanced directive information upon admission was not significant,  $\chi^2(1) = .1.414$ , p = .234, Nagelkerke  $R^2 = .094$ . Provision of advanced directive information was not significantly predicted by agency ownership status, p = .221 with an odds ratio of .462.

The model for the provision of patient advanced directive forms upon admission was also insignificant,  $\chi^2$  (1) = .006, p = .939, Nagelkerke R<sup>2</sup> = .044. Agency ownership status was not a significant predictor of advanced directive form provision, p = .939 with a .960 odds ratio. The model for education of patients of advanced directives upon admission was not significant,  $\chi^2$  (1) = .873, p = .350, Nagelkerke R<sup>2</sup> = .101. Agency ownership status was not a significant predictor of patient/family education about advanced directives, p = .395, and had an odds ratio of 2.619. The provision of advanced directive information only when asked produced a model that was not significant,  $\chi^2$  (1) =

1.116, p = .291, Nagelkerke  $R^2 = .032$ . Agency ownership status was not a significant predictor, p = .284, and had an odds ratio of 1.535.

Finally, the model for the restriction of advanced directive implementation was also insignificant,  $\chi^2$  (1) = .383, p = .536, Nagelkerke R<sup>2</sup> = .024. Agency ownership status was not a significant predictor of advanced directive implementation restrictions, p = .541, with an odds ratio of .763. These results indicate that none of the aforementioned models explained any more than 28% of the variance in each dependent variable. In addition, it does not appear that advanced directive support service availability can be predicted by hospice agency ownership status when controlling for agency size and chain status.

The last hierarchal logistic regression that was conducted was to examine the probability of availability of ethical issues counseling services based on ownership status. Overall, the model was not significant,  $\chi^2(1) = .556$ , p = .456, Nagelkerke  $R^2 = .026$ . Agency ownership status was not a significant predictor of ethical issues counseling availability, p = .454, and had an odds ratio of 7.94. It is possible that hospice agency ownership status may not predict ethical issues counseling service availability when controlling for agency size and chain status. (see Table 1)

Table 1

Hierarchal Logistic Regression Psychosocial Service Availability Based on Hospice Agency Ownership Status

			95	5% CI	
	В	Odds Ratio	Lower	Upper	p
Medical Social Services	2.117	8.309	1.049	65.810	.045*
Grief/Bereavement Support	.407	1.502	.309	7.229	.614
Resource Referral	346	.707	.347	1.442	.341
Mental Health Services	.059	1.061	.601	1.870	.839
Respite Services	.058	1.059	.319	3.519	.925
Advanced Directive (AD) Support					
AD Assessment	.494	7.582	.148	18.168	.687
AD Information	771	.462	.135	1.588	.221
AD Forms	041	.960	.333	2.765	.939
AD Education	.963	2.619	.285	24.065	.395
AD Information Only If Asked	.429	1.535	.700	3.366	.284
Restriction on AD Implementation	270	.763	.321	1.815	.541
Ethical Counseling	230	.794	.435	1.451	.454

<sup>\*</sup>  $p \text{ values} \leq .05$ 

## **Research Question #2**

Hierarchal linear regression and hierarchical logistic regressions were conducted to determine if hospice agency ownership status would predict psychosocial service utilization. The first logistic regression examined the probability of ownership status predicting medical social service utilization while controlling for agency chain status and patient total ADLs. The overall model was significant,  $\chi^2$  (1) = 62.593, p = .000, Nagelkerke R<sup>2</sup> = .131. This model correctly classified 63.8% of cases. Agency ownership status was a significant predictor, p = .000, and with an odds ratio of .426, indicating that patients at for profit hospice agencies are 4 times less likely to utilize medical social services than agencies with different a ownership status.

Next, hierarchal linear regression was used examined the probability of ownership status predicting medical social service visit frequency while controlling for agency chain status and patient total ADLs. The model explained 22% of variance in medical social service frequency (F (3, 2411) = 17.668, p < .05. There was no significant difference between for profit medical social service visits and hospice agencies with a different ownership status. Agency ownership status was not a significant predictor of medical social service visit frequency when taking into account agency chain status and patient total ADLs.

The next logistic regression examined the probability of ownership status predicting patient family/friend utilization of bereavement services while controlling for agency chain status and patient total ADLs. The overall model was significant,  $\chi^2$  (1) = 101.061, p = .000, Nagelkerke R<sup>2</sup> = .203. This model correctly classified 67.3% of cases. Agency ownership status was a significant predictor of patient/family utilization of

bereavement services, p = .000 with an odds ratio of .331. This indicates that families/friends at hospices that are for profit are 3 times less likely to utilize bereavement services than those at not-for-profit or government owned hospices.

Next, a logistic regression was conducted to examine the probability of ownership status predicting referral service utilization while controlling for agency chain status and patient total ADLs. The overall model was not significant,  $\chi^2$  (1) = 2.373, p = .123, Nagelkerke R<sup>2</sup> = .021. Agency ownership status was not a significant predictor of resource referral usage, p = .119 and had an odds ratio of 1.309.

The next logistic regression examined the probability of ownership status predicting mental health service utilization while controlling for agency chain status and patient total ADLs. The overall model was not significant,  $\chi^2$  (1) = .675, p = .411, Nagelkerke R<sup>2</sup> = .056. Agency ownership status was not a significant predictor, p = .418, and with an odds ratio of .712.

Next, the probability of ownership status predicting respite service utilization was examined while controlling for agency chain status and patient total ADLs. The overall model was not significant,  $\chi^2(1) = .000$ , p = .986, Nagelkerke  $R^2 = .016$ . Agency ownership status was not a significant predictor, p = .986, and with an odds ratio of 1.004.

The final logistic regression examined the probability of ownership status predicting ethical issues counseling utilization while controlling for agency chain status and patient total ADLs. The overall model was not significant,  $\chi^2$  (1) = .004, p = .950, Nagelkerke R<sup>2</sup> = .019. Agency ownership status was not a significant predictor, p = .950, and with an odds ratio of 1.015. (see Tables 2 and 3)

Table 2

Hierarchal Logistic Regression Psychosocial Service Utilization Based on Hospice Agency Ownership

		_		959	% CI	
	В	S.E.	Odds Ratio	Lower	Upper	p
Medical Social Services	821	.109	.426	.345	.528	.000*
Bereavement Services	-1.105	.112	.331	.266	.412	.000*
Resource Referral Services	.269	.173	1.309	.993	1.836	.119
Mental Health Services	339	.419	.712	.313	1.620	.418
Respite Care Services	.004	.215	1.004	.659	1.529	.986
Ethical Counselling Services	.014	.232	1.015	.643	1.600	.950

<sup>\*</sup>  $\overline{p}$  values  $\leq .05$ 

Table 3

Hierarchal Linear Regression Medical Social Service Visit Frequency Based on Hospice Agency Ownership Status

	В.	S.E.	p
Medical Social Service Visit Frequency	.463	.360	.198

<sup>\*</sup> p values  $\leq .05$ 

## **Research Question #3**

To examine the overall utilization of psychosocial services in addition to the characteristics of patients and caregivers that used these services, cross tabulations were conducted. The independent variables for research question number three were 1) primary diagnosis, 2) cognitive status, 3) patient total ADL needs, 4) level of care, 5) length of service (days on hospice), 6) payer source, 7) age at discharge, 8) race (including American Indian, Asian, Black/African-American, Pacific Islander, or White), 9) ethnicity (Hispanic or non-Hispanic), 10) gender, 11) marital status, 12) veteran status, 13) location of service at the beginning of hospice, 14) location of service at the end of hospice, 15) caregiver status, 16) identification of the patient caregiver, and 17) household membership.

The dependent variables were the following: 1) used medical social services. 2) medical social service visit frequency, 3) used resource referral services, 4) used mental health services, 5) used respite care services, 6) used ethical issues counseling services, 7) advanced directive status and psychosocial service utilization, 8) used interpreter services, 9) used homemaker services, 10) used transportation services, 11) used Meals on Wheels services, 12) used complementary and alternative medicine services, 13) used pastoral care services, and 14) used volunteer services.

For variables specific to caregiver services, the dependent variables will be 1) used bereavement services, 2) used caregiver health and wellness services, 3) used spiritual care services, 4) used dealing with difficult behavior services, 5) used safety training services, 6) used suspected abuse or neglect services, and 6) used resource referral information services.

## **Characteristics of Patients Who Use Psychosocial Services**

Medical social service use and frequency. Overall, 40% of patients utilized medical social service and had an average of 2.15 visits while under hospice care. The majority of the patients who used this service had cancer, specifically either the lung, bronchial, or tracheal form of the disease (13.9%). Visit frequency was not significant. Those with no cognitive impairment utilized medical social services the most (35.8%) with an average visit frequency of 1.75 while under hospice care. Patients with four total ADL needs represented the most patients that used this service (26.3%) with 2.75 visits on average.

Hospice patients under routine home care represented 75.9% of patients that used medical social services with the highest average visit frequency of 4 visits while being a hospice patient. Patients who used medical social services had an average length of 75.5 service days with the average of 2.15 visits. Medicare patients represented 82% of those who used this service and visit frequency was not significant. Patient age and gender were not significantly related to medical social service use or visit frequency. White and Black or African American racial identities were the only significant races that related to use of medical social services. White patients used this service the most (91%) with a visit frequency of 2.75 visits. Furthermore, White non-Hispanics represented the highest amount of patients that used medical social services (86.2%). Visit frequency was not significant. Married patients accounted for 42.4% of patients who used this service with an average of 2 visits while under hospice care. Veterans represented 11.7% of patients who used this service. Visit frequency was not significant.

Results indicated that 92.1% of patients who used medical social services had a caregiver and had an average of 2.25 visits. Those with their child as the caregiver represented 30.9% of patients who used this service with a visit frequency of 2.5 visits. Patients who lived with a family member accounted for most of the patients who used this service (53.3%) with an average of 2 visits. More specifically, those who had household membership with their spouse represented 31% of those who lived with a family member and used medical social services with a visit frequency of 1.75. Patients that lived in a private home at the beginning of care accounted for 58% and had an average of 4 visits while under hospice care. At the end of care, patients that lived in a private home also represented the most of the patients that used medical social services (51.6%) and similarly had a visit frequency of 3.5 visits. (see Tables 4-8)

Table 4

Patient Medical Social Service Utilization & Visit Frequency Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	χ²	df	p	Average Visit Frequency	$\chi^2$	df	p
Diagnosis		967.912	229	.000*	N.S.	7453.241	11679	1.000
Lung, Bronchial, or Tracheal Cancer	13.9%					, , , , , , , , , , , , , , , , , , , ,		-1000
Heart Failure	7.6%							
Organic Psychotic Conditions	6.1%							
Non-Specified Chronic Airway Obstruction	6%							
Unknown Cause of Morbidity								
Nutrition or Metabolism Developmental	5.5%							
Disorders	5.4%							
Cognitive Status		121.325	6	*000		470.806	306	*000
No Cognitive Impairment	35.8%				1.75			
Occasional Reminders	16.1%				2			
Some Assistance	14.9%				2.5			
Great Deal of Assistance	16.3%				3			
Severe Cognitive Impairment	8.9%				3.5			
Patient Total ADL Needs		129.382	7	.000*		503.359	357	.000*
None None	8.9%	129.362	/	.000	2.25	303.339	331	.000
One	8.4%				1			
Two	8.3%				1.5			
Three	19.4%				1.75			
Four	26.3%				2.75			
Five	23.4%				2.75			
1 < 05			l	<u> </u>			l	<u> </u>

<sup>\*</sup> p values  $\leq .05$ 

Table 5

Patient Medical Social Service Utilization & Visit Frequency Based on Level of Care, Length of Service, & Payer

	% of Those Who Used the Service	$\chi^2$	df	p	Average Visit Frequency	$\chi^2$	df	p
Level of Care Routine Homecare Continuous Home Care General Inpatient Inpatient Respite	75.9% 3.9% 14.9% .7%	1240.573	6	.000*	4 3.5 3.5 3	1594.859	306	.000*
Length of Service	Avg. 75.5 days	1429.953	293	.000*	2.15	75869.69 7	14843	.000*
Payer Source Medicare Medicaid Tricare Department of Veteran Affairs Worker's Compensation Other Government Funding Private Insurance Long-Term Care Insurance Self-Pay No Charge for Care Undetermined Payer Source Other	82% 3.7% .3% 1.3% 0% .3% 7.6% .3% 1% .8% .2% .6%	278.418	14	.000*	N.S.	671.196	714	.873

<sup>\*</sup> p values  $\leq .05$ 

Table 6
Patient Medical Social Service Utilization & Visit Frequency Based on Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

			1		T		ı	
	% of Those Who Used the Service	$\chi^2$	df	p	Average Visit Frequency	$\chi^2$	df	p
Patient Age at Discharge	N.S.	82.246	75	.265	N.S.	3507.250	3825	1.000
Gender Male Female	N.S.	2.356	1	.125	N.S.	63.677	51	.110
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. 7.1% 91%	.649 711 .684 9.923 8.045	1 1 1 1 1	.421 .191 .408 .002* .005*	4.25 N.S. N.S. 2.5 2.75	172.289 34.545 13.210 102.498 101.776	67 67 67 67 67	.000* 1.00 1.00 .003* .004*
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	3.1% 86.2% 7% 1.9%	38.089	4	.000*	N.S.	285.310	268	.223
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	42.4% 39.6% 6.8% .8% 5.9%	79.344	6	.000*	2 2.75 2.25 1.5 1.25	353.673	306	.031*
Veteran	11.7%	24.931	3	.000*	N.S.	151.885	153	.510

<sup>\*</sup>  $\overline{p \text{ values} \le .05}$ 

Table 7

Patient Medical Social Service Utilization & Visit Frequency Based on Caregiver Status & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p	Average Visit Frequency	$\chi^2$	df	p
Caregiver	92.1%	69.833	2	.000*	2.25	130.315	102	.031
Identification of the Caregiver Spouse Child Parent Other family Member Non-Family Member	32.6% 30.9% 2% 9.3% 17.3%	113.843	6	.000*	2 2.5 .5 2.25 3	396.305	306	.000
Household Membership Alone Family	10.5% 53.3%	181.683	5	.000*	1.25 2	434.763	225	.000
Spouse or Significant Other Parent Child Other Family Members	31% 1% 17% 5%	168.095 182.963 171.076 143.255	3 3 3 3	.000* .000* .000* .000*	1.75 .25 2.5 1	352.087 327.705 360.340 306.076	153 153 153 153	.000 * .000 *
Non-Family Members Family and Non-Family	4.3% .5%				2.5 4.75			.000 * .000 *

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 8

Patient Medical Social Service Utilization & Visit Frequency Based on Patient Location at the Beginning & End of Care

	% of Those Who Used the Service	$\chi^2$	df	р	Average Visit Frequency	χ²	df	р
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	58% 19.6% 6.7% 5% 4.7%	3586.070	7	*000	4 4.25 1.75 4.25 2.5 2.25	4788.416	469	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	51.6% 22.3% 7.4% 5.2% 7.7% 1.1%	3568.037	7	.000*	3.5 4.75 2.5 4.5 3.5 3	4829.430	469	.000*

<sup>\*</sup> p values  $\leq .05$ 

Resource referral services. The majority of the patients who used this service had either the lung, bronchial, or tracheal cancer (8%). Those with no cognitive impairment utilized resource referral services the most (31.3%). Patients with four total ADL needs represented the most patients that used this service (30%). Hospice patients under routine home care represented 65.4% of patients that used resource referral services. Patient length of service was not significant. Medicare patients represented 76% of those who used this service. The average age of patients who used this service was 74. Patient gender was not significantly related to resource referral service use. Asian racial identity was the only significant racial identity representing 1.1% of patients who used this service. White non-Hispanics represented the highest amount of patients that used resource referral services (85.2%). Married patients accounted for 42.2% of patients who used this service. Veterans represented 11.9% of patients who used resource referral services.

Of patients who used resource referral services, 86.1% had a caregiver. Those with a spousal caregiver represented 32.1% of patients who used this service. Patients who lived with a family member accounted for most of the patients who used this service (59.9%). The only significant relationship between the specific family household member was if the patient lived with other family members. Patients that lived with other family members represented 10% of those who used resource referral services. Patients that lived in a private home at the beginning of care accounted for 53.3%. At the end of care, patients that lived in a private home also represented the most of the patients that used resource referral services (45.3%). (see Tables 9-13)

Table 9

Patient Utilization of Resource Referral Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1221.343	687	.000*
Lung, Bronchial, or Tracheal Cancer	8%			
Heart Failure	5.1%			
Unspecified Chronic Airway Obstruction	5.3%			
Unknown Cause of Morbidity	5.6%			
Cognitive Status		409.828	18	.000*
No Cognitive Impairment	31.3%	407.020	10	.000
Occasional Reminders	15.6%			
Some Assistance	17.1%			
Great Deal of Assistance	20.6%			
Severe Cognitive Impairment	8.4%			
Patient Total ADL Needs		514.577	21	.000*
None	12.1%	314.377	21	.000
One	6.6%			
Two	9.1%			
Three	15.8%			
Four	30%			
Five	17.9%			

<sup>\*</sup> p values  $\leq .05$ 

Table 10

Patient Utilization of Resource Referral Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		701.333	18	.000*
Routine Homecare	65.4%	701.333	10	.000
Continuous Home Care	2.7%			
General Inpatient	9.1%			
Inpatient Respite	.6%			
Length of Service	N.S.	704.437	879	1.000
Payer Source		73.091	42	.002*
Medicare	76.7%			
Medicaid	7.4%			
Tricare	.2%			
Department of Veteran Affairs	1.9%			
Worker's Compensation	0%			
Other Government Funding	.4%			
Private Insurance	6.8%			
Long-Term Care Insurance	.2%			
Self-Pay	1%			
No Charge for Care	1%			
Undetermined Payer Source	0%			
Other	1.4%			

<sup>\*</sup> p values  $\leq .05$ 

Table 11

Patient Resource Referral Service Utilization Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average age of 74	184.655	150	.020*
Gender Male Female	N.S.	.156	3	.984
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S 1.1% N.S. N.S. N.S.	7.177 20.426 2.290 2.950 1.618	3 3 3 3 3	.066 .000* .514 .399 .655
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	187.752 3.3% 85.2% 9.5% 1.4%	187.752	12	.000*
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	42.2% 35.6% 7% 1% 9.7% .8%	40.254	18	.002*
Veteran	11.9%	32.692	9	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 12

Patient Resource Referral Service Utilization Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	86.1%	414.058	6	.000*
Identification of the Caregiver		32.308	18	.020*
Spouse	32.1%	02.000		1020
Child	30%			
Parent	3.9%			
Other family Member	11.5%			
Non-Family Member	14.2%			
Household Membership		25.359	15	.045*
Alone	14.6%	23.337	13	.043
Family	59.9%			
Spouse or Significant Other	N.S.	7.753	3	.051
Parent	N.S.	7.517	3	.057
Child	N.S.	7.630	3	.054
Other Family Members	10%	10.568	3	.044*
Non-Family Members	3.9%			
Family and Non-Family	.4%			

<sup>\*</sup> p values  $\leq .05$ 

Table 13

Patient Resource Referral Service Utilization & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility	53.3% 11.7% 4.7% 2.5% 5.1%	922.022	21	.000*
Other  Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	.4%  45.3% 17.1% 5.3% 2.3% 6.8% 1%	913.969	21	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Mental health services. Overall, 1.3% of hospice patients utilized mental health services. The majority of the patients who used this service had a schizophrenic disorder (19%). Cognitive status was not significant. Patients with no ADL needs represented the most patients that used this service (35.7%). Patient level of care was not significant. Patients who used mental health services had an average length of 100 service days. Medicare patients represented 40.5% of those who used this service. Patients who used this service had the average age of 73 years old. Patient gender, racial identity, and ethnicity were not significant. Married patients accounted for 28.6% of patients who used this service. Patient veteran status was not significant. Results indicated that 73.8% of patients who used mental health services had a caregiver. Those with a spousal caregiver represented 23.8% of patients who used this service. Household membership as well as patient location at the beginning and end of care was insignificant. (see Tables 14-18)

Table 14

Patient Utilization of Mental Health Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis Schizophrenic disorders Lung, Bronchial, or Tracheal Cancer Heart Failure	19% 7.1% 7.1%	426.569	229	.000*
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	3.864	6	.695
Patient Total ADL Needs None One Two Three Four Five	35.7% 2.4% 4.8% 14.3% 14.3% 19%	24.298	7	.001*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 15

Patient Utilization of Mental Health Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care	N.S.	1.169	6	.978
Routine Homecare				
Continuous Home Care				
General Inpatient				
Inpatient Respite				
Length of Service	Average 100 days	639.575	293	.000*
Payer Source		56.392	14	.000*
Medicare	40.5%			
Medicaid	31%			
Tricare	0%			
Department of Veteran Affairs	7.1%			
Worker's Compensation	0%			
Other Government Funding	2.4%			
Private Insurance	2.4%			
Long-Term Care Insurance	0%			
Self-Pay	0%			
No Charge for Care	9.5%			
Undetermined Payer Source	0%			
Other	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 16

Patient Mental Health Service Utilization, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average 73 years old	234.926	75	.000*
Gender Male Female	N.S.	.001	1	.969
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. N.S. N.S.	1.720 .429 .124 1.036 .988	1 1 1 1	.190 .512 .724 .309 .320
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	N.S.	2.516	4	.642
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	28.6% 26.2% 9.5% 2.4% 19% 2.4%	12.733	6	.047
Veteran	N.S.	1.202	3	.753

Table 17
Patient Mental Health Service Utilization, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	73.8%	7.863	2	.020*
Identification of the Caregiver		21.562	6	.001*
Spouse	23.8%	21.632		.001
Child	19%			
Parent	9.5%			
Other family Member	9.5%			
Non-Family Member	9.5%			<u> </u>
Household Membership	N.S.	3.929	5	.560
Alone				
Family				
Spouse or Significant Other	N.S.	2.111	3	.550
Parent	N.S.	6.104	3	.107
Child	N.S.	.872	3	.832
Other Family Members	N.S.	1.319	3	.725
Non-Family Members Family and Non-Family				

<sup>\*</sup> p values  $\leq .05$ 

\* p values  $\leq .05$ 

Table 18

Patient Mental Health Service Utilization & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	6.715	7	.459
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	1.237	7	.990

<sup>\*</sup> p values  $\leq .05$ 

Respite care services. Overall, 4.6% of patients used respite services. Patient diagnosis, cognitive status, and total ADL needs were not significantly related to respite care service use. Hospice patients under routine home care represented 74.3% of patients that used respite services. Patients who used this service had an average length of 120 service days. Medicare patients represented 63.5% of those who used this service. Patient age and gender were not significantly related to respite care service use. The only significantly related racial identity to respite care use was Black or African American racial identity. Patients that identified as Black or African American represented 12.2% of patients who used this service. Patient ethnicity was not significant. Married patients accounted for 50.7% of patients who used this service and veterans represented 16.2%.

Results indicated that 96.6% of patients who used respite services had a caregiver. Patients with a spousal caregiver represented 43.2% of patients who used this service. Patients who lived with a family member accounted for most of the patients who used this service (81.1%). More specifically, those who had household membership with their spouse represented 48% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 80.4%. At the end of care, patients that lived in a private home also represented the most of the patients that used respite services (62.2%). (see Tables 19- 23)

Table 19

Patient Utilization of Respite Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis Lung, Bronchial, or Tracheal Cancer Heart Failure Unspecified Chronic Airway Obstruction Unknown Cause of Morbidity	N.S.	186.962	229	.981
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	6.834	6	.337
Patient Total ADL Needs None One Two Three Four Five	N.S.	10.419	7	.166

<sup>\*</sup> p values  $\leq .05$ 

Table 20
Patient Utilization of Respite Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		99.406	6	.000*
Routine Homecare	74.3%	77.400	O	.000
Continuous Home Care	2%			
General Inpatient	6.1%			
Inpatient Respite	5.4%			
Length of Service	Average 120 days	833.567	293	.000*
Payer Source		89.947	14	.000*
Medicare	63.5%			
Medicaid	5.1%			
Tricare	0%			
Department of Veteran Affairs	1.4%			
Worker's Compensation	0%			
Other Government Funding	.7%			
Private Insurance	8.2%			
Long-Term Care Insurance	0%			
Self-Pay	2%			
No Charge for Care	10.1%			
Undetermined Payer Source	0%			
Other	.7%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 21

Patient Respite Service Utilization, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	85.396	75	.193
Gender Male Female	N.S.	1.107	1	.293
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. 12.2% N.S.	.002 1.583 .458 4.310 1.680	1 1 1 1	.966 .208 .498 .038* .195
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	N.S.	6.863	4	.143
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	50.7% 32.4% 4.1% 2.7% 6.8% .7%	19.506	6	.003*
Veteran	16.2%	12.469	3	.006*

<sup>\*</sup> p values  $\leq .05$ 

Table 22
Patient Respite Service Utilization, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	96.6%	13.484	2	.000*
Identification of the Caregiver		25.372	6	.000*
Spouse	43.2%	23.372	O	.000
Child	30.4%			
Parent	4.7%			
Other family Member	10.1%			
Non-Family Member	8.1%			
Household Membership		43.886	5	.000*
Alone	9.5%	12.000		
Family	81.1%			
Spouse or Significant Other	48%	33.805	3	.000*
Parent	4%	24.078	3	.000*
Child	23%	26.443	3	*000
Other Family Members	8%	23.936	3	*000
Non-Family Members	3.4%			
Family and Non-Family	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 23
Patient Respite Utilization & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	χ²	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	80.4% 2% 2% 0% 2.7% 1.4%	115.882	7	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	62.2% 12.2% 9.5% 1.4% 2% 1.4%	71.110	7	.000*

<sup>\*</sup> p values  $\leq .05$ 

Ethical issues counseling. Overall, 3.9% of patients utilized ethical issues counseling. Patient diagnosis, cognitive status, and total ADL needs were insignificantly related to use of ethical issues counseling. Hospice patients under routine home care represented 83.3% of patients that used ethical issues counseling. Patients who used this service had an average length of 110 service days. Medicare patients represented 68.3% of those who used this service. Patient age and gender were not significant. Only White and Black or African American racial identity yielded significant results. White patients used this service the most (82.5%). Furthermore, White non-Hispanics represented the highest amount of patients that used ethical issues counseling. Patient marital and veteran statuses were not significant.

Caregiver status was also insignificantly related to ethical issues counseling utilization. Those with a spousal caregiver represented 38.9% of patients who used this service. Patient household membership was not significant. Patients that lived in a private home at the beginning of care accounted for 72.2%. At the end of care, patients that lived in a private home also represented the most of the patients that used medical social services (61.9%). (see Table 24- 28)

Table 24

Patient Utilization of Ethical Issues Counseling Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis Lung, Bronchial, or Tracheal Cancer Heart Failure Unspecified Chronic Airway Obstruction Unknown Cause of Morbidity	N.S.	175.356	229	.997
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	11.264	6	.081
Patient Total ADL Needs None One Two Three Four Five	N.S.	13.476	7	.061

<sup>\*</sup> p values  $\leq .05$ 

Table 25

Patient Utilization of Ethical Issues Counseling Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		75.306	6	.000*
Routine Homecare	83.3%	, , , , ,	-	
Continuous Home Care	2.4%			
General Inpatient	8.7%			
Inpatient Respite	2.4%			
Length of Service	Average 110 days	806.055	293	.000*
Payer Source		28.765	14	.011*
Medicare	68.3%			
Medicaid	9.5%			
Tricare	0%			
Department of Veteran Affairs	0%			
Worker's Compensation	0%			
Other Government Funding	0%			
Private Insurance	9.5%			
Long-Term Care Insurance	0%			
Self-Pay	2%			
No Charge for Care	2.4%			
Undetermined Payer Source	0%			
Other	2.4%			

<sup>\*</sup> p values  $\leq .05$ 

Table 26

Patient Ethical Issues Counseling Utilization, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	77.083	75	.412
Gender Male Female	N.S.	.983	1	.322
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. 15.9% 82.5%	.015 .054 .386 12.299 8.911	1 1 1 1 1	.902 .816 .534 .000* .003*
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	.8% 80.2% 15.9% 1.6%	16.288	4	.003*
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	N.S.	5.799	6	.448
Veteran	N.S.	6.280	3	.099

<sup>\*</sup> p values  $\leq .05$ 

Table 27

Patient Ethical Issues Counseling Utilization, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	5.438	2	.066
Identification of the Caregiver		13.056	6	.042*
Spouse	38.9%			
Child	34.9%			
Parent	2.4%			
Other family Member	7.1%			
Non-Family Member	10.3%			
Household Membership Alone	N.S.	2.839	5	.725
Family				
Spouse or Significant Other	N.S.	2.553	3	.466
Parent	N.S.	3.172	3	.366
Child	N.S.	4.399	3	.221
Other Family Members	N.S.	2.345	3	.504
Non-Family Members				
Family and Non-Family				

<sup>\*</sup> p values  $\leq .05$ 

Table 28

Patient Ethical Issues Counseling Utilization & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		80.614	7	.000*
Private Home	72.2%			
Nursing Home/Skilled Nursing Facility	12.7%			
Hospital	7.1%			
Residential Care Place	3.2%			
Agency Inpatient/Residential Facility	1.6%			
Other	.8%			
Location at the End of Care		80.578	7	.000*
Private Home	61.9%			
Nursing Home/Skilled Nursing Facility	18.3%			
Hospital	5.6%			
Residential Care Place	4%			
Agency Inpatient/Residential Facility	4.8%			
Other	3.2%			

<sup>\*</sup> p values  $\leq .05$ 

Advanced directive status and psychosocial service utilization. Overall, 67.6% of patients had advanced directives. The majority of the patients who had advanced directives had cancer, specifically either the lung, bronchial, or tracheal form of the disease (11.6%). Those with no cognitive impairment had advanced directives the most (31.2%). Patients with four total ADL needs represented the most patients with advanced directives (24.9%). Hospice patients under routine home care represented 65.2% of patients that with advanced directives. Patients with advanced directives had an average length of 60 service days. Medicare patients represented 77.6% of those who had advanced directives.

Patients with advanced directives had the average age of 75 years old. Patient gender was not significant. Native Hawaiian or other Pacific Islander, White, or Black or African American racial identities were the only ones significantly related to advanced directive status. White patients represented the largest racial group that had advanced directives (93.6%). Furthermore, White non-Hispanics represented the highest amount of patients that had advanced directives (88.5%). Married patients accounted for 41.9% of patients who had advanced directives and veterans represented 10.9%.

Of the patients with advanced directives, those with caregivers represented 89.5%. Those with a spousal caregiver represented 32.2% of patients with advanced directives. Patients who lived with a family member accounted for most of the patients with advanced directives (51.5%). More specifically, those who had household membership with their spouse represented 31% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 49.4%. At the

end of care, patients that lived in a private home also represented the most of the patients that had advanced directives (43.4%).

As it pertains to patient utilization of medical social service based on advanced directive status, those in possession of advanced directives represented 70%. Patients with advanced directives had an average of 3.25 visits while under hospice care. Use of resource referral and mental health services were not significantly related to advanced directive status. Patients with advanced directives represented 7.4% of patients who used respite care services. Of those who used ethical issues counseling, 6.3% had advanced directives. Use of interpreter, homemaker, transportation, and Meals on Wheels services was not significant. Patients with advanced directives represented 4.4% of those who used CAM services. Of the patients who used pastoral care services, 54.9% had advanced directives while those with advanced directives represented 25.8% of patients who used volunteer services.

Of the patients with caregivers who used bereavement services, 71% had advanced directives. Results indicated that of the patients with caregivers who used caregiver health and wellness services, 26.7% had advanced directives. Of the patients with care givers that used spiritual care services, 56% had advanced directives. Caregiver use of safety training services was not significant. Among the patients with caregivers that used suspected abuse or neglect services, 5% had advanced directives. Of those with caregivers that used resource referral information services, 22% had advanced directives. (see Tables 29- 35)

Table 29

Patient Advanced Directive Status, Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those With Advanced Directives	$\chi^2$	df	p
Diagnosis		772.035	229	.000*
Lung, Bronchial, or Tracheal Cancer	11.6%		-	
Heart Failure	6.9%			
Unspecified Chronic Airway Obstruction	5.6%			
Organic Psychotic Chronic Conditions	5.1%			
Other Forms of Chronic Ischemic Heart Disease	5.6%			
Cognitive Status		117.244	6	.000*
No Cognitive Impairment	31.2%	117.244	O	.000
Occasional Reminders	15%			
Some Assistance	15%			
Great Deal of Assistance	18.9%			
Severe Cognitive Impairment	10.7%			
Patient Total ADL Needs		80.824	7	.000*
None	9.7%			
One	8.9%			
Two	9.1%			
Three	18.6%			
Four	24.9%			
Five	20.8%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 30

Patient Advanced Directive Status, Level of Care, Length of Service, & Payer Source

	% of Those With Advanced Directives	$\chi^2$	df	p
Level of Care		790.179	6	.000
Routine Homecare	65.2%			*
Continuous Home Care	3.2%			
General Inpatient	13.9%			
Inpatient Respite	.9%			
Length of Service	Average 60 days	938.098	293	.000
Payer Source		244.391	14	.000
Medicare	77.6%			*
Medicaid	5.5%			
Tricare	.2%			
Department of Veteran Affairs	1.7%			
Worker's Compensation	.1%			
Other Government Funding	.4%			
Private Insurance	7.5%			
Long-Term Care Insurance	.2%			
Self-Pay	3%			
No Charge for Care	1.1%			
Undetermined Payer Source	.1%			
Other	.4%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 31

Patient Advanced Directive Status, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those With Advanced Directives	$\chi^2$	df	p
Patient Age at Discharge	Average Age of 75	136.332	75	.000*
Gender Male Female	N.S.	905	1	.341
Race				
American Indian or Alaskan Native	N.S.	.071	1	.790
Asian	N.S.	.945	1	.331
Native Hawaiian or other Pacific Islander	.1%	9.100	1	.003*
Black or African American	4.7%	64.483	1	*000
White	93.6%	65.982	1	.000*
Ethnicity		79.279	4	.000*
Hispanic or Latino	3.2%			
White Non-Hispanic or Latino	88.5%			
Black Non-Hispanic or Latino	4.7%			
Other Non-Hispanic or Latino	1.5%			
Marital Status		136.143	6	.000*
Married	41.9%	1001110	Ü	.000
Widowed	40.2%			
Divorced	6.7%			
Separated	.7%			
Never Married	6.1%			
Living with a Partner	.7%			
Veteran	10.9%	15.719	3	.001*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 32

Patient Advanced Directive Status, Caregiver Status, & Household Membership

	% of Those With Advanced Directives	$\chi^2$	df	p
Caregiver	89.5%	33.498	2	.000*
Identification of the Caregiver		139.387	6	.000*
Spouse	32.2%		Ü	1000
Child	30.3%			
Parent	1.4%			
Other family Member	8.5%			
Non-Family Member	17%			
Household Membership		183.118	5	.000*
Alone	13.1%	105.110	J	
Family	51.5%			
Spouse or Significant Other	31%	195.992	3	.000*
Parent	1%	236.326	3	.000*
Child	17%	180.555	3	*000
Other Family Members	5%	175.476	3	.000*
Non-Family Members				
Family and Non-Family				
, , , , , , , , , , , , , , , , , , ,	5.2%			
	.6%			

<sup>\*</sup> p values  $\leq .05$ 

Table 33

Patient Advanced Directive Status & Patient Location at the Beginning as Well as End of Care

	% of Those With Advanced Directives	$\chi^2$	df	р
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	49.4% 17.3% 6.8% 3.6% 5.8% .7%	801.055	7	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	43.4% 19.9% 6.9% 3.8% 8.6% 1%	802.955	7	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 34

Patient Utilization of Psychosocial Services Based on Advanced Directive Status

	% of Patients Had Advanced Directives	2	16	
Psychosocial Service	& Used the Service	$\chi^2$	df	p
Medical Social Services	70%	479.139	1	.000*
Medical Social Service Visit Frequency	Average 3.25 visits	568.353	51	.000*
Resource Referral Services	N.S.	.481	1	.488
Mental Health Services	N.S.	1.265	1	.261
Respite Care Services	7.4%	15.879	1	.000*
Ethical Issues Counseling	6.3%	12.180	1	.000*
Interpreter Services	N.S.	1.132	1	.287
Homemaker Services	N.S.	.319	1	.572
Transportation Services	N.S.	3.662	1	.056
Meals on Wheels Services	N.S.	1.339	1	.247
Complementary and Alternative Medicine Services	4.4%	26.911	1	.000*
Pastoral Care Services	54.9%	357.263	1	.000*
Volunteer Services	25.8%	114.858	1	.000*

<sup>\*</sup> p values  $\leq .05$ 

Table 35

Caregiver Utilization of Psychosocial Services Based on Patient Advanced Directive Status

Psychosocial Service	% of Patients With Advanced Directives Who Had A Caregiver That Used the Service	$\chi^2$	df	p
Bereavement Services	71%	623.591	3	.000*
Caregiver Health and Wellness Services	26.7%	63.191	3	.000*
Spiritual Care Services	56%	334.569	3	.000*
Dealing with Difficult Behaviors Services	17%	30.261	3	.000*
Safety Training Services	N.S.	2.266	3	.519
Suspected Abuse or Neglect Services	5%	11.680	3	.009*
Resource Referral Information Services	22%	14.891	3	.002*

<sup>\*</sup> p values  $\leq .05$ 

Interpreter services. Overall, .3% of patients utilized interpreter services. Patient diagnosis, cognitive status, and total ADL needs were not significantly related to use of interpreter services. Patient level of care and length of service were also insignificantly related to use of this service. Medicare patients represented 62.5% of those who used this service. Patient age and gender were not significantly related to interpreter service utilization. Only Asian racial identity was significantly related to use of this service. Asian represented 12.5% of patients that used this service. Hispanic or Latino patients represented the highest amount of patients that used interpreter services. Married patients accounted for 50% of patients who used this service. Patient veteran status was not significantly related to use of this service.

Patient caregiver status and identification of the caregiver were not significant.

Patients who lived with a family member accounted for most of the patients who used this service (75%). Identification of which family member the patient lived with was not significant. Patient location at the beginning and end of care was not significantly related to use of interpreter services. (see Tables 36-40)

Table 36

Patient Utilization of Interpreter Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis Lung, Bronchial, or Tracheal Cancer Heart Failure Unspecified Chronic Airway Obstruction Unknown Cause of Morbidity	N.S.	74.910	229	1.000
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	8.347	6	.214
Patient Total ADL Needs None One Two Three Four Five	N.S.	6.239	7	.512

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 37

Patient Utilization of Interpreter Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care	N.S.	1.389	6	.967
Routine Homecare				
Continuous Home Care				
General Inpatient				
Inpatient Respite				
Length of Service	N.S.	210.528	293	1.000
Payer Source		23.746	14	.049*
Medicare	62.5%			
Medicaid	0%			
Tricare	0%			
Department of Veteran Affairs	12.5%			
Worker's Compensation	0%			
Other Government Funding	0%			
Private Insurance	0%			
Long-Term Care Insurance	0%			
Self-Pay	12.5%			
No Charge for Care	0%			
Undetermined Payer Source	0%			
Other	12.5%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 38

Patient Utilization of Interpreter Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	46.576	75	.996
Gender Male Female	N.S.	3.320	1	.068
Race	N.C.	057	1	011
American Indian or Alaskan Native Asian	N.S. 12.5%	.057 10.800	1	.811 .001*
Native Hawaiian or other Pacific Islander	N.S.	.023	1	.879
Black or African American	N.S.	.674	1	.412
White	N.S.	.068	1	.795
Ethnicity		123.184	4	.000*
Hispanic or Latino	75%			
White Non-Hispanic or Latino	0%			
Black Non-Hispanic or Latino	0%			
Other Non-Hispanic or Latino	12.5%			
Marital Status		15.974	6	.014*
Married	50%			
Widowed	25%			
Divorced	12.5%			
Separated	12.5%			
Never Married	0%			
Living with a Partner	0%			
Veteran	N.S.	5.322	3	1.50

<sup>\*</sup> p values  $\leq .05$ 

Table 39

Patient Utilization of Interpreter, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	.057	2	.972
Identification of the Caregiver	N.S.	5.634	6	.465
Spouse				
Child				
Parent				
Other family Member				
Non-Family Member				
Household Membership		25.929	5	.000*
Alone	0%			
Family	75%			
Spouse or Significant Other	N.S.	1.388	3	.708
Parent	N.S.	.931	3	.818
Child	N.S.	2.907	3	.406
Other Family Members	N.S.	1.215	3	.749
Non-Family Members				
Family and Non-Family	0%			
•	12.5%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 40

Patient Utilization of Interpreter & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	1.249	7	.990
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	1.825	7	.969

<sup>\*</sup> p values  $\leq .05$ 

Homemaker services. Overall, 18.1% of patients utilized homemaker services. Patient diagnosis was not significant.ly related to use of this service. Those with no cognitive impairment utilized homemaker services the most (34.5%). Patients with four total ADL needs represented the most patients that used this service (30.1%). Hospice patients under routine home care represented 56.8% of patients that used homemaker services. Patients who used this service had an average length of 90service days.

Medicare patients represented 66% of those who used this service. Patient age and gender were not significantly related to homemaker service use. Black or African American and White racial identity were the only once significantly associated with use of homemaker services. White patients used this service the most (84.9%). Furthermore, White non-Hispanics represented the highest amount of patients that used this service (80.1%).

Patient marital and veteran statuses were not significantly related to use of this service.

Patient caregiver status was not significant. Those with their child as the caregiver represented 33.3% of patients who used this service. Patients who lived with a family member accounted for most of the patients who used this service (59.6%). More specifically, those who had household membership with their spouse represented 29% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 50.5%. At the end of care, patients that lived in a private home also represented the most of the patients that used homemaker services (42.7%). (see Tables 41- 45)

Table 41

Patient Utilization of Homemaker Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis	N.S.	235.055	229	.378
Cognitive Status		19.422	6	.004*
No Cognitive Impairment	34.5%			
Occasional Reminders	19.6%			
Some Assistance	16.7%			
Great Deal of Assistance	16.2%			
Severe Cognitive Impairment	9.4%			
Patient Total ADL Needs		32.594	7	.000*
None	9.1%			
One	3.7%			
Two	11.4%			
Three	14.6%			
Four	30.1%			
Five	22.1%			

<sup>\*</sup> p values  $\leq .05$ 

Table 42

Patient Utilization of Homemaker Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		25.268	6	.000*
Routine Homecare	56.8%	23.200	O	.000
Continuous Home Care	4.6%			
General Inpatient	6.4%			
Inpatient Respite	.7%			
Length of Service	Average 90 days	432.639	293	.000*
Payer Source		80.885	14	.000*
Medicare	66%			
Medicaid	19.4%			
Tricare	0%			
Department of Veteran Affairs	.2%			
Worker's Compensation	.5%			
Other Government Funding	2.5%			
Private Insurance	4.8%			
Long-Term Care Insurance	0%			
Self-Pay	3.9%			
No Charge for Care	.9%			
Undetermined Payer Source	0%			
Other	.9%			

<sup>\*</sup> p values  $\leq .05$ 

Table 43

Patient Utilization of Homemaker Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	65.524	75	.775
Gender Male Female	N.S.	.918	1	.338
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. 13.7% 84.9%	.003 .519 1.555 26.563 17.021	1 1 1 1 1	.958 .471 .212 .000* .000*
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	3.2% 80.1% 13.7% 1.4%	31.520	4	.000*
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	N.S.	10.957	6	.090
Veteran	N.S.	5.291	3	.152

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 44

Patient Utilization of Homemaker Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	5.382	2	.068
Identification of the Caregiver		23.148	6	.001*
Spouse	29.5%			
Child	33.3%			
Parent	3.9%			
Other family Member	9.6%			
Non-Family Member	8.2%			
Household Membership		29.156	5	.000*
Alone	21.5%	_,,,_,	-	
Family	59.6%			
Spouse or Significant Other	29%	26.091	3	.000*
Parent	3%	22.031	3	.000*
Child	23%	33.343	3	*000
Other Family Members	6%	21.693	3	*000
Non-Family Members				
Family and Non-Family	4.6%			
•	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 45

Patient Utilization of Homemaker Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	50.5% 8% 2.3% 2.6% 5.3% .2%	39.025	7	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	42.7% 10.7% 4.6% 3% 7.3% .5%	20.688	7	.004*

<sup>\*</sup> p values  $\leq .05$ 

Transportation services. Overall, 2.2% of patients utilized transportation services. The majority of the patients who used this service had cancer, specifically either the lung, bronchial, or tracheal form of the disease (13%). Patient cognitive status, total ADL, and level of care needs were not significantly related to use of this service. Patients who used this service had an average length of 110 service days. Medicare patients represented 51.9% of those who used this service. Patient age, gender, race, and ethnicity were not significantly related to transportation service use. Married patients accounted for 22.2% of patients who used this service. Patient veteran status was not significant.

Patient caregiver status and identification of the caregiver were not significantly related to use of transportation services. Patients who lived with a family member as well as those who lived alone both accounted for most of the patients who used this service (70% combined). Identification of which family member the patient lived with was not significant. Location at the beginning as well as location at the end of care was not significantly related to use of transportation services.(see Table 46-50)

Table 46

Patient Utilization of Transportation Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

13% 7.4% 5.6% N.S.	276.766 4.113	6	.661
7.4% 5.6%	4.113	6	.661
5.6%	4.113	6	.661
	4.113	6	.661
N.S.	4.113	6	.661
N.S.	7.100	7	.419
	N.S.	N.S. 7.100	N.S. 7.100 7

<sup>\*</sup> p values  $\leq .05$ 

Table 47

Patient Utilization of Transportation Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care	N.S.	5.940	6	.430
Routine Homecare	14.5.	3.740	U	.430
Continuous Home Care				
General Inpatient				
Inpatient Respite				
imputiont respite				
Length of Service	Average 110 days	480.352	293	.000*
Payer Source		61.116	14	.000*
Medicare	51.9%			
Medicaid	9.3%			
Tricare	0%			
Department of Veteran Affairs	0%			
Worker's Compensation	1.9%			
Other Government Funding	1.9%			
Private Insurance	9.3%			
Long-Term Care Insurance	0%			
Self-Pay	14.8%			
No Charge for Care	1.9%			
Undetermined Payer Source	0%			
Other	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 48

Patient Utilization of Transportation Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	65.399	75	.779
Gender Male Female	N.S.	1.427	1	.232
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. N.S. N.S.	1.041 .413 .161 1.262 .350	1 1 1 1 1	.308 .520 .689 .261
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	N.S.	3.716	4	.446
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	22.2% 41.6% 16.7% 0% 5.6% 0%	18.602	6	.005*
Veteran	N.S.	4.261	3	.235

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 49

Patient Utilization of Transportation Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	1.331	2	.514
Identification of the Caregiver	N.S.	10.966	6	.089
Spouse				
Child				
Parent				
Other family Member				
Non-Family Member				
Household Membership		18.061	5	.003*
Alone	35.2%	10.001		1000
Family	35.2%			
Spouse or Significant Other	N.S.	5.719	3	.126
Parent	N.S.	.383	3	.944
Child	N.S.	.763	3	.858
Other Family Members	N.S.	2.640	3	.450
Non-Family Members				
Family and Non-Family	9.3%			
•	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 50

Patient Utilization of Transportation Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	6.644	7	.467
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	8.406	7	.298

<sup>\*</sup> p values  $\leq .05$ 

*Meals on Wheels services*. Overall, 1.6% of patients utilized Meals on Wheels services. Patient diagnosis, cognitive status, total ADL needs, and level of care were not significantly related to use of this service. Patients who used Meals on Wheels services had an average length of 175 service days. Patient payer source, age, gender, race, ethnicity, marriage status, and veteran status were not significantly related to use of Meals on Wheels services.

Patient caregiver statuses as well as the identification of the caregiver were not significantly related to use of this service. Patients who lived with a family member accounted for most of the patients who used this service (46.2%). Household memberships with a spouse or other family member were the only ones to yield significant results. Those who had household membership with their spouse represented 20% of those who lived with a family member. Patient location at the beginning and end of care was not significant. (see Tables 51- 55)

Table 51

Patient Utilization of Meals on Wheels Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis Lung, Bronchial, or Tracheal Cancer Heart Failure Unspecified Chronic Airway Obstruction Unknown Cause of Morbidity	N.S.	77.446	229	1.000
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	8.345	6	.214
Patient Total ADL Needs None One Two Three Four Five	N.S.	8.345	6	.214

<sup>\*</sup> p values  $\leq .05$ 

Table 52

Patient Utilization of Meals on Wheels Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care Routine Homecare Continuous Home Care General Inpatient Inpatient Respite	N.S.	6.226	6	.398
Length of Service	Average 175 days	905.332	293	.000*
Payer Source Medicare Medicaid Tricare Department of Veteran Affairs Worker's Compensation Other Government Funding Private Insurance Long-Term Care Insurance Self-Pay No Charge for Care Undetermined Payer Source Other	N.S.	3.011	14	.999

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 53

Patient Utilization of Meals on Wheels Service, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	γ²	df	p
Patient Age at Discharge	N.S.	47.634	75	.994
Gender Male Female	N.S.	.849	1	.357
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. N.S. N.S.	.281 .398 .115 .350 .011	1 1 1 1 1	.596 .528 .734 .554 .918
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	N.S.	3.836	4	.429
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	N.S.	8.428	6	.208
Veteran	N.S.	3.107	3	.375

<sup>\*</sup> p values  $\leq .05$ 

Table 54

Patient Utilization of Meals on Wheels Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	1.420	2	.492
Identification of the Caregiver	N.S.	7.795	6	.254
Spouse Child				
Parent				
Other family Member				
Non-Family Member				
Household Membership		19.285	5	.002*
Alone	41%	19.203		.002
Family	46.2%			
Spouse or Significant Other	20%	10.777	3	.013*
Parent	N.S.	.180	3	.180
Child	N.S.	6.343	3	.096
Other Family Members	6%	9.076	3	.028*
Non-Family Members	45.1%			
Family and Non-Family	0%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 55

Patient Utilization of Meals on Wheels Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	р
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	10.440	7	.165
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	N.S.	4.931	7	.668

<sup>\*</sup>  $p \text{ values} \leq .05$ 

Complementary and alternative medicine services. Overall, 3.2% of patients utilized CAM services. Patient diagnosis, cognitive status, and total ADL needs were not significant. Hospice patients under routine home care represented 68.8% of patients that used CAM services. Patients who used these services had an average length of 90 service days. Patient payer source was not significantly related to use of CAM services. Patients who used this service had an average age of 75 years old. Patient gender was not significantly related to use of CAM services. Patient race, ethnicity, marital status, and veteran status was not significantly related to use of these services.

Patients who lived with a family member accounted for most of the patients who used this service (46.8%). More specifically, those who had household membership with their spouse represented 31% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 49.4% of patients who used CAM services. At the end of care, patients that lived in a private home also represented the most of the patients that used CAM services (40.3%). (see Tables 56-60)

Table 56

Patient Utilization of CAM Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	р
Diagnosis Lung, Bronchial, or Tracheal Cancer Heart Failure Unspecified Chronic Airway Obstruction Unknown Cause of Morbidity	N.S.	189.831	229	.972
Cognitive Status No Cognitive Impairment Occasional Reminders Some Assistance Great Deal of Assistance Severe Cognitive Impairment	N.S.	6.935	6	.327
Patient Total ADL Needs None One Two Three Four Five	N.S.		7	.794

<sup>\*</sup> p values  $\leq .05$ 

Table 57

Patient Utilization of CAM Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		74.843	6	.000*
Routine Homecare	68.8%			
Continuous Home Care	14.3%			
General Inpatient	14.3%			
Inpatient Respite	0%			
Length of Service	Average 90 days	573.329	293	.000*
Payer Source	N.S.	8.191	14	.879
Medicare				
Medicaid				
Tricare				
Department of Veteran Affairs				
Worker's Compensation				
Other Government Funding				
Private Insurance				
Long-Term Care Insurance				
Self-Pay				
No Charge for Care				
Undetermined Payer Source				
Other				

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 58

Patient Utilization of CAM Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average 75 years old	117.855	75	.001*
Gender Male Female	N.S.	1.492	1	.222
Race American Indian or Alaskan Native Asian Native Hawaiian or other Pacific Islander Black or African American White	N.S. N.S. N.S. N.S. N.S.	.403 .075 .231 2.948 1.890	1 1 1 1	.526 .784 .631 .086 .169
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	N.S.	5.849	4	.211
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	N.S.	5.586	6	.471
Veteran	N.S.	7.617	3	.055

<sup>\*</sup> p values  $\leq .05$ 

Table 59

Patient Utilization of CAM Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	N.S.	1.319	2	.517
Identification of the Caregiver Spouse	N.S.	12.21	6	.051
Child Parent				
Other family Member Non-Family Member				
Household Membership		14.416	5	.013*
Alone Family	10.4% 46.8%			
Spouse or Significant Other	31%	15.552	3	.001*
Parent	1%	14.613	3	.002*
Child Other Family Members	11% 6%	13.745 13.879	3 3	.003* .003*
Non-Family Members	3.9%			
Family and Non-Family	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 60

Patient Utilization of CAM Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		50.252	7	.000*
Private Home	49.4%			
Nursing Home/Skilled Nursing Facility	24.7%			
Hospital	5.2%			
Residential Care Place	6.5%			
Agency Inpatient/Residential Facility	9.1%			
Other	2.6%			
Location at the End of Care		50.449	7	.000*
Private Home	40.3%			
Nursing Home/Skilled Nursing Facility	29.9%			
Hospital	5.2%			
Residential Care Place	6.5%			
Agency Inpatient/Residential Facility	13%			
Other	2.6%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Pastoral care services. Overall, 41.8% of patients utilized pastoral care services. The majority of the patients who used this service had cancer, specifically either the lung, bronchial, or tracheal form of the disease (12.8%). Those with no cognitive impairment utilized this service the most (26.4%). Patients with four total ADL needs represented the most patients that used this service (28.6%). Hospice patients under routine home care represented 76.9% of patients that used pastoral services. Patients who used this service had an average length of 90 service days. Medicare patients represented 80.8% of those who used this service.

Patient age and gender were not significantly related to pastoral care service. White and Black or African American racial identities were the only races significantly related to use of this service. White patients used this service the most (92.7%). Furthermore, White non-Hispanics represented the highest amount of patients that used pastoral care services (87.4%). Married patients accounted for 43.1% of patients who used this service and veterans represented 11.9%.

Results indicated that 90.5% of patients who used pastoral services had a caregiver. Those with a spousal caregiver represented 32.3% of patients who used this service. Patients who lived with a family member accounted for most of the patients who used this service (49.7%). More specifically, those who had household membership with their spouse represented 29% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 58%. At the end of care, patients that lived in a private home also represented the most of the patients that used pastoral care services (50.4%). (see Tables 61-65)

Table 61

Patient Utilization of Pastoral Care Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		732.402	229	.000*
Lung, Bronchial, or Tracheal Cancer	12.8%			
Heart Failure	7.4%			
Unspecified Chronic Airway Obstruction	6.1%			
Unknown Cause of Morbidity	5.8%			
Nutrition, Metabolism, or Developmental Disorders	5.4%			
Other Cerebral Degenerations	5%			
Cognitive Status		114.273	6	.000*
No Cognitive Impairment	26.4%	111.273	O	.000
Occasional Reminders	14.8%			
Some Assistance	16.6%			
Great Deal of Assistance	20.4%			
Severe Cognitive Impairment	13.2%			
Patient Total ADL Needs		88.135	7	.000*
None	8.9%	00.133	,	.000
One	8.3%			
Two	8%			
Three	19.8%			
Four	28.6%			
Five	21.7%			

<sup>\*</sup> p values  $\leq .05$ 

Table 62

Patient Utilization of Pastoral Care Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		949.962	6	.000*
Routine Homecare	76.9%			
Continuous Home Care	3.8%			
General Inpatient	17.8%			
Inpatient Respite	1.1%			
Length of Service	Average 90 days	1222.663	293	.000*
Payer Source		154.955	14	.000*
Medicare	80.8%			
Medicaid	4%			
Tricare	.1%			
Department of Veteran Affairs	1.8%			
Worker's Compensation	0%			
Other Government Funding	.6%			
Private Insurance	7.6%			
Long-Term Care Insurance	.2%			
Self-Pay	.8%			
No Charge for Care	1.5%			
Undetermined Payer Source	.1%			
Other	.6%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 63

Patient Utilization of Pastoral Care Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	75.911	75	.449
Gender	N.S.	1.606	1	.205
Male				
Female				
Race				
American Indian or Alaskan Native	N.S.	.003	1	.957
Asian	N.S.	1.596	1	.207
Native Hawaiian or other Pacific Islander	N.S.	2.188	1	.139
Black or African American	5.7%	9.728	1	.002*
White	92.7%	11.775	1	.001*
Ethnicity		18.369	4	.001*
Hispanic or Latino	3.8%	10.00	·	1001
White Non-Hispanic or Latino	87.4%			
Black Non-Hispanic or Latino	5.6%			
Other Non-Hispanic or Latino	1.5%			
Marital Status		62.028	6	.000*
Married	43.1%	02.020	O	.000
Widowed	39.7%			
Divorced	6.6%			
Separated	1%			
Never Married	5.2%			
Living with a Partner	.7%			
Veteran	11.9%	21.432	3	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 64

Patient Utilization of Pastoral Care Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	90.5%	20.004	2	.000*
Identification of the Caregiver Spouse Child Parent Other family Member Non-Family Member	32.3% 30.4% 1.6% 9.1% 17%	51.962	6	.000*
Household Membership Alone Family	9.1% 49.7%	234.598	5	.000*
Spouse or Significant Other Parent Child Other Family Members	29% 1% 16% 4%	224.346 229.466 228.763 210.738	3 3 3 3	.000* .000* .000* .000*
Non-Family Members Family and Non-Family	4.2% .4%			

<sup>\*</sup> p values  $\leq .05$ 

Table 65

Patient Utilization of Pastoral Care Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		960.670	7	.000*
Private Home	58%			
Nursing Home/Skilled Nursing Facility	21.3%			
Hospital	7.1%			
Residential Care Place	4.3%			
Agency Inpatient/Residential Facility	8.3%			
Other	.8%			
Location at the End of Care		965.212	7	.000*
Private Home	50.4			
Nursing Home/Skilled Nursing Facility	24%			
Hospital	7.5%			
Residential Care Place	4.5%			
Agency Inpatient/Residential Facility	12.3%			
Other	1.2%			

<sup>\*</sup> p values  $\leq .05$ 

Volunteer services. Overall, 19.8% of patients utilized volunteer services. The majority of the patients who used this service had cancer, specifically either the lung, bronchial, or tracheal form of the disease (11.5%). Those with no cognitive impairment utilized volunteer services the most (29%). Patients with four total ADL needs represented the most patients that used this service (31.5%). Hospice patients under routine home care represented 77.2% of patients that used volunteer services. Patients who used this service had an average length of 110 service days. Medicare patients represented 81.4% of those who used this service. The average age of patients who used this service was 75 years old. Patient gender was not significant. Only White and Asian racial identities were significantly related to volunteer service utilization. White patients used this service the most (93.7%). Furthermore, White non-Hispanics represented the highest amount of patients that used volunteer services (91%). Married patients accounted for 43.2% of patients who used this service. Veterans represented 13.2% of patients who used this service.

Results indicated that 91.4% of patients who used volunteer services had a caregiver. Those with a spousal caregiver represented 33.4% of patients who used this service. Patients who lived alone accounted for most of the patients who used this service (55.3%). Patients that lived in a private home at the beginning of care accounted for 63.3% and those that lived in a private home also represented the most of the patients that used volunteer services (63.3%). (see Tables 66-70)

Table 66

Patient Utilization of Volunteer Services Based on Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		335.592	229	.000*
Lung, Bronchial, or Tracheal Cancer	11.5%			
Heart Failure	7.3%			
Unspecified Chronic Airway Obstruction	6.7%			
Other organic psychotic chronic conditions	6.5%			
Unknown Cause of Morbidity	6.5%			
Nutrition, Metabolism, or Development Disorders	6.1%			
Cognitive Status		23.751	6	.001*
No Cognitive Impairment	29%	23.731	O O	.001
Occasional Reminders	16.1%			
Some Assistance	16.9%			
Great Deal of Assistance	21.3%			
Severe Cognitive Impairment	10.2%			
Patient Total ADL Needs		37.329	7	.000*
None	13.2%	31.32)	,	.000
One	7.2%			
Two	8.4%			
Three	15.7%			
Four	31.5%			
Five	23.6%			

<sup>\*</sup> p values  $\leq .05$ 

Table 67

Patient Utilization of Volunteer Services Based on Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		319.212	6	.000*
Routine Homecare	77.2%	319.212	U	.000
Continuous Home Care	2.1%			
General Inpatient	14.8%			
Inpatient Respite	4.4%			
пірацені Кезріс	7.770			
Length of Service	Average 110 days	880.974	293	.000*
Payer Source		108.449	14	.000*
Medicare	81.4%			
Medicaid	3.1%			
Tricare	.2%			
Department of Veteran Affairs	1.5%			
Worker's Compensation	0%			
Other Government Funding	.4%			
Private Insurance	4.8%			
Long-Term Care Insurance	0%			
Self-Pay	.6%			
No Charge for Care	4.2%			
Undetermined Payer Source	.2%			
Other	.4%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 68

Patient Utilization of Volunteer Services, Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average age 75	107.964	75	.008*
Gender	N.S.	.117	1	.732
Male				
Female				
Race				
American Indian or Alaskan Native	N.S.	.701	1	.402
Asian	0%	5.998	1	.014*
Native Hawaiian or other Pacific Islander	N.S.	.136	1	.712
Black or African American	N.S.	3.712	1	.054
White	93.7%	8.345	1	.004*
Ethnicity		26.045	4	.000
Hispanic or Latino	2.3%			
White Non-Hispanic or Latino	91%			
Black Non-Hispanic or Latino	5.6%			
Other Non-Hispanic or Latino	.6%			
Marital Status		34.211	6	.000*
Married	43.2%	0211	Ü	
Widowed	40.9%			
Divorced	7.1%			
Separated	4.4%			
Never Married	.6%			
Living with a Partner	1.3%			
Veteran	13.2%	19.119	3	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 69

Patient Utilization of Volunteer Services, Caregiver Status, & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Caregiver	91.4%	11.007	2	.004*
Identification of the Caregiver		21.853	6	.001*
Spouse Spouse	33.4%	21.033		.001
Child	29.6%			
Parent	1.7%			
Other family Member	9%			
Non-Family Member	17.5%			
Household Membership		43.588	5	.000*
Household Membership Alone	55.3%	43.366	3	.000
Family	9.4%			
Spouse or Significant Other	32%	36.565	3	.000*
Parent	1%	40.375	3	.000*
Child	16%	31.290	3	*000
Other Family Members	6%	28.858	3	.000*
Non-Family Members	4%			
Family and Non-Family	.2%			

<sup>\*</sup> p values  $\leq .05$ 

Table 70

Patient Utilization of Volunteer Services & Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		333.150	7	.000*
Private Home	63.3%			
Nursing Home/Skilled Nursing Facility	21.9%			
Hospital	3.5%			
Residential Care Place	3.3%			
Agency Inpatient/Residential Facility	6.3%			
Other	.6%			
Location at the End of Care		324.880	7	.000*
Private Home	50.7%			
Nursing Home/Skilled Nursing Facility	26.5%			
Hospital	6.3%			
Residential Care Place	3.5%			
Agency Inpatient/Residential Facility	11.1%			
Other	.8%			

<sup>\*</sup> p values  $\leq .05$ 

## **Caregiver Support Service Utilization**

Bereavement services. Overall, 53.5% of patients had caregivers that utilized bereavement services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (14.7%). Those with no cognitive impairment had a caregiver that used the service the most (27.2%). Patients with four total ADL needs represented the most patients with caregivers that used this service (24.7%). Hospice patients under routine home care represented 76.2% of patients with caregivers that used this service.

Patients with caregivers that who used bereavement services had an average length of 60 service days. Medicare patients represented 79.9% of those with caregivers that used this service. Patient age was not significant. Females accounted for the most patients with caregivers who used this service. Asian, Black or African American, and White racial identity were significantly related to caregiver use of bereavement services. White patients used this service the most (93.7%). Furthermore, White non-Hispanics represented the highest amount of patients with caregivers that used bereavement services (89.1%). Married patients accounted for 44.9% of patients with caregivers that used this service. Veterans represented 6% of patients with a caregiver that used this service.

Patients with spousal caregivers represented 44% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (52.7%). More specifically, those who had household membership with their spouse represented 32% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 60.2% and

those that lived in a private home at the end of care also represented the most patients that had a caregiver that used bereavement services (60.2%). (see Tables 71-75)

Table 71

Caregiver Utilization of Bereavement Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		2064.221	687	.000*
Lung, Bronchial, or Tracheal Cancer	14.7%			
Heart Failure	8%			
Unspecified Chronic Airway Obstruction	6%			
Other Organic Psychotic Conditions	5.3%			
Cognitive Status		606.262	18	.000*
No Cognitive Impairment	27.2%	000.202	10	.000
Occasional Reminders	19.5%			
Some Assistance	14.7%			
Great Deal of Assistance	11.5%			
Severe Cognitive Impairment	5.4%			
Patient Total ADL Needs		699.906	21	.000*
None	8.1%	077.700	21	.000
One	11.4%			
Two	8.6%			
Three	20%			
Four	24.7%			
Five	22.3%			

<sup>\*</sup> p values  $\leq .05$ 

Table 72

Caregiver Utilization of Bereavement Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		2131.216	18	.000*
Routine Homecare	76.2%	2131.210	10	.000
Continuous Home Care	4.4%			
	17.4%			
General Inpatient	1.1%			
Inpatient Respite	1.1 %			
Length of Service	Average 60 days	1983.957	879	.000*
Payer Source		294.577	42	.000*
Medicare	79.9%			
Medicaid	3.7%			
Tricare	.4%			
Department of Veteran Affairs	1.5%			
Worker's Compensation	0%			
Other Government Funding	.3%			
Private Insurance	8.2%			
Long-Term Care Insurance	.2%			
Self-Pay	1%			
No Charge for Care	2.2%			
Undetermined Payer Source	.2%			
Other	.6%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 73

Caregiver Utilization of Bereavement Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	177.112	105	.065
Gender Male Female	46.6% 53.4%	13.232	3	.004*
Race				
American Indian or Alaskan Native Asian	N.S. 1%	7.252 18.610	3	.064 .000*
Native Hawaiian or other Pacific Islander Black or African American White	N.S. 4.6% 93.7%	1.914 39.137 37.441	3 3 3	.591 .000* .000*
Ethnicity Hispanic or Latino White Non-Hispanic or Latino Black Non-Hispanic or Latino Other Non-Hispanic or Latino	3.2% 89.1% 4.6% 1.5%	228.383	12	.000*
Marital Status Married Widowed Divorced Separated Never Married Living with a Partner	44.9% 38.2% 6.8% .5% 5.3%	143.139	18	.000*
Veteran	6%	37.026	9	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 74

Caregiver Utilization of Bereavement Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Identification of the Caregiver		351.106	18	.000*
Spouse Spouse	44%	331.100	10	.000
Child	27%			
Parent	6%			
Other family Member	9%			
Non-Family Member	12%			
Household Membership		378.502	15	.000*
Alone	7.4%	370.302	13	.000
Family	52.7%			
Spouse or Significant Other	32%	338.617	9	.000*
Parent	1%	311.337	9	.000*
Child	16%	308.275	9	*000
Other Family Members	5%	286.318	9	.000*
Non-Family Members	4.5%			
Family and Non-Family	.6%			

<sup>\*</sup> p values  $\leq .05$ 

Table 75

Caregiver Utilization of Bereavement Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	60.2% 19.6% 8% 3.5% 7.2% .8%	2347.238	21	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	53% 22.2% 8.4% 3.6% 10.9% 1.3%	2346.525	21	.000*

<sup>\*</sup> p values  $\leq .05$ 

Caregiver health and wellness services. Overall, 22.2% of patients had caregivers that utilized health and wellness services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (10.5%). Those with no cognitive impairment had a caregiver that used the service the most (29.7%). Patients with four total ADL needs represented the most patients with caregivers that used this service (27.9%). Hospice patients under routine home care represented 71.4% of patients with caregivers that used this service.

Patient length of service was not significant. Medicare patients represented 75.1% of those with caregivers that used this service. The average age of patients that had a caregiver that used this service. Patient gender was not significant. Asian and American Indian or Alaskan Native racial identity were significantly related to caregiver use of health and wellness services. Asian patients used this service the most (.7%). White non-Hispanics represented the highest amount of patients with caregivers that used health and wellness services (87.9%). Married patients accounted for 46.9% of patients with caregiver that used this service. Veterans represented 7.9% of patients with a caregiver that used this service.

Patients with spousal caregivers represented 37% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (62.6%). More specifically, those who had household membership with their spouse represented 37% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 58.3% and

those that lived in a private home at the end of care also represented the most patients that had a caregiver that used health and wellness services (52.1%). (see Tables 76-80)

Table 76

Caregiver Utilization of Health & Wellness Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1276.062	687	.000*
Lung, Bronchial, or Tracheal Cancer	10.5%			
Heart Failure	7.1%			
Unspecified Chronic Airway Obstruction	6%			
Other Psychotic Conditions	5.6%			
Late Effects of Cerebrovascular Diseases	5%			
Cognitive Status		411.537	18	.000*
No Cognitive Impairment	29.7%	111.007	10	.000
Occasional Reminders	16.6%			
Some Assistance	18.1%			
Great Deal of Assistance	18.1%			
Severe Cognitive Impairment	9%			
Patient Total ADL Needs		524.931	21	.000*
None	9.2%			
One	8%			
Two	8.6%			
Three	19.6%			
Four	27.9%			
Five	21.1%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 77

Caregiver Utilization of Health & Wellness Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		787.030	18	.000*
Routine Homecare	71.4%	787.030	10	.000
Continuous Home Care	3%			
General Inpatient	10.5%			
Inpatient Respite	.6%			
T				
Length of Service	N.S.	745.192	879	1.000
Payer Source		87.484	42	.000*
Medicare	75.1%	07.404	72	.000
Medicaid	1.9%			
Tricare	0%			
Department of Veteran Affairs	1.7%			
Worker's Compensation	0%			
Other Government Funding	.4%			
Private Insurance	7.7%			
Long-Term Care Insurance	.2%			
Self-Pay	3.2%			
No Charge for Care	3.2%			
Undetermined Payer Source	0%			
Other	.4%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 78

Caregiver Utilization of Health & Wellness Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average Age 75	191.347	150	.013*
Gender	N.S.	5.263	3	.154
Male				
Female				
Race				
American Indian or Alaskan Native	0%	11.007	3	.012*
Asian	.7%	18.873	3	.000*
Native Hawaiian or other Pacific Islander	N.S.	2.105	3	.551
Black or African American	N.S.	1.556	3	.669
White	N.S.	4.665	3	.198
Ethnicity		191.350	12	.000*
Hispanic or Latino	4.1%			
White Non-Hispanic or Latino	87.9%			
Black Non-Hispanic or Latino	6.7%			
Other Non-Hispanic or Latino	.7%			
Marital Status		56.652	18	.000*
Married	46.9%			
Widowed	33.6%			
Divorced	7.3%			
Separated	.7%			
Never Married	7.3%			
Living with a Partner	.9%			
Veteran	7.9%	35.370	9	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 79

Caregiver Utilization of Health & Wellness Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Identification of the Caregiver		132.321	18	.000*
Spouse	37%	132.321	10	.000
Child	30%			
Parent	4%			
Other family Member	9%			
Non-Family Member	15%			
Household Membership		44.269	15	.000*
Alone	10.2%	11.209	15	.000
Family	62.6%			
Spouse or Significant Other	37%	29.551	9	.001*
Parent	2%	21.995	9	.009*
Child	18%	21.095	9	.012*
Other Family Members	6%	17.208	9	.046*
Non-Family Members	4.5%			
Family and Non-Family	.4%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 80

Caregiver Utilization of Health & Wellness Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	58.3% 12% 6.5% 3% 4.7% .9%	1012.654	21	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	52.1% 15.1% 5.8% 3.6% 6.9% 1.9%	1015.998	21	.000*

<sup>\*</sup> p values  $\leq .05$ 

*Spiritual care services*. Overall, 43.3% of patients had caregivers that utilized spiritual care services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (13.3%). Those with no cognitive impairment had a caregiver that used the service the most (26.4%). Patients with four total ADL needs represented the most patients with caregivers that used this service (26%).

Hospice patients under routine home care represented 78.1% of patients with caregivers that used this service. Patients with caregivers that who used spiritual care services had an average length of 80 service days. Medicare patients represented 79.8% of those with caregivers that used this service. Patients with a caregiver that used spiritual care services had the average age of 75 years. Patient gender was not significant. Asian and White racial identity were significantly related to caregiver use of spiritual services. White patients used this service the most (92.2%). Furthermore, White non-Hispanics represented the highest amount of patients with caregivers that used this service (88.1%). Married patients accounted for 43.6% of patients with caregivers that used this service. Veterans represented 7.3% of patients with a caregiver that used this service.

Patients with spousal caregivers represented 33% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (60.9%). More specifically, those who had household membership with their spouse represented 31% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 60.9% and

those that lived in a private home at the end of care also represented the most patients that had a caregiver that used spiritual services (53.8%). (see Tables 81-85)

Table 81

Caregiver Utilization of Spiritual Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1729.646	687	.000*
Lung, Bronchial, or Tracheal Cancer	13.3%			
Heart Failure	7.9%			
Unspecified Chronic Airway Obstruction	6.3%			
Other Psychotic Chronic Conditions	5.8%			
Nutrition, Metabolism, or Development Disorders	5.3%			
Cognitive Status		499.313	18	.000*
No Cognitive Impairment	26.4%			
Occasional Reminders	15.1%			
Some Assistance	17.3%			
Great Deal of Assistance	19.1%			
Severe Cognitive Impairment	12.1%			
Patient Total ADL Needs		602.953	21	.000*
None	8.4%			
One	9.6%			
Two	8.2%			
Three	19.2%			
Four	26%			
Five	23.4%			

<sup>\*</sup>  $p \text{ values} \leq .05$ 

Table 82

Caregiver Utilization of Spiritual Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Com-		1572 255	10	000*
Level of Care	70.10/	1573.355	18	*000
Routine Homecare	78.1%			
Continuous Home Care	3.2%			
General Inpatient	15.9%			
Inpatient Respite	1.1%			
Length of Service	Average 80 days	1444.529	879	.000*
Payer Source		202.466	42	.000*
Medicare	79.8%			
Medicaid	3.5%			
Tricare	.2%			
Department of Veteran Affairs	1.3%			
Worker's Compensation	0%			
Other Government Funding	.3%			
Private Insurance	8.2%			
Long-Term Care Insurance	.7%			
Self-Pay	1.1%			
No Charge for Care	1.8%			
Undetermined Payer Source	.1%			
Other	.7%			

<sup>\*</sup> p values  $\leq .05$ 

Table 83

Caregiver Utilization of Spiritual Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average Age 75	203.787	150	.002*
Gender	N.S.	.870	3	.833
Male				
Female				
Race				
American Indian or Alaskan Native	N.S.	6.600	3	.086
Asian	.7%	20.153	3	*000
Native Hawaiian or other Pacific Islander	N.S.	.066	3	.996
Black or African American	N.S.	7.560	3	.056
White	92.2%	8.968	3	.030*
Ethnicity		198.141	12	.000*
Hispanic or Latino	3.1%	1,0,1,1		
White Non-Hispanic or Latino	88.1%			
Black Non-Hispanic or Latino	6%			
Other Non-Hispanic or Latino	1.5%			
Marital Status		98.600	18	.000*
Married	43.6%	70.000	10	
Widowed	39.2%			
Divorced	6.6%			
Separated	.9%			
Never Married	5.7%			
Living with a Partner	.8%			
Veteran	7.3%	25.817	9	.002*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 84

Caregiver Utilization of Spiritual Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Identification of the Cornaiver		225.246	18	.000*
Identification of the Caregiver	33%	223.240	10	.000
Spouse				
Child	32%			
Parent	2%			
Other family Member	7%			
Non-Family Member	16%			
Household Membership		196.088	15	.000*
Alone	8.2%	170.000	10	.000
Family	60.9%			
Spouse or Significant Other	31%	158.835	9	.000*
Parent	1%	163.110	9	.000*
Child	17%	163.670	9	.000*
Other Family Members	5%	137.444	9	.000*
Non-Family Members	4.3%			
Family and Non-Family	.3%			

<sup>\*</sup> p values  $\leq .05$ 

Table 85

Caregiver Utilization of Spiritual Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	60.9% 18.7% 7.8% 3.5% 6.8% .8%	1783.698	21	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	53.8% 21.3% 7.9% 3.5% 10.4% 1.3%	1784.961	21	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Dealing with difficult behavior services. Overall, 14.4% of patients had caregivers that utilized dealing with difficult behaviors services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (12.1%). Those with no cognitive impairment had a caregiver that used the service the most (25.3%). Patients with four total ADL needs represented the most patients with caregivers that used this service (29.3%). Hospice patients under routine home care represented 72.4% of patients with caregivers that used this service.

Patient length of service, payer source, age, and gender were not significantly related to use of dealing with difficult behaviors services. Asian racial identity was significantly related to caregiver use of this service. Asian patients accounted for .3% of patients with caregivers that used dealing with difficult behaviors services. White non-Hispanics represented the highest amount of patients with caregivers that used this service (85.9%). Married patients accounted for 41.1% of patients with caregivers that used this service. Patient veteran status was not significant.

Patient with spousal caregivers or their child as the caregiver represented 66% of patients who used this service combined. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (63.2%). More specifically, those who had household membership with their spouse represented 33% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 57.8% and those that lived in a private home at the end of care also represented the most patients that had a caregiver that used dealing with difficult behavior services (51.1%). (see Tables 86-90)

Table 86

Caregiver Utilization of Dealing with Difficult Behaviors Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	χ²	df	p
Diagnosis		1235.225	687	.000*
Lung, Bronchial, or Tracheal Cancer	12.1%			
Heart Failure	8%			
Unspecified Chronic Airway Obstruction	6.3%			
Other Organic Psychotic Chronic Conditions	6%			
Nutrition, Metabolism, or Developmental Disorders	5.5%			
Unknown Cause of Morbidity	5.5%			
Cognitive Status		448.075	18	.000*
No Cognitive Impairment	25.3%	1.101076		
Occasional Reminders	13.5%			
Some Assistance	22.1%			
Great Deal of Assistance	22.1%			
Severe Cognitive Impairment	12.9%			
Patient Total ADL Needs		546.557	21	.000*
None	10.1%	340.337	21	.000
One	3.7%			
Two	6.9%			
Three	15.2%			
Four	29.3%			
Five	29%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 87

Caregiver Utilization of Dealing with Difficult Behaviors Services Based on Patient Level of Care, Length of Service, & Payer Source

1			
% of Those Who Used the Service	$\chi^2$	df	p
	728.203	18	.000*
72.4%	, 20.200	10	.000
.3%			
N.S.	815.263	879	.939
N.S.	53.309	42	.113
	72.4% 2.3% 9.2% .3% N.S.	728.203 728.203 728.203 728.203 9.2% 9.2% .3% N.S. 815.263	72.4% 2.3% 9.2% .3% N.S. 815.263 879

<sup>\*</sup> p values  $\leq .05$ 

Table 88

Caregiver Utilization of Dealing with Difficult Behaviors Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	N.S.	174.062	150	.087
Gender	N.S.	1.103	3	.776
Male				
Female				
Race				
American Indian or Alaskan Native	N.S.	7.447	3	.059
Asian	.3%	20.433	3	.000*
Native Hawaiian or other Pacific Islander	N.S.	1.270	3	.736
Black or African American	N.S.	1.240	3	.743
White	N.S.	.879	3	.879
Ethnicity		185.002	4	.000*
Hispanic or Latino	3.7%			
White Non-Hispanic or Latino	85.9%			
Black Non-Hispanic or Latino	8.9			
Other Non-Hispanic or Latino	.9%			
Marital Status		40.647	18	.002*
Married	41.1%		-	
Widowed	35.6%			
Divorced	9.8%			
Separated	.9%			
Never Married	8.6%			
Living with a Partner	.6%			
Veteran	N.S.	13.712	9	.133

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 89

Caregiver Utilization of Dealing with Difficult Behaviors Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Hand'f' and an af the Commission		115 527	10	000*
Identification of the Caregiver	220/	115.537	18	*000
Spouse	33%			
Child	33%			
Parent	4%			
Other family Member	8%			
Non-Family Member	15%			
Household Membership		37.311	5	.001*
Alone	10.9%	0,1011		.001
Family	63.2%			
Spouse or Significant Other	33%	17.882	9	.037*
Parent	5%	18.456	9	.030*
Child	21%	28.428	9	.001*
Other Family Members	6%	18.432	9	.030*
Non-Family Members	4.3%			
Family and Non-Family	1.1%			

<sup>\*</sup> p values  $\leq .05$ 

Table 90

Caregiver Utilization of Dealing with Difficult Behaviors Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		950.920	21	.000*
Private Home	57.8%			
Nursing Home/Skilled Nursing Facility	11.2%			
Hospital	5.7%			
Residential Care Place	4.9%			
Agency Inpatient/Residential Facility	4%			
Other	.9%			
Location at the End of Care		947.510	21	.000*
Private Home	51.1%			
Nursing Home/Skilled Nursing Facility	16.4%			
Hospital	4.6%			
Residential Care Place	6.3%			
Agency Inpatient/Residential Facility	6.9%			
Other	1.1%			

<sup>\*</sup>  $p \text{ values} \leq .0$ 

Safety training services. Overall, 50.4% of patients had caregivers that utilized safety training services. The majority of the patients had a diagnosis of lung, bronchial, or tracheal cancer (11.3%). Those with no cognitive impairment had a caregiver that used the service the most (34.6%). Patients with four total ADL needs represented the most patients with caregivers that used this service (27.7%). Hospice patients under routine home care represented 60.5% of patients with caregivers that used this service. Patient length of service was not significant. Medicare patients represented 74.2% of those with caregivers that used this service. The average age of a patient with a caregiver who used this service was 75 years old.

Patient gender was not significant. Asian, Black or African American, and White racial identity were significantly related to caregiver use of safety training services. White patients used this service the most (88.4%). Furthermore, White non-Hispanics represented the highest amount of patients with caregivers that used safety training services (82.7%). Married patients accounted for 43% of patients with caregivers that used this service. Veterans represented 9.9% of patients with a caregiver that used this service.

Patient with spousal caregivers represented 37% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (68%). More specifically, those who had household membership with their spouse represented 37% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 52.5% and

those that lived in a private home at the end of care also represented the most patients that had a caregiver that used safety training services (47.1%). (see Tables 91- 95)

Table 91

Caregiver Utilization of Safety Training Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1294.263	687	.000*
Lung, Bronchial, or Tracheal Cancer	11.3%			
Heart Failure	6.4%			
Unspecified Chronic Airway Obstruction	6.1%			
Cognitive Status		420.887	18	.000*
No Cognitive Impairment	34.6%			
Occasional Reminders	18.3%			
Some Assistance	16.2%			
Great Deal of Assistance	16.2%			
Severe Cognitive Impairment	8.2%			
Patient Total ADL Needs		576.466	21	.000*
None	9.5%			
One	5.3%			
Two	9.6%			
Three	19.8%			
Four	27.7%			
Five	22%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 92

Caregiver Utilization of Safety Training Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		750.796	18	.000*
Routine Homecare	60.5%	750.770	10	.000
Continuous Home Care	2.1%			
General Inpatient	6.6%			
Inpatient Respite	.6%			
Length of Service	N.S.	596.777	879	1.000
Payer Source		100.736	42	.000*
Medicare	74.2%			
Medicaid	9.3%			
Tricare	.3%			
Department of Veteran Affairs	.7%			
Worker's Compensation	.2%			
Other Government Funding	1%			
Private Insurance	8.5%			
Long-Term Care Insurance	.1%			
Self-Pay	1.4%			
No Charge for Care	.7%			
Undetermined Payer Source	.2%			
Other	.7%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 93

Caregiver Utilization of Safety Training Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average Age 75	200.856	150	.004*
Gender	N.S.	.973	3	.808
Male				
Female				
Race				
American Indian or Alaskan Native	N.S.	7.430	3	.059
Asian	.8%	19.043	3	*000
Native Hawaiian or other Pacific Islander	N.S.	1.264	3	.738
Black or African American	9.4%	10.252	3	.017*
White	88.4%	10.277	3	.016*
Ethnicity		189.319	12	.000*
Hispanic or Latino	3.5%	10).51)	12	.000
White Non-Hispanic or Latino	82.7%			
Black Non-Hispanic or Latino	9.3%			
Other Non-Hispanic or Latino	2.1%			
Marital Status		55.470	18	.000*
Married	43%	22.170	10	.000
Widowed	35%			
Divorced	7.5%			
Separated	.8%			
Never Married	9.2%			
Living with a Partner	.9%			
Veteran	9.9%	17.517	9	.041*

<sup>\*</sup> p values  $\leq .05$ 

Table 94

Caregiver Utilization of Safety Training Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Identification of the Conscient		397.488	18	.000*
Identification of the Caregiver	270/	397.488	18	.000
Spouse	37%			
Child	32%			
Parent	0%			
Other family Member	10%			
Non-Family Member	12%			
Household Membership		181.569	15	.000*
Alone	13%	101.00	10	
Family	68%			
Spouse or Significant Other	37%	106.379	9	.000*
Parent	21%	96.990	9	*000
Child	4%	127.681	9	.000*
Other Family Members	8%	102.659	9	.000*
Non-Family Members	3.8%			
Family and Non-Family	.7%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 95

Caregiver Utilization of Safety Training Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		1051.655	21	.000*
Private Home	52.5%			
Nursing Home/Skilled Nursing Facility	8.4%			
Hospital	2.7%			
Residential Care Place	2.1%			
Agency Inpatient/Residential Facility	3.5%			
Other	.7%			
Location at the End of Care		1031.936	21	.000*
Private Home	47.1%			
Nursing Home/Skilled Nursing Facility	10.3%			
Hospital	4.5%			
Residential Care Place	2.1%			
Agency Inpatient/Residential Facility	4.8%			
Other	.9%			

<sup>\*</sup> p values  $\leq .05$ 

Suspected abuse or neglect services. Overall, 6.1% of patients had caregivers that utilized suspected abuse or neglect services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (8.8%). Those with no cognitive impairment had a caregiver that used the service the most (29.7%). Patients with two or five total ADL needs represented the most patients with caregivers that used this service (80% combined). Hospice patients under routine home care represented 43.4% of patients with caregivers that used this service.

Length of service was not significantly associated with use of this service. Medicare patients represented 62.2% of those with caregivers that used this service. Patient age was not significant. Females accounted for the most patients with caregivers who used this service. Asian racial identity was significantly related to caregiver use of suspected abuse or neglect services. Asian patients represented 1.4% of those who had caregivers that used this service. White non-Hispanics represented the highest amount of patients with caregivers that used bereavement services (80.4%). Married patients accounted for 33.1% of patients with caregivers that used this service. Patient veteran status was not significant.

Patients with their child as the caregiver represented 31% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (67%). More specifically, those who had household membership with their spouse represented 27% of those who lived with a family member. Patients that lived in a private home at the beginning of care accounted for 39.9% and

those that lived in a private home at the end of care also represented the most patients that had a caregiver that used bereavement services (31.8%). (see Tables 96-100)

Table 96

Caregiver Utilization of Suspected Abuse or Neglect Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1322.075	687	.000*
Lung, Bronchial, or Tracheal Cancer	8.8%			
Heart Failure	7.4%			
Unspecified Chronic Airway Obstruction	5.4%			
Cognitive Status		415.571	18	.000*
No Cognitive Impairment	29.7%			
Occasional Reminders	10.8%			
Some Assistance	18.9%			
Great Deal of Assistance	18.2%			
Severe Cognitive Impairment	16.9%			
Patient Total ADL Needs		510.429	21	.000*
None	10.8%			
One	4.7%			
Two	40%			
Three	0%			
Four	0%			
Five	40%			

<sup>\*</sup>  $p \text{ values} \leq .05$ 

Table 97

Caregiver Utilization of Suspected Abuse or Neglect Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Com		C40 501	18	000*
Level of Care	42.40/	649.501	18	*000
Routine Homecare	43.4%			
Continuous Home Care	1.4%			
General Inpatient	10.8%			
Inpatient Respite	.7%			
Length of Service	N.S.	540.417	879	1.000
Payer Source		69.072	42	.005*
Medicare	62.2%			
Medicaid	21.6%			
Tricare	0%			
Department of Veteran Affairs	2.7%			
Worker's Compensation	.7%			
Other Government Funding	.7%			
Private Insurance	7.4%			
Long-Term Care Insurance	0%			
Self-Pay	.7%			
No Charge for Care	.7%			
Undetermined Payer Source	0%			
Other	0%			

<sup>\*</sup> p values  $\leq .05$ 

Table 98

Caregiver Utilization of Suspected Abuse or Neglect Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average Age 75	185.230	150	.027*
Gender	N.S.	1.144	3	.766
Male	1	111.	C	.,
Female				
Race				
American Indian or Alaskan Native	N.S.	6.600	3	.086
Asian	1.4%	18.798	3	.000*
Native Hawaiian or other Pacific Islander	N.S.	.532	3	.912
Black or African American	N.S.	3.551	3	.314
White	N.S.	3.225	3	.358
Ethnicity		180.940	12	.000*
Hispanic or Latino	4.1%	100.510	12	.000
White Non-Hispanic or Latino	80.4%			
Black Non-Hispanic or Latino	11.5%			
Other Non-Hispanic or Latino	2%			
Marital Status		62,195	18	.000*
Married	33.1%	02.173	10	.000
Widowed	30.4%			
Divorced	10.8%			
Separated	2%			
Never Married	20.3%			
Living with a Partner	.7%			
Veteran	N.S.	10.684	9	.298

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 99

Caregiver Utilization of Suspected Abuse or Neglect Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Identification of the Countries		100.077	10	000*
Identification of the Caregiver	250/	109.077	18	*000
Spouse	27%			
Child	31%			
Parent	8%			
Other family Member	9%			
Non-Family Member	15%			
Household Membership		85.201	15	.000*
Alone	11%			
Family	67%			
Spouse or Significant Other	27%	28.913	9	.001*
Parent	14%	55.550	9	*000
Child	19%	26.014	9	.002*
Other Family Members	12%	29.517	9	.001*
Non-Family Members	7%			
Family and Non-Family	.1%			

<sup>\*</sup> p values  $\leq .05$ 

Table 100

Caregiver Utilization of Suspected Abuse or Neglect Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	39.9% 5.4% 3.4% 2.7% 5.4% 0%	874.143	21	.000*
Location at the End of Care Private Home Nursing Home/Skilled Nursing Facility Hospital Residential Care Place Agency Inpatient/Residential Facility Other	31.8% 10.1% 4.1% 2.7% 8.1% 0%	870.463	21	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Resource referral information services. Overall, 20.1% of patients had caregivers that utilized resource referral information services. The majority of the patients had cancer diagnosis, specifically either the lung, bronchial, or tracheal form of the disease (8%). Those with no cognitive impairment had a caregiver that used the service the most (27.2%). Patients with four total ADL needs represented the most patients with caregivers that used this service (30%). Hospice patients under routine home care represented 65.4% of patients with caregivers that used this service.

Patient length of service was not significant. Medicare patients represented 76.7% of those with caregivers that used this service. The average age of patients that had a caregiver who used this service was 75 years old. Patient gender was not significantly associated with use of this service. Asian racial identity were significantly related to caregiver use of resource referral information services. Asian patients accounted for .4% of patients who had a caregiver that used this service. White non-Hispanics represented the highest amount of patients with caregivers that used resource referral information services (85.2%). Married patients accounted for 42.2% of patients with caregivers that used this service. Veterans represented 8.7% of patients with a caregiver that used this service.

Patient with spousal caregivers represented 34% of patients who used this service. Patients who lived with a family member accounted for most of the patients with caregivers that used this service (63%). More specifically, those who had household membership with their spouse represented 33% of those who lived with a family member.

Patients that lived in a private home at the beginning of care accounted for 53.3% and those that lived in a private home at the end of care also represented the most patients that had a caregiver that used bereavement services (45.3%). (see Tables 101-105)

Table 101

Caregiver Utilization of Resource Referral Information Services Based on Patient Primary Diagnosis, Cognitive Status, & Total ADL Needs

	% of Those Who Used the Service	$\chi^2$	df	p
Diagnosis		1221.343	687	.000*
Lung, Bronchial, or Tracheal Cancer	8%			
Heart Failure	5.1%			
Unspecified Chronic Airway Obstruction	5.3%			
Unknown Cause of Morbidity	5.6%			
Nutrition, Metabolism, or Developmental Disorder	5.3%			
Cognitive Status		409.828	18	.000*
No Cognitive Impairment	31.3%			
Occasional Reminders	15.6%			
Some Assistance	17.1%			
Great Deal of Assistance	20.6%			
Severe Cognitive Impairment	8.4%			
Patient Total ADL Needs		514.577	21	.000*
None	12.1%			
One	6.6%			
Two	9.1%			
Three	15.8%			
Four	30%			
Five	17.9%			

<sup>\*</sup>  $\overline{p}$  values  $\leq .05$ 

Table 102

Caregiver Utilization of Resource Referral Information Services Based on Patient Level of Care, Length of Service, & Payer Source

	% of Those Who Used the Service	$\chi^2$	df	p
Level of Care		701 222	18	.000*
Routine Homecare	65.40/	701.333	18	.000**
Continuous Home Care	65.4% 2.7%			
	9.1%			
General Inpatient				
Inpatient Respite	.6%			
Length of Service	N.S.	704.437	879	1.000
Payer Source		73.091	42	.002*
Medicare	76.7%			
Medicaid	7.4%			
Tricare	.2%			
Department of Veteran Affairs	1.9%			
Worker's Compensation	0%			
Other Government Funding	.4%			
Private Insurance	6.8%			
Long-Term Care Insurance	.2%			
Self-Pay	1%			
No Charge for Care	1%			
Undetermined Payer Source	0%			
Other	1.4%			

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 103

Caregiver Utilization of Resource Referral Information Services Based on Patient Age at Discharge, Gender, Race, Ethnicity, Marital Status, & Veteran Status

	% of Those Who Used the Service	$\chi^2$	df	p
Patient Age at Discharge	Average Age 75	184.65	150	.029
Gender	N.S.	.156	3	.984
Male Female				
Race				
American Indian or Alaskan Native	N.S.	7.177	3	.066
Asian	.4%	20.426	3	.000*
Native Hawaiian or other Pacific Islander	N.S.	2.290	3	.514
Black or African American	N.S.	2.950	3	.399
White	N.S.	1.618	3	.655
Ethnicity		187.752	12	.000*
Hispanic or Latino	3.3%			
White Non-Hispanic or Latino	85.2%			
Black Non-Hispanic or Latino	9.5%			
Other Non-Hispanic or Latino	1.4%			
Marital Status		40.254	18	.002*
Married	42.2%		_	
Widowed	35.6%			
Divorced	7%			
Separated	1%			
Never Married	9.7%			
Living with a Partner	.8%			
Veteran	8.7%	32.692	9	.000*

<sup>\*</sup>  $p \text{ values} \le .05$ 

Table 104

Caregiver Utilization of Resource Referral Information Services Based on Patient Caregiver Identification & Household Membership

	% of Those Who Used the Service	$\chi^2$	df	p
Idea('f'est'ested A. Consissed		112.060	10	000*
Identification of the Caregiver	240/	113.060	18	*000
Spouse	34%			
Child	29%			
Parent	4%			
Other family Member	11%			
Non-Family Member	15%			
Household Membership		87.306	15	.000*
Alone	13%	07.500	10	.000
Family	63%			
1 anniy	0370			
Spouse or Significant Other	33%	16.925	9	.050*
Parent	3%	16.963	9	.049*
Child	17%	18.576	9	.029*
Other Family Members	9%	21.150	9	.012*
Non-Family Members	5%			
Family and Non-Family	.4%			

<sup>\*</sup> p values  $\leq .05$ 

Table 105

Caregiver Utilization of Resource Referral Information Services Based on Patient Location at the Beginning as Well as End of Care

	% of Those Who Used the Service	$\chi^2$	df	p
Location at the Beginning of Care		922.022	21	.000*
Private Home	53.3%			
Nursing Home/Skilled Nursing Facility	11.7%			
Hospital	4.7%			
Residential Care Place	2.5%			
Agency Inpatient/Residential Facility	5.1%			
Other	.4%			
Location at the End of Care		913.969	21	.000*
Private Home	45.3%			
Nursing Home/Skilled Nursing Facility	17.1%			
Hospital	5.3%			
Residential Care Place	2.3%			
Agency Inpatient/Residential Facility	6.8%			
Other	1%			

<sup>\*</sup> p values  $\leq .05$ 

### **Conclusions**

## Psychosocial service availability

Contrary to the first hypothesis of this study, for profit hospice agencies tend to have more availability of medical social services than hospice agencies with different ownership status (i.e. either not-for-profit or government owned) regardless if the agency is a part of a chain or agency size. Additionally, hospice agency ownership status does not significantly predict whether or not the following psychosocial services are made available to patients and families when agency chain status and size are controlled: grief or bereavement, resource referral, mental health support, respite, advanced directive support (i.e. assessment of whether that patient has advanced directives, provision of advanced directive information, provision of advanced directive forms, educating the patient about advanced directives, only providing advanced directive information when asked, and having restrictions on implementing advanced directives), as well as ethical counseling.

## Psychosocial service utilization

Based on the results of the analyses, patients at for profit hospice agencies tend to utilize medical social services less than hospice agencies with another ownership status (i.e. not-for-profit or government owned) regardless if the agency is a part of a chain or patient total ADL needs. Additionally, hospice families/friends tend to utilize bereavement services less frequently at for profit agencies than those at hospice agencies with another ownership status when agency chain status and patient ADLs are taken in to account. Contrary to hypothesis number two, hospice agency ownership status did not significantly predict whether or not the following psychosocial services were utilized by patients and families once agency chain status and patient ADLs are controlled: resource referral, mental health support, respite, as well as ethical counseling.

# Characteristics of consumers that utilized psychosocial services

Overall, patient and caregiver utilization rates of psychosocial services were low with the exception of medical social services, bereavement services, spiritual care services, & safety training services. The majority of individuals that used these services were married, White, non-Hispanic, 74-75 year old cancer patients with no cognitive impairment. Most were Medicare recipients with advanced directives in place and had 4 ADL needs. Routine home care patients with an average care continuum of about 2-2 ½ months accounted for most of those who used these services.

The majority of these patients lived in a private residence with family members and had spousal caregivers. The hypothesis that underserved (e.g. racial and ethnic minorities), Medicaid recipients would utilize psychosocial services more than others was not supported. Patients that had higher need diagnoses as well as ADL needs however did have higher utilization rates than others.

### **CHAPTER V: DISCUSSION**

Information has been sparse on the hospice psychosocial support offered through the American hospice system. To date, much of the research on hospice care in the U.S. has been focused on the physical aspect of the care model and not on the mental, social, spiritual, economic, as well as environmental factors that can also impact terminally ill patients and loved ones.

Previous studies have indicated that variation can be observed in the care that hospice patients receive which has generated concern about the commercialization of care where patients may be vulnerable to not receiving optimal care (Aldridge et al., 2014; Ata et al., 2013; Carlson et al., 2004; Gandhi, 2012; Sack, 2007; "The Debate in Hospice Care", 2008; Wachterman et al., 2011). This study aimed to focus on the specific psychosocial support that is offered through the American hospice care system as well as the utilization rates and demographics of the patients and families that are serviced under this form of health care. This is because the previous studies on hospice care in the U.S. have not comprehensively discussed the psychosocial components involved with this form of health care.

It was hypothesized that due to the influx of for profit hospices in this country that may have a model of care that is primarily focused on business opposed to patient care goals, for profit hospices would be least likely to provide adequate amounts of psychosocial services to patients when agency size and chain status were controlled. It was also hypothesized that the patients under the care of for profit hospices would be least likely to utilize psychosocial services. The results of this study show that ownership status was only a significant predictor of medical social service availability where for

profit agencies were more likely to have this service available. Conversely, patients at not for profit and government owned agencies were more likely to utilize medical social services as well as bereavement services.

A variety of hospice psychosocial services were made available via all hospice providers sampled in the parent study. However, patient and caregiver utilization rates of these services were low with the exception of medical social services, bereavement services, spiritual care services, & safety training services. The majority of individuals that used these services were married, White, non-Hispanic, 74-75 year old cancer patients with no cognitive impairment. Most were Medicare recipients with advanced directives in place and had 4 ADL needs. Routine home care patients with an average care continuum of about 2-2 ½ months accounted for most of those who used these services. The majority of these patients lived in a private residence with family members and had spousal caregivers.

These results suggest that the psychosocial services that were available had an overall low utilization rate despite availability. Across hospice auspices, significant differences in medical social service availability as well as bereavement, spiritual, safety training, and medical social service utilization were observed when patient total ALD needs, agency size, and chain status were controlled. Medical social service during care and bereavement post care were the only medical social work services that significantly varied in availability and utilization. Though medical social services were more readily available at for profit hospices, they were less likely to be utilized at these agencies. Further detail into this phenomenon will be explored below.

Further, psychosocial services are disproportionately underutilized by racial and ethnic minorities. These results highlight the disparity that exists between racial groups that are admitted under hospice care. Literature supports these findings suggesting that racial and ethnic minorities utilize hospice care services less and have higher disenrollment rates because of the preference of more aggressive care options such as those received in an e emergency care unit (Cohen, 2008; Fisherman et al., 2009; Unroe, 2012). In addition to variations in practical and theoretical worldviews, the disparities that are evident within the larger health care system, discrimination, and maltreatment that ethnic and racial minorities experience in this country has facilitated large scale mistrust among this subpopulation (Mazanec, Daly, & Townsend, 2010).

These preferences in turn make a patient ineligible to receive hospice care congruently with invasive treatments based on Medicare enrollment requirements (CMS, 2013). Some argue that by forcing a patient and/or their family to select either hospice care or aggressive treatments has the potential to exacerbate these disparities because of the ethnic, racial, and cultural preference variations that exist within the terminally ill population (Fisherman et al., 2009). Social workers can engage in community involvement by becoming and/or collaborating with the hospice field educators in order to garnish a greater understanding of the needs of terminally ill minorities.

Terminally ill patients do have the option of enrolling into palliative care programs which have been developed to allow for certain pain relieving treatments and can be initiated at the onset of terminally decline opposed to waiting until the end stage where there is a life expectancy 6 months or less (U. S. National Library of Medicine, 2016). There have not been a significant amount of generalizable studies on the

utilization of the palliative care model by minorities. The few published studies indicate that minority hospice enrollment rates are higher when patients receive palliative care first which lends to greater satisfaction with the hospice care model, increased documentation of treatment goals, along with an increased likelihood of death at home (Bell, Kuriya, & Fischberg, 2011; Ciemins et al., 2006; Holley et al., 2009; Zaide et al., 2012). Social work researchers can examine this aspect further with more generalizable studies to determine if increased minority community education and access to palliative care programs as an early intervention model can assuage the disparities seen in the enrollment and continued utilization of hospice services.

## **Theoretical Implications**

The Life-Span development theory reinforces that the aging population needs care that is multidimensional due to the complexities of problems that can be experienced as people advance in age (Hoyer, 2002). At the end of life, these complexities have the risk of being heightened due to physical decline that ensues with a terminal illness in addition to the psychosocial factors that can be affected (e.g. emotional stability, familial dynamics, ethical concerns, and resource needs).

The Peaceful End of Life Theory suggested that by focusing on all aspects of pain that can occur at the end of life, the terminally ill can therefore feel holistically cared for and die in a more peaceful state (Ruland & Moore, 1998). The interdisciplinary focused hospice model of care addresses these multifaceted care needs by having medical physician s, nurses, social workers, chaplains, and volunteers available. Making such a wide variety of specialists available can facilitate ease in the dying process more so than if end of life issues were to be address independently of one another.

This notion that there is not only a consumer need for physical pain support but also psychosocial support can be evidenced by an average of about 50% utilization rate of bereavement, spiritual care, and safety training services at the time of the NHHC survey. However, the alarming lack of psychosocial service utilization across hospice auspices may yield further investigation into what psychosocial needs are present and how they may are addressed. Further, it lends deeper concern as to whether or not patients are receiving the end of life care they require in order to experience a peaceful death. For example, 60% of hospice patients and families in the parent study were not utilizing the available medical social services which can address issues ranging from mental health to resource referral. This may either indicate that such issues are not as prevalent as once assumed or it is possible that hospice consumers are having these issues addressed by other forms of intervention.

A recent retrograde study on the care hospice patients received in the last few days of life revealed that patient visits by the entire hospice staff varied depending on location of service, day of the death, and patient race (Teno, Plotzke, Christian, & Gonzalo, 2016). Patients who died on Sundays, lived in a skilled nursing facility, and were Black received the least amount of care ((Teno, Plotzke, Christian, & Gonzalo, 2016). These alarming results further highlight the concern of the quality of care being provided across hospice auspices. They may be explained by things such as professional burn-out, low staff availability, or limited regulation of visit requirement as in the case with social workers not having visit mandates beyond the initial assessment. At any rate, in order to have a "good death" the support experienced during the continuum of care should not be reduced, especially at the last stages of life...

The results of this study indicate that patients and families at government owned or not-for-profit hospices are four times more likely to utilize medical social services and three times more likely to use bereavement services than those under for profit care. This may indicate that the form of care that is available at for profit hospices has a significant impact on consumer utilization of medical social services and bereavement services.

These results may reinforce the Contract Failure theory that stipulates an increase in not-for-profit service utilization can result when quantity and/or quality of services are restricted (Hansmann, 1980).

At the time of the NHHC survey, there was no restriction in the quantity of psychosocial services being provided. In fact, medical social services where more available at for profit hospices than other providers. Moreover, for profit hospices were eight times more likely to have medical social services available than not-for-profit or government owned hospices when agency size and chain status were controlled. However, because of the significant difference shown between the auspices and service utilization, there may be a presence of quality variation.

These results may also be a reflection of the resource scarcity that many hospices face if they have to repay the government due to the excessive funds that are generated from care for patients that have longer lengths of service (over 180 days). Motivation to maximize profits and reduce expenditures may persuade agencies to provide fewer services seen as non-essential despite their availability as stipulated by the traditional microeconomic theory (Hosmer, 1984; Nicholson & Snyder, 2008). Therefore despite that fact that many psychosocial services may be listed as available under agency care, the services may not be actively provided to conserve costs. Further identification and

assessment of quality measures based on consumer views are highly needed to draw definitive conclusions on care model variations and their impact on hospice consumer service utilization.

Despite previous arguments, for-profit hospice agencies may not be as profit-driven as previous studies suggest. Despite the evidence of the overall limited utilization of psychosocial services available, many of which are not mandated by the Hospice Medicare Benefit, for profit hospices still made these services available during the time frame of the parent study. If for profit hospices were exclusively profit driven, then the focus on conservation of cost would limit and/or remove the availability of psychosocial services that remain under-utilized.

A more recent examination into human evolution and leadership motivation suggests a more interdisciplinary approach. Pluralistic motivations that take into consideration both the self-enhancement (self-interest) as well as the self-transcendent (altruistic) allow for businesses to accommodate both consumer as well as organizational needs as much as possible (Grant & Patil, 2012; Murtaza, 2011). Hospice business models may not vary as widely as hypothesized and it is possible that all hospice types are operating under a more pluralistic model of care and not exclusively myopic leadership typologies of business orientation or altruism. What about the non-profit – again you just focus on the for profit

### Implications for Social Work Research, Policy, Education and Practice

The results of this study can aid in the building of foundational understanding of what psychosocial services are provided in the U.S. and can help researchers further develop, implement, and evaluate psychosocial interventions that are tailored specifically

to hospice patients. Currently, there are few psychosocial interventions that have been developed and tested specifically for the hospice population and none are specific to underserved hospice populations (Allen et al., 2008; Carter, 2006; Csikai et al., 2013); Drossel et al., 2011; Gordon, 2013; Keefe et al., 2005; Kruse, et al., 2013; McMillan et al., 2006; McMillan et al., 2007; Moody, 2004; Northouse et al., 2007; Northouse et al., 2013; Ott & Lueger, 2002, & Steinhauser et al., 2009).

Interestingly, the majority of these interventions have been developed, tested, and implemented by nurses. Though hospice care is an interdisciplinary model of care where all practice and research professions can collaborate, there needs to be further development and evaluation of hospice social work interventions due to the focus on psychosocial constructs. To date, there have only been five published empirical studies on hospice psychosocial intervention outcomes, three of which were on the Attitude, Define, Alternatives, Predict, and Tryout (ADPAT) Problem-Solving Intervention (PSI) (Alcide & Potocky, 2015; Dimiris et al., 2010; Dimiris et al., 2012; Washington et al., 2012). This intervention has shown to have significant practical effects when implemented, but actual dissemination and rigorous practice of the model in the field have yet to be evaluated (Alcide & Potocky, 2015).

It is important to note that limitations do exist when conducting psychosocial intervention studies with the hospice population. Due to the impending death of the patient, social workers may only see a patient for a short time, making implementation of standardized modalities such as mental health interventions difficult if not impossible to implement (Reese, 2013; Reese et al., 2011). In addition, the social workers that are

providing care may have objections to the rigor and/or modality of available interventions (such as administering an extensive battery questionnaire) (Reese, 2013).

Concern with how certain intervention models can affect patient and practitioner rapport also exists especially when it comes to the counseling aspect of the social worker role (Reese, 2013). It is an accepted practice that professionals such as nurses and physicians are engaging in the measurement of patient ailments during the visit.

However, this primary focus on measurement may not be something that patients and families expect from social workers as the listening aspect of engagement is highlighted when dealing with counseling professionals. If social workers were to begin to focus on manualized interventions that necessitate more focus on assessment and measures opposed to rapport building and engagement, further decline in utilization in medical social services can ensue (Reese, 2013).

This highlights the need for more intervention developments that are specifically tailored to the unique needs of the hospice patient and caregiver population in order to address these limitations. Though the developers of the SWAT assessment tool have been working towards tailoring this measurement tool to eliminate such complications in the rapport between hospice consumers and social workers, other interventions can also be developed. It may be beneficial to have social work researchers investigate how hospice consumers view the rapport between themselves and the social workers, Researchers can inquire how consumer psychosocial needs can be measured without decline in rapport. This can further help guide practitioners in providing care that has empirical and/or theoretical basis in addition to considering consumer perspectives. This

may encourage higher utilization of these services by consumers if positive outcomes can be observed that are based on their perspective.

Further investment into educational and practical training on hospice end-of-life care and available intervention models need to ensue. Currently, hospice social work practitioners are unable to concisely indicate the practice models that they use with patients and it may be a reflection on the limited education in hospice and end of life care provided by social work programs and possible lack of proper guidance in the professional dictation of hospice social work practice (Reese, 2013).

Since the field of hospice is interdisciplinary in nature, social worker students and practitioners interested in hospice care need to be educated on the proper manner in which to chart patient assessments, narratives, and measurable outcomes so that other disciplines will be able to seamlessly understand and communicate regarding the care of their respective patients. This may also improve consumer utilization of psychosocial services overall as team collaboration on patient care improves.

Literature suggests that unlike other fields such as medicine and nursing, social workers receive end-of-life education that is insufficiently based in research and theoretical concepts (Christ & Sormanti, 2000). This is not only a call to action for social work education reform, but also enhancement in proper leadership social workers receive to properly serve terminally ill patients. Social workers feel as though they lack the proper guidance and training which facilitates lack of preparation to work in this field (Christ & Sormanti, 2000). Perhaps the lack of proper education and training may be evident in practice and cause a decline in the utilization of medical social services that can be provided by medical social workers.

Recently, some post-secondary educational institutions have begun to provide certification in palliative and end of life care. The oldest of these programs was developed by the school of social work at Smith College. The program provides participants a condensed program over the course of two weekends with a focus on topics such as on theory, bereavement, ethical and legal issues, and leadership (Smith College of Social Work, 2016). The California State University also provides certification in hospice and palliative care (California State University, 2016). However, the programs at Smith College as well as The California State University require the participants to be actively in the field two years post-MSW.

The National Association of Social Workers also provides hospice social workers basic as well as advanced certification in hospice and palliative care (NASW, 2016). However, these certifications do not provide training in hospice and palliative care. Social workers seeking certification only need to provide evidence of education, years of experience, continuing education credits, state licensure (as applicable) and references in order to be approved as certified hospice and palliative social workers (CHP-SW or ACHP-SW) (NASW, 2016).

Other continuing education options exist for practicing hospice social workers such as those that may be provided through agencies, conferences, or online education, but with the limited availability of education regarding end of life care prior to entering into the field, problems remain with lack of practice preparation. The University of Iowa uniquely provides social work students end of life training prior to entering into the field and attempts to comprehensively prepare students interested in this specialty with a solid foundation of educational training in the field of hospice and palliative care (The University

of Iowa, 2016). An increase in programs that facilitate exposure to end of life social work practice prior to entering into the field can enhance interest in the field but also adequate preparation.

Further limitations arise if social workers only conduct "as needed" visits as suggested by the policy changes implemented by CMS for cost conservation (Cherin et al, 2010; Gandhi, 2012). If social workers are only conducting the initial assessments required by CMS upon admission and then only contacting patients when there is a pressing need or crisis present, rapport may not be built and the psychosocial needs that are common during this stage in life may be getting addressed via other sources or not at all. Further evaluation needs to be conducted to understand the impact that such regulatory policies may have on consumer service utilization, social work practice and the limitations it can present on research efforts.

As it pertains to the nursing discipline, the hospice Medicare policy mandates visits a minimum of every 14 days which allots them more access to patient cases and insight into intervention needs (CMS, 2008). This can sometimes lend to the blurring of discipline roles with nurses addressing psychosocial issues and less frequently making referrals to the team social worker due to the convenience of visit frequency, familiarity with patient cases, and possible desire to address patient care needs rapidly (Reese, 2011; Reese, 2013; Reese & Raymer, 2004; Reith & Payne, 2009).

Since social workers have the unique training in person-in-environment centered care, they may be more sensitive to the strengths of hospice patients and families. Further, the worldview of ethnic and racial minorities can be catered to more effectively lending to more personalized patient care and possibly increasing diverse patient utilization of these

services. This may highlight the need for policy reform from the macro-practice standpoint. By tailoring and/or redefining practice regulations towards patient care models that increase involvement of practitioners with a culturally sensitive person-in-environment focus, there may be an increase in not only the utilization of psychosocial services but also an increased opportunity to evaluate the outcomes of these care models.

Continued investigation into hospice psychosocial services is essential in order to ensure that hospice consumers are receiving the quality care they deserve at the end of life. By obtaining insight into the associated with psychosocial service utilization, patient and family care goals, interventions as well as community outreach can be tailored more specifically address patient and family needs with respect to enhancing hospice patient diversity. Practitioners, educators and researchers have an opportunity to work with politicians to create a reformed hospice health care system that continues to focus on patient quality of life that is inclusive of not only physical care, but also psychosocial needs.

Additionally, having a clear understanding of psychosocial services and service utilization can inform hospice consumers regarding future choices and opportunities related to end-of-life care. Also, greater attention can to be placed on the underserved communities of terminally ill patients and their families. By using the results of this and other studies on hospice care, community educators, physicians, and family members may be able to directly target a larger market of the patient population and provide care that is catered specifically to their needs.

## Limitations

Data from the 2007 National Home and Hospice Care Survey was collected during the time period when for-profit hospices where still increasing while the amount of not-for-profit hospice providers began to decline (MedPAC, 2013). It is unknown whether or not this external factor had any influence on the participating hospices' responses despite the rigor of the study. Another limitation to note is that the quality of psychosocial hospice service delivery cannot be concluded from this or any available literature to-date due to lack of substantive measures (MedPAC, 2013).

In addition, the lack of direct contact with hospice patients and their families and/or friends presents a reduction of the emotive and esoteric experience of hospice psychosocial service delivery that can be elicited by qualitative methods such as inperson interviews. Another limitation is that certain conclusions cannot be drawn due to the lack of availability of some variables of interest (such as patient spiritual/religious beliefs, agency availability of patient caregiver wellness services, or patient/family use of companionship service). Finally, the fact that certain psychosocial services may not have been used by some patients and families may be only related to agency ownership status but also the fact that non-mandatory service(s), were not needed.

It should be noted that the analyses that were conducted for research question number three were exploratory. The vast number of analyses that were conducted has the potential of increasing the likelihood of Type I error. Further rigorous study should be conducted in this area to evaluate service necessity, especially for underserved populations. Despite these limitations, this study uniquely provides a comprehensive examination into the psychosocial services in the American hospice system.

## **Future Directions**

Further evaluation into the psychosocial needs of terminally ill patients need to be conducted. Since this study reveals that most patients are not fully utilizing the psychosocial service being provided by hospice care agencies, a clear understanding of patient needs can determine whether the current services need to be adjusted and/or supplemented. Additionally, evaluation of the specific needs of patients that are underserved is critical in enhancing the utilization of hospice care in the U.S. If care continues to be underutilized by ethnic and racial minorities, a large part of the American population will not be adequately served at the end of life with care that is focused on quality of life. Further investigation into why these services are underutilized by certain racial and ethnic groups and whether there is a need for change would enhance the understanding of what end-of-life care needs remain to be addressed within underserved communities.

As discussed, psychosocial intervention models of care specific to the hospice population need to be enhanced and further evaluated. It may be insightful to reevaluate the current psychosocial intervention models that are used by hospice practitioner. If the literature does not reflect a large availability of effective interventions specific to hospice patients, a better understanding of what practice models are being used may guide researchers to evaluate and understand the outcomes that are currently being yielded. This may also inform researchers of what type of interventions will be practical in implementation outside of the research setting.

This study contributes to the existing literature by providing a comprehensive examination of hospice psychosocial care in America. Due to the limited research available on this subject, researchers have a foundational bases as to what psychosocial

services have been made available, which have been utilized, as well as the characteristics that may be associated with use of hospice psychosocial services. By enhancing the information available on hospice psychosocial services as a whole, further evaluation of consumer needs, agency practices, as well as quality assessments can ensue.

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### **APPENDIX**

## Hospice Care

Hospice care in the United States is a Medicare regulated medical provider under Part A for individuals that have been certified terminally ill by a medical doctor (MD) or doctor of osteopathy (DO) (Centers for Medicare and Medicaid Services [CMS], 2012). An individual is considered terminally ill, according to CMS (2013a), when their life expectancy is no longer than six months based on normal disease trajectory. Hospice provides interdisciplinary, non-curative support to the patient and their families (National Hospice and Palliative Care Organization [NHPCO], 2013a).

The care provided under hospice services differentiates from palliative end-of-life care in that palliative treatment interventions are accessible at an earlier stage in the disease process (National Association of Social Workers [NASW], 2004; NHPCO, 2014). Interventions such as the election of chemotherapy by a cancer patient are accessible whereas this service is not financially supported under hospice care per Medicare restrictions (CMS, 2012).

The required hospice interdisciplinary team as indicated by Medicare guidelines consists of a physician, nurse, certified nurse assistant, social worker, spiritual counselor, and volunteer (CMS, 2012). Other supporting disciplines such as music therapy, occupational as well as speech therapies can be provided as supported by the patient plan of care needs as deemed appropriate by each member of the interdisciplinary team (NHPCO, 2013a). The aim of the service is to assist in the relief of "total pain" (physical, mental, emotional, social, and spiritual) at the end-of-life (Saunders, 2001).

Ownership Status

Ownership status of an organization is identified based on the agency's federal tax status (Brock & Buchanan, 1987; Internal Revenue Service [IRS]a, 2014). Not-for-profit or non-profit status is a concept based on state rather than federal law that may afford the identified organization as exemption from certain state level taxes such as property or income taxes (IRSa, 2014). By law these board of director governed agencies are not allowed to appropriate surplus revenues once all expenses have been allocated; however none of the funding can be allocated to any board members (Block, 2001; Brock & Buchanan, 1987). For-profit agencies, also considered proprietary institutions or corporations, are owned by independent investors or stockholders who are allowed the freedom of accumulating surplus revenue with the regulation of paying both state and federal taxes (IRS, 2014a; Brock & Buchanan, 1987).

Hospice agencies can be government owned, not-for-profit, or for profit (NHPCO, 2013a). Due to the limited availability of literature on hospice psychosocial services, this study will comprehensively examine all forms of hospice agencies based on ownership status. Primary attention given to the psychosocial services that are available, utilized, as well as the characteristics of patients and families utilizing these services.

The four types of hospice agencies in the U.S. are defined as free standing/independent, or ones that are a part of a hospital, home health agency, or nursing institution (NHPCO, 2013b).

Size of Hospice Agency

Type of Hospice Agency

There are several ways to determine the size of a hospice agency. Examining average daily census, number of annual admissions, or determining whether the agency is

a part of a chain can all indicative of agency size (NHPCO, 2013b). Large hospices are considered to have an average of over 100 patients per day, moderate size agencies between 25-100 patients per day, and small agencies with less than 25 patients per day (NHPCO, 2013b).

Agency Chain Status

Hospice agency chain status refers to whether or not the agency is a part of a chain of hospices.

Psychosocial Services

Resource Referral

Resource referral is defined generally as information provision and linkage to private and public service providers. These services may be organized and/or arranged by the referral source but are not provided by them directly (National Center for Health Statistics [NCHS], 2007).

Mental Health Services

Within hospice care, the diagnosis and specific treatment of mental health disease is not financially reimbursed under the Medicare Hospice Benefit (CMS, 2012a).

However, assessment and support of some of the mental health issues that may occur while under hospice services are addressed as deemed clinically appropriate and indicated by the patient plan of care.

Depression symptoms are defined separately from normative grief reactions within the hospice setting (Werth et al., 2002). When a patient suffers clinical depression, they may suffer from symptoms that appear similar to grief such as poor appetite, decline in energy and activity, and diminished concentration (Werth et al., 2002). However

Werth et al. (2002) explains that these are considered neurovegetative factors are in fact normal indicators of the physical decline that occur during the disease process. The authors indicate that intense suicidal ideation, feelings of guilt, worthlessness, helplessness, and/or hopelessness are more indicative of possible depressive symptoms with terminal patients and caregivers (Werth et al., 2002).

General *anxiety* as defined by the fifth revision of Diagnostic and Statistical Manual of Mental Disorders (DSM-V) is uncontrolled worry that is uncontrolled for at least 6 months (American Psychiatric Association, 2013). *Denial* of a terminal illness is defined as a mechanism of defense intended to negate the threat of disease to a person and their daily life (Rousseau, 2000). *Suicidal ideation* is defined as preoccupation or contemplation of self-inflicted cause of death (Gliatto & Rai, 1999).

## Advanced Directives

Advanced directives are state specific legal documents that guide the care a person wishes to receive or decline if they are mentally incapable of making their own decisions (Caring Connections, 2014; Docker, 1996). Components that are considered as subcategories of advanced directives in hospice care are health care proxy, durable power of attorney, living will, do not resuscitate order, and organ donation (Caring Connections, 2014; NCHS, 2007).

A healthcare proxy identifies the individual that has been designated by a patient to make health care related decisions for them in case they are deemed incapable of making those choices for themselves or known to others (NCHS, 2007). Durable power of attorney allots for a broader range of issues as should a patient become incapable of speaking and/or making decisions for his or her self, the durable power of attorney that

they have designated for them can act on their behalf (NCHS, 2007). *Living wills* are documents indicating the patient's wishes regarding life-sustaining procedures (Caring Connections, 2014; NCHS, 2007). A *do not resuscitate* (DNR) order is provided by a medical doctor indicating that a patient is not to be revived should they stop breathing or if their heart were to stop (NCHS, 2007). Finally, *organ donation* refers to the extraction of certain organs, tissues, and body parts such as eye corneas from the patient post-death or while living for the purposes to transfer to another individual (NCHS, 2007; U.S. Department of Health and Human Services, 2014).

Grief

Grief is the natural response to the loss in any form but most commonly refers to loss as a result of death (grief, 2010).

Ethical Issues Counseling

For the purposes of this proposal, ethical issues counseling will encompass endof-life issues pertaining to things such as ventilator support termination, artificial nutrition limitations, and legal issues regarding patient care (NASW, 2004).

Respite Care

*Respite care*, defined under the Medicare Hospice Benefit as Inpatient Respite Care, is intermediate assistance for caregivers, by placing the hospice patient in an approved facility based on respective state regulations (CMS, 2012a).

# VITA

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## PUBLICATIONS AND PRESENTATIONS

Alcide, A., & Potocky, M. (2015). Adult hospice social work intervention outcomes in the United States. *Journal of Social Work in End-of-Life & Palliative Care*, 11(3-4), 367-385.

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