C.S. Lewis and Physical Therapy: What's Love Got to do with It?

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Abstract

This research was concerned with temporary nursing home residents' physical therapy progression and regression and its relationship to social support as operationalized by C.S. Lewis' *The Four Loves*. Most previous research has concluded that there is a relationship between social support and health. This researcher informally interviewed 17 subjects participating in physical therapy at Deer Creek Rehabilitation of Wimberley, TX. The interview measured their amount of social support as operationalized by Lewis' *The Four Loves*. These 17 subjects' initial and final MDS (Minimum Data Set) physical therapy score differences were collected. The MDS Scores and Love Interview Scores were analyzed using SPSS software in a Pearson Correlation Test. The correlation coefficient was .037. This is an extremely weak relationship, which means that this research discovered no relationship between C.S. Lewis' *The Four Loves* social support and physical therapy progression and regression. This may be due to many limitations with this study.

Key Words: C.S. Lewis, *The Four Loves*, Social support, Physical therapy.

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C. S. Lewis' *The Four Loves* and Physical Therapy: What's Love Got to do with it?

Chapter 1: Introduction

Seventy-seven million Americans will be over the age of 65 in 2040, (Stone, 1999) and according to the National Center for Health Statistics (1999), the average life expectancy age has increased to 77.8 years old. An estimated 1,465,000 people over the age of 65 occupied nursing homes on any given day in 1997 (Gabrel, 2000), a large number of this aging population will undoubtedly require some type of long-term care. These numbers are a huge concern of America today.

Repeatedly researchers have reported health benefits resulting from social support (Berkman, Glass, Brissette, & Seeman, 2000; Liu, Liang, & Gu, 1995; Richmond, Ross, & Egeland, 2007). In 1999, the Surgeon General, Michael K. Wyrick, stated that overall health and well-being can be improved by becoming moderately active on a regular basis (Center for Disease Control and Prevention, 1999). It is assumed that as people get older their need for physical therapy (PT), which can increase health, will exponentially increase. There are a number of factors that facilitate physical therapy progression, both physical and psychological.

This thesis will focus on the psychological aspect of health, specifically social support as operationalized by C. S. Lewis, an Irish scholar best known for his work on Christian apologetics, fiction, and literary criticism. The issue at hand is finding if the amount of social support in a patient's life affects the progression or regression in a physical therapy program in a short-term rehabilitation setting. In order to fully understand the relationship between physical therapy and social support, the remainder of

this chapter will explore the PT process for an elderly person admitted into a PT program at a skilled nursing facility. Then, the types and levels of social support defined in other literature will be described. The abundance of research that concerns health and social structures that their relationship will be discussed in the following chapter (Barnhart and Connolly, 2007; Delaune and Ciolek, 2007; Hienemann, 2007; Ries, 2007; Zunzunegui, et al. 2004). Then, C. S. Lewis' *The Four Loves* will be described and used as the basis of social support research since his humanistic point of view may broaden the modern health care perspective of social support. His unique outlook on social support inspired an experiment conducted in a skilled nursing facility's physical therapy program that will further investigate the relationship between social support and health and its importance today. Chapter three will explain the subjects, procedures, interview and measures, data analysis, and criteria for significance from the experiment. The results will be reported in chapter four, and the final chapter will analyze the results to obtain meaning to the research concerning physical therapy and social support.

Physical Therapy

Physical therapy (PT) is a health care service that examines and treats problems that affect people's abilities to move and function independently and has the tendency to increase overall health in its participants. The physical therapy profession is concerned with management and prevention of movement disorders occurring throughout the lifespan (Heinemann, 2007). It is centered on the key elements of health promotion, prevention, treatment, and rehabilitation. Physical therapy is widely accepted in the healthcare profession because it is a service that offers regular, moderate physical activity. The vast majority of Americans' health and well-being substanitally benefit

from physical activity (Barnhart & Connolly, 2007; Center of Disease Control and Prevention, 1999). As the United States' population continues to live longer, a large portion of people will at some point, either temporarily after a surgery or for the remainder of their life, be a resident at a nursing home where physical therapy programs are offered and are highly recommended. It is important to understand what PT services are and how short-term rehabilitation at a nursing home center can be improved.

Short-term physical therapy programs are offered to geriatric patients who no longer require acute hospitalization but do need additional treatment before going home. All skilled nursing facilities are designed to help patients recover and return home. Individuals admitted to short-term rehabilitation settings receive medical/surgical nursing care and rehabilitation therapy. The usual length of stay for patients on the short-term unit is from five days to six weeks. Types of medical problems suitable for care include: recovery following major surgery, including an amputation, joint replacement, or abdominal operation; a need for rehabilitation therapies, such as a physical, speech or occupational therapy; heart and lung conditions; and management of acute and chronic wound care (Ries, 2007).

When a patient enters a nursing home facility, a physical therapist will initially conduct a subjective evaluation of a patient's medical history, which is guided by symptoms and complaints. Then, the therapist will administer an objective assessment in the form of a physical examination, which is in turn guided by the patient's history and medical record. This semi-structured process is used to establish functional limitations, the diagnosis for which therapy is indicated, guide the therapy plan of care and a baseline for monitoring progress. Guided by the assessment findings, the physical therapist will

then develop and facilitate a treatment plan. Aside from the various therapeutic techniques involved in therapy, the treatment may include prescribing and advising assistive technology, including mobility aids, standing frames, and walking devices. The physical therapist should consider functional progress and include in their assessment ongoing review and refinement. Patient education is a key aspect of all treatment plans (Delaine & Ciolek, 2007).

In order to help a nursing home rehabilitation patient to become independent as soon as possible, the patient undergoes a rigorous therapy schedule. The patient's day usually consists of two hours dedicated to physical therapy and two hours of occupational or speech therapy as well. During the "hands on" PT sessions, the patient is educated on gait safety and how to perform exercises on their own. The therapist develops specialized, safe, and effective therapeutic programs, and usually a personal relationship with their patients. The relationships the patient shares between the clinician and others (family, friends, co-workers) are very vital in the patient's recovery time, overall health, and social support. Physcial therapy is a part of the health care system and will be used in this research to build upon previous research concerning health and social support, as described by Lewis' *The Four Loves*.

Social Support

Social support is defined as a foundation including friendly companionship or relations. There have been multiple studies investigating factors that increase overall health in people: activity levels, employment, socio-economic status, religion, age, sex, education, smoking habits, or social support (Koenig, 2000; Seeman, 1996; Sloan, Bagiella, & Powell, 1999). The last factor, social support, as operationalized by C.S.

Lewis in *The Four Loves*, will be the focus of research concerning physical therapy progression.

Seeman (1996) describes social networks "as the web of social relationships that we each maintain, including both intimate relationships with family and close friends and more formal relationships with other individuals and groups" (p. 442). It is through this web of social ties that individuals can be socially "integrated" into the larger society in which we live. Social support is often replaced or used loosely and interchangeably with terms such as social network, social relationships, social ties, and social integration (Berkman, Glass, Brissette, & Seeman 2000), and can include family, children, spouse, parents, co-workers, religious groups, and other relationships. Turner and Marino (1994) categorize social support, especially when an elderly person's relationships are in question, into four main types of relationships: significant other, relatives, friends, and co-workers. Someone from one of these categories usually serves as the confidant, who is a close friend or associate to whom secrets are confided or with whom private matters and problems are discussed, especially in a legal sense. But when an elderly person does not have anyone to look after him or her, many turn to religion for support (Koenig, 2000). For these people, and even others who may have a "strong support system," prayer acts as the security blanket.

Richmond, Ross, & Egeland (2007) hypothesized that concepts of health are particularly shaped by larger social dynamics, including family, community, nature, and Creator. These researchers refer to four broad classes of supportive behaviors or acts: positive interaction, emotional support, tangible support, and social support. Positive interaction refers to the support a person receives from spending time with others in

social settings. Emotional support is the guidance and feedback that may help a person find a solution to a problem. Tangible support refers to material aid and affection and intimacy relates to caring, love and empathy. (Richmond, Ross, & Egeland 2007 p. 1827). A key emerging theme that their research determined was that of interdependence and correctedness and that social supports provide an opportunity for sharing problems and feelings, and for gaining encouragement and strength (p. 1828).

Glass, Mendes de Leon, Seeman, & Berkman (1997) used two models to describe main concepts of social networks: the structural model and the role-specificity model. The structural model stresses networks and ties between people, while role-specificity emphasizes the nature of the social roles attached to each relationship (Argyle, 1992). Liu, Liang, & Gu (1995) categorizes social support into two types: instrumental and emotional support. Specifically, instrumental affects external factors, such as grocery shopping and trips to the doctor. Emotional support covers any support related to the internal thoughts and feelings.

Most previous research linking social support and health has been performed with a large selection of people from all ages, measuring an overall, general health (Dyer, Pickens-Pace, Burnett, & Kelly, 2007; Glass, Mendes de Leon, Seeman, & Berkman, 1997; Zunzunegui, et al. 2004). The research at hand will quantify the physical therapy progression or regression made by short-term rehabilitation nursing home subjects actively participating in a physical therapy program. Since there is such a broad term used for social support, maybe a different perspective can broaden the preexisting ideas already available in the traditional health care profession. It is quite possible that looking specifically through love and affection could allow more insight to social support. A

popular approach to love and affection is through C.S. Lewis' humanistic perspective. This perspective is best understood with Lewis' book, *The Four Loves,* which is why it is the basis for this research concerning social support and physical therapy.

Clive Staples "Jack" Lewis (29 November 1898 – 22 November 1963), commonly referred to as C. S. Lewis, was an Irish author and scholar. Lewis is known for his work on medieval literature, Christian apologetics, literary criticism, and fiction. Today, his most popular works are *The Chronicles of Narnia* series. In January 1958 Lewis received a request from the Episcopal Radio-TV Foundation of Atlanta, Georgia, to make some recordings on a topic of his choice to be played on the radio. A few days later, as quoted in Walter Hooper's *C.S. Lewis: A Complete Guide to His Life & Works* (1996), Lewis replied "The subject I want to say something about in the near future in some form or the other is the four loves – Storge, Philia, Eros and Agape. This seems to bring in nearly the whole of Christian ethics" (Hooper, 1996 p. 367). He finished his scripts, the *Talks on Four Loves,* that summer and dedicated an hour to each of the loves. The recordings were heard later over various radio stations throughout the United States.[1] These scripts became the basis of his book *The Four Loves,* which further describes four types of love, Storge, Philia, Eros and Agape, but with a broader and more modern perspective. He renames the loves Affection, Friendship, Eros, and Charity. These loves will be further explored in the following chapter after previous research concerning social support and health is reviewed.

Since improving health is in such high demand now, it is important to look at all aspects of health care to better understand where the improvements can be made. Since

[1] The *Talks on Four Loves* did not receive good reviews in the United States.

the Baby-Boomer generation is getting older (Cauchon, 2008), and are likely to reside in a skilled nursing facility for some time, physical therapy programs are in high demand. These PT programs allow patients to receive extra care after leaving a hospital, but before returning independently home. PT focuses on health promotion, prevention, treatment, and rehabilitation. There are many external factors that can affect how well each patient progresses in his or her PT treaments. One factor is social support, which is the foundation in one's life that includes friendly companionship or relations. Since social support is such a broad term, C.S. Lewis' *The Four Loves* will be used as the cornerstone to compare to physical therapy progression or regression. The next chapter will explore previous research that concerns health and social support. It will also further describe how Lewis used Affection, Friendship, Eros, and Charity to be used as a means to explain social support. The third chapter will explain the methods and procedures of the experiment that will attempt to discover the relationship between love and physical therapy progression or regression. Chapter four will state the results from the study. Finally, chapter five will discuss what the results mean, and how it relates to healthcare today, especially physical therapy.

Chapter 2: Review of the Literature

Some have argued that increasing life expectancy may ironically be producing longer life, but worsening health (House, Robbins, & Metzner, 1994; Verbrugge, 1984). Thus, there has been much research curious to see how to improve health through external factors (Seeman, 1996; Steinhauser, Christakis, Clipp, McNeily, McIntyre, & Tulsky, 2000; Stewart, Teno, Patrick, & Lynn, 1999). This chapter will dive into previous research concerning physical and mental health and other factors that can affect the two. After a thorough look has been made by earlier progress in the area of social support and its relationship to health, the researcher will define social support from a variety of sources. The source of greatest concern is from C.S. Lewis' novel *The Four Loves*. Each of Lewis' loves will be analyzed and applied to the life of a short-term rehabilitation setting patient. The positive findings from a strong social support, along with decreased health due to low amounts of social support will be discussed. Then, the negative outcomes from social support and the ambiguity of the relationships between social support and health will be covered. All of the information gathered will lead into the problem, question at hand, and significance of this research.

Positive Effects of Social Support

Over the past twenty years there have been numerous articles and books on issues related to elderly populations' health and social support (Dyer, Goodwin, Pickens-Pace, Burnett, & Kelly, 2007; Grundy and Sloggett, 2003; Murray, Kendall, Boyd, Worth, & Benton, 2004; Koenig, 2003; Richmond, Ross, & Egeland 2007; Ries, 2007; Zunzunegui, et al. 2004). Most previous research agrees that social support can promote health by providing positive experiences and social rewards for improved ability to cope with

stressful events (Richmond, Ross, & Egeland, 2007; Zunzunegui, et al. 2003). In many studies, specific aspects of social support, such as family, gender, and religion, have been analyzed and have discovered that there is a strong relationship between these sub-groups of social support and health. Richmond, Ross, & Egeland (2007) states that the strong paralleled results indicate that social support enhances health. One study boldly stated, "It is now widely accepted that social relationships and affiliation have powerful effects on physical and mental health for a number of reasons" (Berkman, Glass, Brissette, & Seeman, 2000 p. 843). To promote health, House, Robbins, & Metzner, (1994) states that stress reduction, social relationship strengthening, and self-efficiency must be implemented and enhanced. To further explore the benefits of social support, family, gender, and religion and how they can increase health will be covered more in depth in the following chapters.

Family

The role of family is significant factor in most people's support system. Zunzunegui, et al. (2003) reported that the attention received from specifically children, and not just family members, was the highest quality of social support to receive for an elderly person. These researchers also revealed that an unhealthy older person that receives a healthy amount of attention from their children, tend to self-rate their health much higher than others with the same age and number and degree of conditions that do not have strong relationships with their family. But in China, it does not matter from where the support comes. As long as the support received was greater than the support that they are expected to give the younger generations, the Chinese elderly are able to benefit (Liu, Liang, & Gu, 1995). However, family is only one part of social support.

Gender

In addition to family, a person's gender can affect his or her social support level. In America, the genders' social support is affected by external factors quite differently. Richmond, Ross, & Egeland (2007) stated that if older men have a solid network and emotional support, then their health is higher or at least self-rated higher than those with little or no social network. There is an even higher correlation between support from children and for men's health, especially if they have low levels of education (Zunzunegui, et al. 2003). Thus, the more support from family members, the healthier older men are, or perceive themselves to be. With women, the conclusions were not so simple.

Grundy and Sloggett (2003) discovered that women's marital status and social support were the two most meaningful factors in health when compared to eight others (smoking, age, education, marital status, social support, housing tenure, and income). Another interesting finding was a lack of health advantage for married older people, particularly in women. In addition, the overall health of women that had never been married was significantly high (Grundy and Sloggett, 2003). It may seem that husbands and children may actually drain women and decrease their health. Richmond, Ross, & Egeland (2003) measured three different types of social support: positive interaction, confidence interval, and emotional support. There was only a significant relationship between health and emotional support for men, while women's health had strong relationships across all three categories. Religion is another often researched topic concerning social support.

Religion

Since religion tends to be a large influence on the elderly, it is important to not overlook this aspect of social support. Two longitudinal studies observed the mortality rates of subjects' church attendance and religious involvement. They both determined that only women had lower mortality rates (House, Robbins, & Metzner, 1982; Strawbridge, Cohen, Shema, & Kaplan, 1997), which means that their results suggest that attending church regularly does not increase their longevity. An additional 350 studies have examined religious involvement and health and the majority of these have stated that religious people are physically healthier, lead healthier life styles, and require fewer health services (Koenig, 2000; Koenig, McCullough, & Larson, 2001). Also, policy, research, and practical guidelines for health care professionals now routinely suggest that spiritual needs are an essential component of holistic health care assessment (Calman, 1992; Health, 1996; Murray, Kendall, Boyd, Worth, & Benton, 2004; World Health Organization Expert Committee, 1990; World Health Organization, 1998).

Although religion appears to be associated with health in the United States, there is little evidence to support this relationship in secularized Australia. Koenig (2003) conducted a study of 108 patients and measured the efficiency of 25 coping behaviors. Prayer ranked seventh in effectiveness. Forty-one percent of the subjects indicated that they would increase prayer in response to stress, and fifty-six percent stated that prayer was helpful. Other Australian studies in which Koenig has been involved reported greater marital stability, lower rates and more negative attitudes toward suicide, less anxiety and depression, and less alcohol and illicit drug use among the religious (Koenig, McCoullough, & Larson, 2001).

Religion is especially important to terminally ill patients. It provides them with social support and hope, and helps them cope and find meaning in their illness (Daughtery, et al. 2005; Fehr and Maly, 1999; Johnson and Spilka, 1991; Roberts, Brown, Elkins, & Larson, 1997; Silberfarb, et al. 1991). Research also indicates that among cancer patients, religion and spirituality are positively associated with better quality of life, psychological adjustment, and well-being (Brady, Peterman, Fitchett, Mo, & Cella, 1999; Cotton, Levine, Fitzpatrick, Dold, & Targ, 1999; Dye, Baker, & Stein, 1999; Fehring, Miller, & Shaw, 1997; Kaczorowski, 1989; Mickley, Soeken, & Bechler, 1992; Daughtery, et al. 2005). There is an abundance of research that supports the theory that the greater the amount of social support, the greater the health of a person, and most of this research also suggests a decline in health from decreased social support.

Negative Effects Due to Lack of Social Support

If high levels of social support leads to increased health, then it should be an easy concept that with lower levels of social support, the lower the resulting health will be. Berkman, Glass, Brissette, & Seeman, (2000) hypothesized that without these strong relationships, the elderly will have "accelerated aging" because social isolation is such a chronically stressful condition. There have been multiple studies suggesting the negative side effects in overall health in people without, or with low, social support (Berkman, Glass, Brissette, & Seeman, 2000; Dyer, Goodwin, Pickens-Pace, Burnett, & Kelly, 2007; Liu, Liang, & Gu, 1995). One research study stated that without strong support services, the elderly have a higher tendency to self-neglect and to not care about the tasks that they cannot perform by themselves, like bathing or buying groceries (Dyer, Goodwin, Pickens-Pace, Burnett, & Kelly, 2007). Thus, without other people to help and

to love them, the elderly have a tendency to allow themselves to decline in health. Berkman, Glass, Brissette, & Seeman, (2000) even suggest that without these strong relationships, the elderly will have "accelerated aging" since social isolation is such a chronically stressful condition. The lack of a social network can lead to loneliness, which also has strong negative impacts on an older person's health status and can cause depression (Liu, Liang, & Gu, 1995).

Research supports that a depressed state of mind can be harmful to general health. Hays, Saunders, Flint, Kaplan, & Blazer (1997) reported that the elderly who were more depressed were significantly more likely than others who were less depressed to experience impairment across all domains of physical function: personal care abilities, strength and range of motion, and the capacity to ambulate, climb stairs, or do heavy housework. These findings were consistent with other literature on depression and functional ability, but extend our knowledge by further describing the harmful effects of depression to be broad-based. A decrease in health and functional ability that is not caused from too little social support may be caused by receiving too much.

Negative Effects Due to High Amounts of Social Support

Research has pointed out that receiving too little and actually too much social interaction can be devastating to patients (Hays, Saunders, Flint, Kaplan, & Blazer, 1997; Thoits, 1992 and 1995; Turner and Marino, 1994). Relationships may be too overwhelming and/or too overbearing. With too much social support, the patient may feel helpless, and too dependent of others, which may create thoughts of how expendable he or she actually is now. The effects of social support on people with disabilities were specific and consistent in Hays, Saunders, Flint, Kaplan, & Blazer (1997) and Turner and

Marino's (1994) findings. They determined that receiving assistance from friends and family heralded declines across most functional domains. Thus, it is important to understand that social ties can actually be harmful. Since this frame of mind has the tendency to be underemphasized (Thoits, 1985; Thoits, 1995), it is important to allow the elderly or impaired loved one to feel independent and important in the broad scope of life.

Uncertainty of the Role of Social Support in Patient Care

Even though there is already so much information gathered supporting that there is a relationship between social support and health, whether it is helpful or hurtful, there is still some research that is inconclusive or too inconsistent to fully support the association. For example, Koenig (2003), who is a renowned researcher concerning religion and health, states, "until more is known, including spirituality in medical practice would be premature" (p. 51). Zunzunegui, et al. (2003) came to many conclusions about family and health being related, especially children's importance to the elderly. But they concluded that there was not enough significant data to support the impact of friends, who are included in the social support umbrella.

Also, in the Richmond, Ross, & Egeland (2007) study, which was mentioned previously about males' and females' perceived health, only men had significant findings with emotional support. The amount of confidence and positive interaction did not affect the men's health at all. After Sloan, Bagiella, & Powell (1999) performed their research on the relationship between religion and health; they stated, "published work on religion and health lacks consistency, even among well-conducted studies" (p. 666). Their research had no significant findings, and it is quite possible that this thesis may also reach

no significant conclusions. All of these previous researchers share similar perspectives of social support, which limits the amount of information that can be gained. Research regarding social support needs to broaden in order to expand its relationship with health. One way to expand the social support schema is to only look at the love and affection influencing people's lives. A detailed discussion of love and affection is in *The Four Loves*, written by C. S. Lewis.

The Four Loves

As discussed in this chapter, there are many techniques and phrases to categorize and describe social support: social network, social relationships, social ties, and social integration (Berkman, Glass, Brissette, & Seeman, 2000). These contexts can include family, children, spouse, parents, co-workers, religious groups, and other strong companionships. Perhaps the term "social support" is used too often and has become mundane. Maybe "love" from a more humanistic point of view can better explain the relationships between people. This research, which focuses on the relationship between social support, as operationalized by Lewis, and physical therapy progression or regression in subjects at a skilled nursing facility, will thoroughly discuss one person's idea of social support. Since he never purposely intended for his work, *The Four Loves*, to describe social support in the health care system, it adds a fresh spin to such a heavily researched topic. C. S. Lewis used his theological point of view to portray the ancient descriptions of love, Storge, Philia, Eros, and Agape. These scripts soon became his book *The Four Loves* that captures these loves in a more modern form as Affection, Friendship, Eros, and Charity.

Lewis (1960) begins his entire book with the phrase: "God is Love" (p. 1). His entry statement sets the tone for the rest of his work. Each of the loves that he discusses is intertwined with Christianity. Not only is each love linked with his theological perspective, but also precedes it and follows it. Many examples of each love are given. The remainder of the chapter will summarize key points that C.S. Lewis made in his book *The Four Loves.* Modern application of his ideas of love will be given, especially how each love can relate to social support in a skilled nursing facility, which will lead to the research's problem, question, and significance.

Affection

The first love that C.S. Lewis describes is Affection, which is a love of familiarity. The Greeks used the word "Storge" to describe this friendship love (Inman-Amos, Hendrick, & Hendrick, 1994). Affection is the love "especially of parents to offspring but also encompasses the love from children to the parents" (Lewis, 1960 p. 31). It is the type of love is the most "animalistic, modest and familiar of the loves" (Lewis, 1960 p. 31). Lewis describes this social support, Affection, as being the love that both humans and animals share quite commonly. It seems rather shocking to be comparing human love to animal love, but he further explains that it is a fondness that is spurred from family ties. The image that should be in one's mind is of a mother nursing her baby, whether it is a human mother or a cat mother. When stating that it is a modest love means that no one is so proud of the relationships that fall into the Affection category that it is yelled from roof tops like a new found intimate love affair. These relationships are actually quite expected. It is predictable that a mother and father love their child; it is not a shock for that bond to be there. In a nursing home, an example of

Affection can be portrayed in grown children and their families willingly and gladly visiting their loved one in the nursing home on the weekends. This act is not uncommon, but highly expected and encouraged. If a nursing home resident does not have visitors come on the weekends, then it is a common thought that they are being deprived of the love and Affection that they deserve. Lewis states that Affection is the most familiar love. Thus, it is a love not shared with a stranger or a new friend or lover. It is a love that has grown with time, years, and comfort levels.

So Affection is not present only in relationships between family members but should encompass all good relationships. "As gin is not only a drink in itself but also a base for many mixed drinks, so Affection, besides being a love itself, can enter the other loves and color them all through and become the very medium in which from day to day they operate" (Lewis, 1960 p. 34). Thus, Affection is wrapped into friendships, family ties, and love affairs, and increases their value and warmth. Lewis further illustrates Affection with the reference that God calls Himself "Father" to better explain His unceasing love for humans (Isaiah 63:16, Matthew 6:9, John 8:41, etc;). It is a much easier for humans to understand the concept of their Lord loving them as a father, not always giving them what they want, but what they need. Lewis says that Affection is best demonstrated when two people can sit in complete silence with one another, and never be bothered by the lack of conversation. They are simply enjoying being in each other's company. "No need to talk. No need to make love. No needs at all except perhaps to stir the fire" (Lewis, 1960 p. 35).

Friendship

Friendship, according to C.S. Lewis, "is the least natural of loves, the least instinctive, organic, biological, gregarious and necessary" (Lewis, 1960 p. 58), which means that Friendship love is the least important to humans. Thus, if one has all of the other three loves, Affection, Eros, and Charity, he or she will not have missed out on much. This statement is best exampled in the lives of the very young and old populations. For example, a young single girl's friends are her world. This girl will most likely spend every moment outside of work and school with a group of girls, her friends. The same goes for an elderly widow. Now that the man that she has spent the past fifty years with has passed, her time is usually spent with other elderly widows or friends made at church or other social gatherings. Friendships are usually only valuable when there is no one else to rely on, which greatly increases their significance. "Very few modern people think Friendship a love of comparable value or even a love at all because very few people now experience true friendship" (Hooper, 1996 p. 371).

According to Lewis, true Friendship begins the instant that two people stand together in an immense solitude. "It arises out of mere Companionship when two or more of the companions discover that they have in common some insight or interest which others do not share" (Lewis, 1960 p. 65). Friendship must also be about something, anything. An example in a nursing home setting is how the residents become friends over games and dinner, which is usually the only time that they have to visit without having to participate in therapy of some sort. During activities, games, and meals are usually when this population's friendships are most likely born. These relationships are quite valuable to the residents especially if there is a lack of family support, or if he or she is widowed. The down side of the elderly population making, or

even having friends, is the high mortality rate of their age group. Many elderly people think, "what's the point to making new friends?" because they may already be attending a funeral every couple of weeks or so. The love of Friendship is probably more directed to a younger audience.

Eros

A young newlywed couple is usually the picture that comes to mind when the word Eros is mentioned. Eros is the state of "being in love" (Lewis, 1960 p. 91). Eros is commonly misused to refer only to sexuality, when in fact, Venus is the love substituted for desire. Eros is the love that encompasses Venus, but is deeper, more powerful, and everlasting. The Lord wishes a man to look upon a woman through a heart filled with Eros, not with the eyes full of Venus. "Eros makes a man really want, not a woman, but one particular woman. In some mysterious but quite indisputable fashion the lover desires the Beloved herself, not just the pleasure she can give" (Lewis, 1960 p. 94).

Eros is usually accompanied with Affection and Friendship. Lewis states that "nothing enriches erotic love than discovering that the Beloved can deeply, truly and spontaneously enter into friendship" (Lewis, 1960 p. 67). Thus, erotic love can also be based upon familiarity and on the simple enjoyment of each other's company. Now, like two friends, the couple can stand side by side, looking ahead, but also stare into one another's eyes, looking into their future.

Eros may seem to be more present in a young couple, but this deep passion, is more often seen in the elderly. Their love is no longer clouded with lust and Venus; it is now in Eros' purest form, "when Venus is reduced to a minimum" (Lewis, 1960 p. 96). Since many in the elderly age group have lost their significant other, Eros maybe built

around memories. Once the lost love is brought up, aged twinkling eyes become young again. But just because someone is married, does not mean that they look at their spouse with eyes full of pure love. Eros is a difficult love and must be worked for.

Lewis reminds his readers that God uses Eros to describe the love between Christ and the Church: "The husband here is the head of the wife just in so far as he is to her what Christ is to the Church – and gave his life for her" (Ephesians 5:25). This headship is most fully embodied in him whose marriage is most like a crucifixion; whose wife receives most and gives least (Hooper, 1996). But Eros is unique because one of the first things Eros does is to obliterate the distinction between giving and receiving (Lewis, 1960 p. 96). These vows cannot be kept except by humility, charity, and divine grace, which is the center of Christian living. Thus Eros, like all the other loves, dies or becomes a demon unless it obeys God (Rougemont, 1940).[2]

Charity

The chapter about Charity is opened with a description of how a reviewer of William Morris' poem "Love is Enough," simply stated: "It Isn't." Lewis uses this example to illustrate how all of the natural loves described previously, Affection, Friendship, and Eros, are not enough alone. "To say this is not to belittle the natural loves but to indicate where the real glory lies" (Lewis, 1960 p. 116). It may also seem that the other loves act as a rival to Charity, the love to and from God, but this is not the case. "When obedient to Him there is no rivalry. And when disobedient there is no rivalry either, because without His help they cannot even remain themselves and do what

[2] The researcher had the opportunity to meet with Walter Hooper, C.S. Lewis' personal secretary for many years. When interviewing Mr. Hooper, he stressed this quote from Denis de Rougemont because it was so important to Lewis' perspective on the loves.

they promise to do. Left to themselves they either vanish or become demons" (Lewis, 1960 p. 119). Where a natural love is allowed, it must be perfected through the love of Christ, through Charity. These loves prove to be unworthy to take the place of God by the fact that they cannot even remain themselves and do what they are promised to do, provide comfort, companionship and passion, without God's help. "They are taller when they bow" (Lewis, 1960 p. 119). Emerson has said, "When half-gods go, the gods arrive," which means that when God arrives (and only then) the half-gods can remain.

Charity and God are the basis of all loves, the beginning, middle, and end. To love at all is to become vulnerable, and to allow your heart to be certainly wrung and possibly broken. "If our hearts need to be broken, and if God chooses this as the way in which they should break it, so be it" (Hooper, 1996 p. 375). Sometimes God uses one of the natural loves to break a heart. This heartbreak can be seen, especially to an older adult, through death of close loved one such as a parent, child, friend, or spouse. A frightening point that Lewis makes about getting away from these tragedies is that "the only safe place from all the dangers and perturbations of love, is Hell" (Lewis, 1960 p. 121). It is important not to place all of your love in people or in anything that you may lose. If love is to be a blessing, and not a misery, it must be for only God, who will never pass away.

Another difficult concept that Lewis stirs up is how we must turn down or disqualify our nearest and dearest when they come between us and our obedience to God. "Heaven knows, it will seem to be pure acts of hatred, but we must not act on the pity we feel; we must be blind to tears and deaf to pleadings" (Lewis, 1960). Lewis states that it can be completely unbearable, but in the end, there is much blessing and that one must

walk by faith. "He who loves father and mother more than me is not worthy of Me. And he who loves son or daughter more than me is not worthy of me. And he who does not take his cross and follow after me is not worthy of me. He who finds his life will lose it, and he who loses his life for My sake will find it" (Matthew 10:37-40).

The love of God, Charity, is so powerful, that He unquestionably loves all. His love is even more than pure Affection, which "loves the ugly, the stupid, even the exasperating" (Lewis, 1960, p. 32). Charity, Divine Love, is pure Gift-Love. It is the act of ceaseless and bountiful giving, with no intention of ever receiving anything in return. It is seen in the kind acts that describe a mother for her child, completing tasks that may never receive any appreciation. The easiest way to show Charity to God is through worship and acts of Gift-Love to others. Thus, going to church is one of the easiest ways to quantitatively measure Gift-Love. But the best example of Charity is Jesus dying on the cross for millions who may or may not even love Him, so everyone may live eternally.

Conclusion of The Four Loves

C.S. Lewis's *The Four Loves* inspired this research, which is concerned with the relationship between social support and physical therapy progression or regression, because of his passion and knowledge for love. There has been much research measuring social support and its relation to health, but not much has been said with a religious spin. It was important for this research to have a religious base since our mental and emotional health have such a great impact on our physical well-being.

Problem, Question, and Significance

While there is an abundance of information regarding health and social support and the direct correlation between these two variables, there is little research directed toward short-term rehabilitation nursing home patients' physical therapy programs and the patients' social support systems, especially not in regards to *The Four Loves*. The present study was an exploratory investigation whose aim was to examine the role of Affection, Friendship, Eros, and Charity in patients' progression or regression in physical therapy programs at skilled nursing facilities. Specifically, the researchers sought to answer the questions:

RQ 1: Are skilled nursing facility patients able to describe the quality of social support as operationalized by C. S. Lewis' *The Four Loves*?

RQ2: Is there a relationship between skilled nursing facility patients' perception of social support as operationalized by C. S. Lewis' *The Four Loves* and their physical therapy progression or regression?

The answers to these questions should be relevant to anyone that has or will have a loved one in a nursing home, whether it is their permanent or temporary residence, or is a healthcare provider for the geriatric population. If the results of this study suggest that strong social support does impact nursing home patients in their physical therapy, then everyone needs to be encouraged to take time to visit and demonstrate love to their family member or friend, for better health results. With those results, health care providers at these facilities can stress to the family and friends of the patient how vital they really are to their loved one's recovery, and the providers could actually take on this role, if there is no one else to "love" or support their patient. If the results of this study suggest that there is no relationship between love and physical therapy, family and

friends should continue to love and support their loved one while in the nursing home. This support system should understand that even the happiest of people must overcome the effects of old age, and that sometimes it does not matter how much a person is loved or not, the body is affected by many other factors. Social supports should not blame themselves, if their loved one is not able to increase in health even though they are visited everyday. The human body eventually does get exhausted.

In the next chapter, the methods of research will be further explained by thorough descriptions of the subjects, administration of the interview, interview and measures, data analysis, and criteria for significance. Chapter four will report the results and chapter five will discuss the results and apply the findings back to the questions at hand and its significance to today.

Chapter 3: Methods

This chapter addresses the methods utilized to answer the question of finding a relationship between a social support system, as described by Lewis' *The Four Loves*, and progression or regression in a physical therapy program in a short-term rehabilitation nursing home setting (Deer Creek of Wimberley, TX). There will be five sections: subjects, procedures, interview and measures, data analysis, and criteria for significance. In chapter four, the results will be reported and chapter five will explain how the results are important to the healthcare profession today, limitations of this study, and directions for continued research.

Subjects

Over a 3 month time period, 34 short-term residents at Deer Creek of Wimberley, TX willingly participated in this research with no incentive other than the opportunity to engage in a conversation with a Texas State University undergraduate student. The subject qualifications included: has or is currently receiving physical therapy treatment from Deer Creek's physical therapists, must have 2 Minimum Data Set (MDS) PT scores that must have at least 2 weeks between the two scores, approved by the physical therapists and social services for this research, must take part in a interview regarding the amount of love and social support in their life, and must allow the researcher access to medical records pertaining to physical therapy. Of the original 34 subjects, only 17 met all of the qualifications. Five men and twelve women, whom were all sixty-five years or older, were used in this study seeking a relationship between social support and physical therapy.

Research Procedures

Each subject was asked to participate in research concerning the relationship between the amount of love and social support, as operationalized by C.S. Lewis in *The Four Loves*, and his or her physical therapy progression or regression. Once the patient decided to participate, all the information that stated his or her name was replaced with a number, in order to keep the privacy of the participants. If the patient agreed, then a two-part process occurred. First, an informal interview, which was written by the researcher, was given orally to the subjects. This interview subjectively measured each patient's amount of love in their life using C.S. Lewis' *The Four Loves* as the basis for the questions. Each interview took place in the patient's room or in the hallway of Deer Creek, and they usually lasted at least an half an hour to conduct. Most the patients thoroughly enjoyed getting the opportunity to speak to a visitor about their family and friends. These answers were recorded, quantified, and labeled the "love interview score." Secondly, each subject's beginning and following and/or ending MDS physical therapy scores were collected. Each subject's second MDS score was subtracted from the initial MDS score. The difference was recorded and was named the "MDS score" for later references. These numbers were entered into SPSS software as a Pearson Correlation Test.

Interview and Measures

An example of the interview guide that was administered orally to the a subject (#25) is in Appendix A. To quantitatively measure these qualitative results, each answer was changed to a number. The rating system was as follows:

Highly Agree =	5
Agree =	4
Disagree=	2
Highly Disagree =	1

The sum of these numbers will be referred to as the patients' "love interview score," and were used to compare to the MDS results.

The Minimum Data Set is an abstraction system that represents an initial effort to establish uniform standards for collecting essential health data especially at nursing homes for billing purposes (Werley, et al. 1988). An example of the 2.0 MDS form from the same patient is in Appendix B (initial) and C (final). The lower a patient's MDS score, the more capable the patient, who means that the more dependent subject will have a higher score. There were two MDS scores chosen. The first was each patient's initial MDS physical therapy score that patients received once they entered Deer Creek's facility. The second was the MDS score that the patient received from the physical therapist two to four weeks following the initial evaluation, or at their departure from the facility. The difference between those two scores determined if the subject progressed or regressed during their stay at Deer Creek. Thus, if the second score used for this research is greater than the first, then the subject regressed in their physical therapy since his or her initial evaluation. But if the difference between the two numbers was negative, the patient progressed.

Here are two examples to understand the concept:

Example #1: Patient #1 has an initial MDS score of 6, and a discharge score of 1 (score difference is -5). The patient progressed in their physical therapy during their stay at Deer Creek.

Example #2: Patient #2 has an initial MDS score of 3, and a discharge score of 4 (score difference +1). The patient regressed in their physical therapy during their stay at Deer Creek.

The difference between the MDS scores and the love interview score were the basis in determining if there was a relationship between social support, as described by Lewis, and physical therapy.

Data Analysis

The highest possible score in the Love Interview was 60 (most loved), and the lowest (least amount of social support) was 12. Spearman and Pearson Correlation Tests are used to determine the relationship between two variables. If the data is parametric, perfectly evenly distributed across all domains, a Spearman Correlation Test would be used to analyze the data. But if the data was skewed, the Pearson Test must be utilized. In this study, the data was positively skewed. Since the average score on the love interview was 55, this sample predominantly had a strong support system, and was not evenly distributed. Since this variable's information was non-parametric, the Pearson Correlation Test was utilized.

Criteria for Significance

To have a significant difference in a Pearson Correlation test, the correlation coefficient needs to be greater than 0.65. If the results are less than 0.54 the relationship is weak. A perfect relationship is equal to 1 and no relationship is equal to 0. SPSS software was used in this study to discover the correlation coefficient. Now that it is understood how that data was collected, and how the question of if there is a relationship between social support, according to C.S. Lewis, and physical therapy, the results will be explored.

Chapter Four: Results

In the first chapter, the importance of a significant relationship between social support and physical therapy was addressed. By understanding the relationship between these variables physical therapists and other health care providers in the nursing home have reason to encourage the families and friends of nursing home residents' to stay in contact with each other. The second chapter went into detail about other research on the topic of health and social support. The majority of the previous studies shared the same view: there is a relationship between social support and health. Previously there have been many different facets that this area has been explored, but not really one that explored explicitly physical therapy in a short-term rehabilitation nursing home setting. At this time, the two research questions were asked:

> RQ 1: Are skilled nursing facility patients able to describe the quality of social support as operationalized by C. S. Lewis' *The Four Loves*?
>
> RQ2: Is there a relationship between skilled nursing facility patients' perception of social support as operationalized by C. S. Lewis' *The Four Loves* and their physical therapy progression or regression?

Chapter three described the interview instrument utilized in this study and how the interview was administered and results were scored. This chapter will review the data collected and how that supports or rejects the null hypothesis of this research. The final chapter will discuss the implications for these findings, limitations from this study, and directions for future research.

Results for Research Question 1

To answer RQ1, an informal interview was given to 36 patients at Deer Creek Rehabilitation Center that were also participating in a physical therapy program. The interview measured social support as operationalized by Lewis' The Four Loves, specifically Affection, Friendship, Eros, and Charity. The results from the informal interview are in Table 1's second column.

Table.1. Subjects' Love Interview Score and difference between initial and final PT MDS score

Pt. #	**Love Score**	**MDS Difference**
3	52	-4
6	22	-2
8	39	-3
9	60	4
10	59	-6
11	56	-10
12	60	-3
13	55	2
14	60	9
16	56	0
20	36	2
21	36	8
22	52	-3
25	51	-1
27	60	0
28	44	1
29	60	1

Results for Research Question 2

To answer RQ2, which focused on comparing patient's perception of social support as operationalized by Lewis' *The Four Loves* to their progression or regression in PT treatment while temporarily living at Deer Creek. To measure the patients progression or regression each patients' initial and final MDS (Minimum Data Score) were determined. The difference between these two numbers is the MDS difference and is in the third column of Table 1.

The two columns in Table 1 was analyzed using SPSS software, and the results are in Table 2. The correlation coefficient was 0.037, which indicates an extremely weak, almost no relationship between a social support system and physical therapy progression and regression (To have a strong relationship, the correlation coefficient must be 0.65, and for a weak relationship is 0.54.). Data from Table 2 was graphed and can be seen in Figure 1. Since there was nearly no relationship between the two variables selected (quantitative measure of social support and MDS PT regression or progression), RQ2 can be answered: Is there a relationship between nursing home patients' perception of social support as operationalized by C.S. Lewis' *The Four Loves* and their PT progression or regression? This research illustrated no relationship between social support and physical therapy.

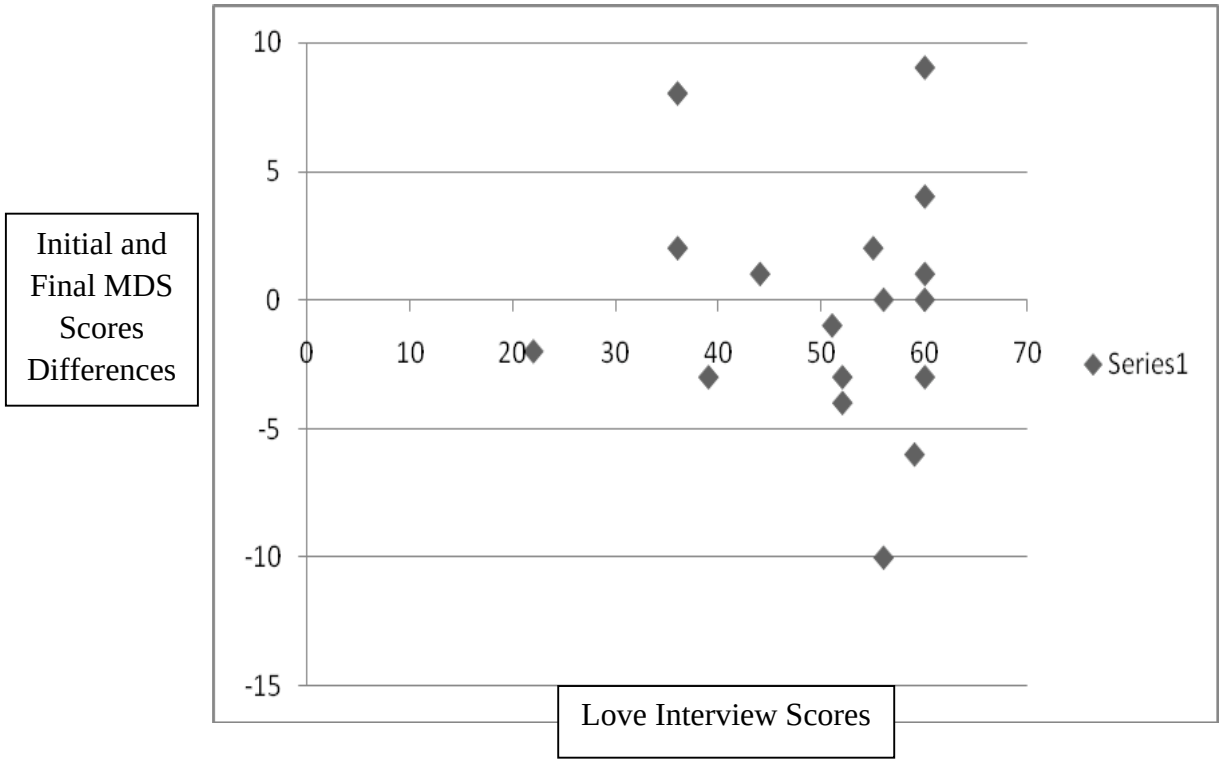
The subsequent chapter discusses how the lack of relationship between social support and physical therapy outcomes can be related to patients at skilled nursing facilities. The low reliability of several measures due to certain factors and implications

of the findings will also be explained. In addition, the next chapter cites limitations of this study and directions for continued research.

Table 2. SPSS table of correlation coefficients between Love Interview Score and MDS differences

			Pt's Quantitative Love Score	Pt's PT MDS Score Difference
Spearman's Rho	Pt's Quantitative Love Score	Correlation Coefficient	1.000	**.037**
		Sign (2-Tailed)	-	.887
		N	17	17
	Pt's PT MDS Score Difference	Correlation Coefficient	**.037**	1.000
		Sig. (2-Tailed)	.887	-
		N	17	17

Figure 1. Love Interview Scores vs. Initial and Final MDS Scores Differences



Chapter Five: Discussion

As the American Baby Boomer generation ages, concerns of the quality of care at skilled nursing facilities increase. Physical therapy programs offered at short-term rehabilitation institutions are important now that it is well-understood in the medical practice that exercise programs appear to have potential to positively affect the overall health, thereby increasing quality of life of healthy years in older adults (Barnhart & Connolly, 2007; Center for Disease Control and Prevention, 1999). The physical therapy profession is concerned with management and prevention of movement disorders and is centered on the key elements of health promotion, prevention, treatment, and rehabilitation (Heinemann, 2007). Since there are many factors that can affect health and physcial therapy progression, one factor will be singled out and explored: social support as operationalized by C.S. Lewis. Lewis' *The Four Loves* is the basis for this research on social support because his haumanistic perspective is unique compared to other research concerning health and social support (Berkman, Glass, Brissette, & Seeman, 2000; Glass, Mendes de Leon, Seeman, & Berkman, 1997; Grundy and Sloggett, 2003; House, Robbins, & Metzner, 1982). Perhaps Lewis' point of view will be helpful to broaden the approach to measure social support in the lives of short-term rehabilitation patients and find if there is a relationship between social support as operationalized by Lewis and physical therapy regression or progression.

In chapter two, several research studies that focused on health and social support, specifically family, friends, and gender, were discussed (House, et al, 1994; Koenig, 2000; Liu, Liang, & Gu, 1995; Richmond, Ross, & Egeland, 2007). A large portion of previous research indicates that there is a relationship between health and social support.

Some studies came to conclusions that a significant amount of social support leads to better health, which means that little social support can cause decreased health (Richmond, Ross, & Egeland, 2007; Berkman, Glass, Brissette, & Seeman, 2000; Liu, Liang, & Gu, 1995). Other studies actually reported that too much social support may lead to decreased health (Hays, Saunders, Flint, Kaplan, & Blazer, 1997; Turner and Marino, 1994). Lewis' *The Four Loves* also focuses on family and friends as social support, but categorizes them into Affection, Friendship, Eros, and Charity. The third chapter explained the methods of research, the subjects, administration of the interview, interview and measures, data analysis, and criteria for significance. Chapter four reported the results. This chapter will discuss the results, limitations of the present study, and implications of the results. Then it will refer to previous research, give directions for future research, and conclude.

Research Questions Revisited

This thesis explored the relationship between social support as operationalized by C.S. Lewis and physical therapy progression or regression in a skilled nursing facility setting. The questions posed were:

> RQ1: Are skilled nursing facility patients able to describe the quality of social support as operationalized by C. S. Lewis' *The Four Loves*?
>
> RQ2: Is there a relationship between skilled nursing facility patients' perception of social support as operationalized by C. S. Lewis' *The Four Loves* and their physical therapy progression or regression?

Discussion of Research Question 1

To answer research question one, the researcher wrote an informal interview guideline (Appendix A), based on *The Four Loves*. This is the first time that social support has been measured in a clinical setting that was operationalized by C. S. Lewis. This is important since it is such a unique perspective of social support. Other research has categorized social support according to social science theories such as: the structural model and the role-specificity model (Glass, Mendes de Leon, Seeman, & Berkman, 1997), and instrumental and emotional support (Liu, Lang, & Gu, 1995).

Even though patients have never been approached about social support in the manner used in this research the subjects were able to communicate their perspective of quality of social support in regards to Affection, Friendship, Eros, and Charity according to C.S. Lewis. This perspective was numbered and given the name "love score." The highest possible love score was 60 and the lowest possible score was 12. The average score for the subjects was actually 55. Thus, the patients were loved and able to express their social support as operationalized by Lewis.

Implications of the Results for Research Question 2

In order to answer research question 2, data from two different sources were collected (subjective perspective of social support as operationalized by Lewis from an informal interview and MDS differences from beginning to end of PT treatment). These results were analyzed using a Pearson Correlation Test and the results indicate that there was no significant relationship between social support and PT progression or regression. The answer to RQ2, which asked if there is a relationship between skilled nursing facility patients' perception of social support as operationalized by C. S. Lewis' *The Four Loves* and their physical therapy progression or regression is no. This research suggests that no

matter how many visitors or phone calls a patient in a short-term rehabilitation center receives, it will not affect their physical performances in regards to physical therapy. Thus, the determining factor of a patient's progression or in PT is not determined by their social support as operationalized by Lewis; it is something else. On average, the subjects' functional activity levels did not get better or worse during the PT treatment, regardless of the amount of social support as operationalized by C.S. Lewis.

These results may be due to lack of reliability of the subjective interview measuring social support, the skewed sample (age and high social support), or the general measures of the MDS. At this time, the researcher would like to add that even though there was not a relationship quantitatively, it was very obvious when interviewing the subjects who had high amounts of social support and love from others.

When conducting the interviews, the researcher took a qualitative mental note about the patients interviewed. The subjects who claimed to be receiving high levels of social support they were full of life. Even though the patients were temporarily taken from their homes and had to participate in therapy programs most of the day, they always had a smile on. Even though social support may not be able to help increase health for the elderly population, love seems to make life much more pleasant and worth waking up for. Perhaps social support as operationalized by Lewis does not affect physical therapy, but it did seem to affect quality of life. More research is needed in order to form a conclusion of the possible relationship between quality of life and physical therapy progression.

Even though this research indicates there is no relationship between social support and physical health, most of the research explored in chapter two disagreed (Richmond,

Ross, & Egeland, 2007; Berkman, Glass, Brissette, & Seeman, 2000; House, Robbins, & Metzner, 1994). Richmond, Ross, & Egeland (2007) stated that the strong paralleled results indicate that social support enhances health. And Berkman, Glass, Brissette, & Seeman (2000) agree that social relationships and affiliation have powerful effects on physical and mental health. To promote health, House, Robbins, & Metzner, (1994) suggests that stress reduction, social relationship strengthening, and self-efficiency must be implemented and enhanced.

The fact that this study reported no relationship between Affection, Friendship, Eros, or Charity indicates that other researchers conducting similar studies came to the same findings: until more is known, including spirituality and social support, in medical practice would be premature because the relationship lacks consistency (Koenig, 2003; Sloan, Bagiella, & Powell, 1999). Before one comes to the conclusion how these results, which indicate that there is no relationship between health and social support, may affect the health care profession, especially at short-term rehabilitation settings, the reliability of measures and limitations must be discussed.

Limitations

This research concerning social support and physical therapy did have many limitations. Even though thirty-four subjects were interviewed to answer RQ1, only seventeen subjects were able to be used to answer RQ1 & RQ2. This is an extremely small sample size. Not only that, but the sample used was skewed. Mostly everyone participating in the study had extremely high amounts of perceived social support as operationalized by Lewis. Also, only thirty-four subjects initially agreed to partake in this interview about friends and family even though about fifty patients were asked to

participate. Since no incentive was given for being interviewed, if someone did not have any friends or family to talk about, he or she usually refused to take part in the research study. The sample was also skewed by age. Since the research was completed with nursing home residents, the population was older than the general population.

This increased age may have lead to the lack of progression or regression in the average MDS score, which was zero. Once a body reaches a certain age, any significant increases in health are rare. Also, the qualifications to be in the study may have been too broad based. The subjects simply needed to be partaking in a PT program at Deer Creek Rehabilitation Center. It did not matter whether he or she was rehabilitating after a stroke, a fall, or a wrist fracture. Thus, in some patients no progression was seen in the MDS because the MDS only calculates the dependency of the patient. For example, a patient with a fractured wrist may be completely independent when entering a nursing home, and scores very high in the bed mobility, transfer, and toilet use category on the MDS. This patient only needs aid in regards to eating and hygiene issues. This patient may not show little or no signs of progression in the MDS scores. The physical therapist's notes on the other hand may state that this patient has progressed tremendously. The therapists' notes were not used in this research due to the inability to easily observe multiple subjects' progression at one time. The simple measurements the MDS results were utilized and became a limitation in this research.

C.S. Lewis' *The Four Loves* was used as the foundation of social support in this research because his perspective is unique and different from other approaches used to measure the relationship between social support and health. His perspective may have actually been a limitation because there were only four categories explored: Affection

(family), Friendship (friends), Eros (significant other), and Charity (a Higher Being). In previous research, social support has expanded past these main four realms (Berkman, Glass, Brissette, & Seeman, 2000; Glass, Mendes de Leon, Seeman, & Berkman, 1997; Richmond, Ross, & Egeland, 2007). Even though there were many limitations, the implications of these results can be important to physical therapy programs at skilled nursing facilities.

The reliability of the variables is also important to understand the research as a whole. The two variables were the love interview score and MDS results. The love interview score was taken from an informal interview written by the researcher concerning social support as operationalized by Lewis' *The Four Loves*. The reliability of these scores is low because they are completely subjective. The answer to each question in the informal interview must have been understood correctly by the subject enough to be answered, and the patient needed to answer in an effective manner to be interpreted by the researcher for a correct score. This variable is not reliable, but is still important because social support is subjective in nature.

The second variable, MDS score differences, are more reliable than the subjective nature of social support, but still has many flaws. A MDS score is given to every patient in a skilled nursing facility. This number is used by insurance companies, Medi-care, and Medi-caid to reimburse facilities for their services. Even though MDS forms are intended to be extremely accurate, they become a limiting factor they only measure general goals: bed mobility, transfer, eating, and toilet use. If a patient does not have difficulty with these four goals, then the patient will not show any progression or

regression. There may be more accurate measures for physical therapy progression in a skilled nursing facility.

Directions for Future Research

It would be easy to expand on this research. First, the qualifications for participants could be narrowed. It would take much more time to only use subjects between the ages of 65 and 75 recovering from hip replacement surgery, but the chances of observing the similar amounts of probable rehabilitation results would be expected. Secondly, this study could even be expanded to an outpatient setting. Maybe it would be best to study the social support according to Lewis with only knee surgeries, which has people of all ages getting corrections or replacements. Thirdly, the interview methods could be improved. Since there was no incentive given, many people chose not to participate in the interview. It seemed that they turned down the opportunity to converse with someone about family and friends because they did not have much to speak of. With an incentive, subjects with all levels of social support would like to participate, and the sample would not be skewed. Fourthly, Even though the MDS is an objective standard to measure PT, it limited the amount of progression or regression a patient could achieve because of its lack of detail. In the future, maybe the use the physical therapists' notes that are in each patient's charts, which are also objective, would be better suited. These notes will be more difficult to quantify, but easier to observe progressions or regressions. Maybe it would be easier to simply state if there was a progression in PT or not. Finally, the patients' quality of life was not measured in this study. For future research, quality of life should be measured along with PT progression or regression and social support as operationalized by Lewis. If it was measured, it is more probable to

observe a relationship between social support and quality of life than social support and PT (because this research did not find any relationship).

Conclusion

In conclusion, seventeen patients at Deer Creek Rehabilitation Center were able to describe the amount of social support as operationalized by Lewis through an informal interview, but there was no relationship between their social support and their progression or regression in their physical therapy treatment according to their MDS results. This may be due to the skewed sample or vague measurement scales. Even though the subjects' quality of life was not measured, it was noted by the researcher that subjects with high love interview scores, had a much happier manner. Generally the other subjects that had low love interview scores seemed depressed and unhappy.

Thus, even though social support as operationalized by Lewis' *The Four Loves* did not have an impact in the patients' PT progression or regression, there did seem to be a direct correlation with increased social support and quality of life. This area of concern does need to be explored with further research though. Since America's older population is getting older for longer periods of time, it is important to understand how their lives, and physical therapy treatment, can be enhanced.

References

Argyle, M. (1992). Benefits produced by supportive social relationships. *In the meaning and measurement of social support*, eds H. O. F. Veiel and U Baumann (13-32). Hemisphere, New York.

Barnhart, R. & Connolly, B. (2007). Aging and down syndrome: Implications for physical therapy. *Physical Therapy*. *87. No. 10*, 1399-1406.

Berkman, L., Glass, T., Brissette, I. & Seeman, T. (2000). From social integration to health: Durkheim in the new millennium. *Social Science & Medicine. 51*, 843-857.

Brady, M.J., Peterman, A.H., Fitchett, G., Mo, M. & Cella, D. (1999). A case for including spirituality in quality of life measurement in oncology. *Psycho-Oncology*. *8*, 417-428.

Brain, Robert (1976). *Friends and lovers*. New York: Basic Books.

Calman, K.C. (1992). The future of the nation's health. *Update. 44*, 709-723.

Cauchon, Dennis. "Senior benefit costs up 24%." (2008, February 14). *USA Today*, p. 1A.

Center for Disease Control and Prevention. Office of Enterprise Communications. Media Relations (July 1996). *Historic surgeon general's report offers new view of moderate physical activity*. Retrieved from March 2, 2008, from http://www.cdc.gov/od/oc/media/pressrel/exerci2.htm

Center for Disease Control and Prevention. National Center for Health Statistics (2007, October 31). *Life expectancy*. Retrieved from March 2, 2008, from http://www.cdc.gov/nchs/fastats/lifexpec.htm

Cotton, S.P., Levine, E.G., Fitzpatrick, C.M., Dold, K.H. & Targ, E. (1999). Exploring the relationship among spiritual well being, quality of life, and psychological adjustment for women with breast cancer. *Psycho-Oncology. 8,* 429-438.

Cramer, Duncan (1998). *Close relationships: The study of love and friendship.* London, New York: Arnold.

Daughtery, C., Fitchett, G., Murphy, P., Peterman, A., Banik, D., & Hlubocky, F. (2005). Trusting God and medicine: Spirituality in advanced cancer patients volunteering for clinical trials of experimental agents. *Psycho-Oncology. 14,* 135-146.

Delaune, M. & Ciolek, C. (2007). Falls in community dwelling older adults: Examination and evaluation. *PT Magazine*. *15. No. 11,* 34-41.

Donovan, O. (2002). *Common objects of love: Moral reflection and the shaping of the community*. Grand Rapids, Michigan: Wm. B. Eerdmans Publishing Co.

Duck, Steve (1983). *Friends for life: The psychology of close relationships.* New York: St. Martin's Press.

Dye, J., Baker, F. & Stein, K. (1999). Spirituality and quality of life in cancer survivors. *Psycho-Oncology. 8,* 59.

Dyer, C., Goodwin, J., Pickens-Pace, S., Burnett, J., & Kelly, P. (2007). Self-neglect among the elderly: A model based on more than 500 patients seen by a geriatric medicine team. *American Journal of Public Health*. *97. Issue 9,* 1671-1676.

Feher, S. & Maly, R.C. (1999). Coping with breast cancer in later life: The role of religious faith. *Psycho-Ontology. 8,* 408-416.

Fehring, R.J., Miller, J.F. & Shaw, C. (1997). Spirituality well being, religiosity, hope, depression, and other mood states in elderly coping with cancer. *Oncol Nurs Forum. 24*, 663-671.

Gabrel, C.S. (2000). Characteristics of elderly nursing home residents and discharges: Data from 1997 national nursing home survey. *Advance Data. 312*, 1-16.

Glass, T., Mendes de Leon, C., Seeman, T. & Berkman, F. (1997). Beyond single indicators of social networks: A Lisrel analysis of social ties among the elderly. *Social Science & Medicine. 44, No. 10,* 1503-1517.

Grundy and Sloggett (2003). Health inequalities in the older population: The role of personal capital, social resources and socio-economic circumstances. *Social Science and Medicine. 56*, 935-947.

Hays, J., Saunders, W., Flint, E., Kaplan, B., & Blazer, D. (1997). Social support and depression as risk factors for loss of physical function in late life. *Aging and Mental Health. Vol. 1. No. 3,* 209-220.

Health, I. (1996). *The mystery of general practice.* London: The Nuffield Provincial Hospitals Trust.

Heinemann, A. (2007). State-of-the-science on post-acute rehabilitation: Setting a research agenda and developing an evidence base for practice and pubic policy-an introduction. *Physical Therapy. 87. No. 11*, 1536-1541.

Hooper, Walter (1996). *C.S. Lewis: A complete guide to his life & works.* Great Britain: Harper Collins Publishers.

Horne, H. (1945). *Shakespeare's philosophy on love.* Raleigh, NC: Edwards & Broughton Company.

House, J.S., Robbins, C. & Metzner, H.L. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh community health study. *American Journal of Epidemiology. 116*, 123-140.

House, J., Lepowski, J., Kinney, A., Mero, R., Kessler, R., & Herzog, A. (1994). The social stratification of aging and health. *Journal of Health and Social Behavior*. *Vol. 35. No. 3*, 213-234.

Inmam-Amos, J., Hendrick, S., Hendrick, C., (1994, October). Love attitudes: Similarities between parents and between parents and children. *Family Relation. 43*, 456-61.

Idler, E.L. & Kasl, S.V. (1992). Religion, disability, depression, and the timing of death. *American Journal of Sociology. 97*, 1052-1079.

Johnson, S.C. & Spilka, B. (1991). Coping with breast cancer: The roles of clergy and faith. *J Relig Health. 30*, 21-33.

Kaczorowski, J.M. (1989). Spiritual well-being and anxiety in adults diagnosed with cancer. *Hosp J . 5*, 105-116.

Koenig, H. (2000). Religion, spirituality, and medicine: Application to clinical practice. *Journal of American Medical Association*. *284*, 1708.

Koenig, H. (2003). Religion, spirituality and health: An American physician's response. *Medical Journal of Australia*. *178. Issue 2*, 51-52.

Koenig, H.G., McCullough, M. & Larson, D.B. (2001). *Handbook of religion and health.* New York, NY: Oxford University Press.

Lewis, C.S. (1960). *The four loves.* New York: Harcourt.

Lindsey, Karen (1982). *Friends as family.* Boston: Beacon Press.

Liu, X., Liang, J. & Gu, G. (1995). Flows of social support and health status among older persons in China. *Social Science & Medicine. 41, No. 8,* 1175-1184.

Mickley, J.R., Soeken, K. & Bechler, A. (1992). Spiritual well-being, religiousness and hope among women with breast cancer. *Image J Nurs Sch. 24*, 267-272.

Murray, S., Kendall, M., Boyd, K., Worth, A., & Benton, F. (2004). Exploring the spiritual needs of people dying of lung cancer or heart failure: A prospective qualitative interview study of patients and their carers. *Palliative Medicine*. *18*, 39-45.

Nygren, A. (1982). *Agape and eros*. Chicago, IL: The University of Chicago Press.

Richmond, C., Ross, N. & Egeland, G. (2007, September). Social support and thriving health: A new approach to understanding the health of indigenous Canadians. *Research and Practice. 97. No. 9,* 1827-1833.

Ries, E. (2007 March). A special place: Physical therapy in hospice and palliative care. *PT Magazine*, *15. No. 3*, 42-47.

Roberts, J.A., Brown, D., Elkins, T. & Larson, D. (1997). Factors influencing views of patients with cancer about end-or-life decisions. *Am J Obstet Gynecol. 176,* 166-172.

Rougemont, D. (1940). *Love in the western world*. New York, NY: Pantheon Books a division of Random House Inc.

Seeman, T. (1996). Social ties and health: The benefits of social integration. *Annals of Epidemiology*. *6. Issue 5*, 442-451.

Silberfarb, P.M. Anderson, K.M., Rundle, A.C., Holland, J.C.B., Cooper, M.R. & McIntyre, O.R. (1991). Mood and clinical status in patients with multiple myeloma. *J Clin Oncol. 9,* 2219-2224.

Sloan, R.P., Bagiella, E., & Powell, T. (1999). Religion, spirituality, and medicine. *The Lancet*. *353. Issue 19153*, 664-667.

Steinhauser, K., Christakis, N, Clipp, E., McNeily, M., McIntyre, L., & Tulsky, J. (2000). Factors considered important at end of life patients, family, physicians, and other care providers. *JAMA. 284,* 2476-2482.

Stewart, A., Teno, J., Patrick, D., & Lynn, J. (1999). The concept of quality of life of dying in the context of health care. *Journal of Health and Social Behavior*, *17,* 93-108.

Stone, R. (1999). Long-term care: coming of age in the 21st century. In R.B. Butler, L.K. Grossman, & M.R. Oberlink. (*Eds*.), *Life in an older America*. (pp.49-73). New York: The Century Foundation Press.

Strawbridge, W.J., Cohen, R.D., Shema, S.J. & Kaplan, G.A. (1997). Frequent attendance at religious services and mortality over 28 years. *AJPH. 87*, 957-961.

Thoits, P.A. (1985). Social support and psychological well-being: Theoretical possibilities. In: Sarason I.G., Sarason B.R., eds. *Social Support: Theory, Research and Applications*. Dordrecht, The Netherlands: Martinas Nijhoff Publishers. 51-72.

Thoits, P.A. (1992). Identify structures and psychological well-being: Gender and marital status comparisons. *Soc Psychol Q. 55,* 236-256.

Thoits, P.A. (1995). Stress, coping and social support processes: Where are we? What next? *J Health Soc Behav. 35,* 53-79.

Turner, R. and Marino, F (1994). Social support and social structure: A descriptive epidemiology. *Journal of Health and Social Behavior. 35,* 193-212.

Verbrugge, Lois M. (1984). Longer life but worsening health? Trends in health and mortality of middle-aged and older persons. *Milbank Memorial Fund Quarterly/Health Society 62. No.3,* 475-519.

Von Hildebrand, Dietrich (1992). *Man and woman: The love and meaning of intimacy.* Manchester, New Hampshire: Sophia Institute Press.

Wadell, Paul J. (1989). *Friendship and the moral life*. Notre Dame, Indiana: University of Notre Dame Press.

Werley, H., Devine, E., & Zorn , C. (December, 1988). Nursing needs its own minimum data set. *American Journal of Nursing*. *88. No. 12,* 1651-1653.

World Health Organization Expert Committee (1990). *Cancer pain relief and palliative care*. Geneva: WHO.

World Health Organization (1998). The World Health Organization Quality of Life Assessment (WHOQOL): Development and general psychometric properties. *Soc Sci Med. 46,* 1569-1585.

Zunzunegui, M., Kone, A., Johri, M., Beland, F., Wolfson, C., & Bergum, H. (2004, May 10). Social networks and self-rated in two French-speaking Canadian community dwelling populations over 65. *Social Sciences and Medicine. 58. Issue 10,* 2069-2081.

Appendix A. Sample of Subject #27's Love Interview

27 Survey Date 10/3/07

Affection:
Tell me about your family… 1 daughter - Oregon
2 g-kids call every day

- Do you feel loved by your family members?

No Mostly No Mostly Yes (Yes)

- If you have children, do you stay in touch with them?

No Mostly No Mostly Yes (Yes)

- Would you choose to be friends with your family, even if you weren't related to them?

No Mostly No Mostly Yes (Yes)

Friendship:
Tell me about your friends…

- Are your friends important to you?

No Mostly No Mostly Yes (Yes)

- Do you keep in touch with your long distant friends?

No Mostly No Mostly Yes (Yes)

- Have you made new friends through activities?

No Mostly No Mostly Yes (Yes)

Eros:
Tell me about your significant other?
Jules 2 years ago - very ill 45years

- Are you "in love" with your significant other?

No Mostly No Mostly Yes (Yes)

- Are you and your significant other capable of sharing thoughts and feelings with each other?

No Mostly No Mostly Yes (Yes)

- Do you often think of when you first met your significant other?

No Mostly No Mostly Yes (Yes) Vet Tx

- Are you happy with your significant other?

No Mostly No Mostly Yes (Yes)

Appendix A. Continued. Sample of Subject #27's Love Interview.

Charity:
Do you attend church?...which one?…
used to - Chapel in the Hills

- Is God a major influence in your life?

No Mostly No Mostly Yes Yes

- Do you pray often?

No Mostly No Mostly Yes Yes

- Do you think that your life is controlled by God?

No Mostly No Mostly Yes Yes

Would you go to church

Which do you love the most?
- Family
- Friends
- Significant Other
- God

Appendix B. Sample of Subject #27's Initial MDS Form

Resident [redacted] 27 Numeric Identifier 7121 9/20/07

SECTION S. TEXAS SPECIFIC ITEMS

Activities of Daily Living

(A) SELF-PERFORMANCE provided in the facility 60% of the time over the last 30 days.
0. INDEPENDENT--No help or oversight provided.
1. SUPERVISION--Oversight, encouragement, cueing.
2. LIMITED ASSISTANCE--Resident highly involved; received physical , guided maneuvering of limbs or other nonweight-bearing assistance.
3. EXTENSIVE ASSISTANCE--Resident performed part of activity, but help of the following type was provided: 60% of time weight-bearing support or full staff performance during part, but not all, of last 30 days.
4. TOTAL DEPENDENCE--Full staff performance during entire 30 days.
8. ACTIVITY DID NOT OCCUR

(B) SUPPORT provided in the facility 60% of the time over the last 30 days.
0. No setup or physical help from staff
1. Setup help only
2. One person physical assist
3. Two+ persons physical assist
8. ADL activity itself did not occur during entire 7 days

		(A)	(B)
S.1	BED MOBILITY-- How resident moves to and from lying position, turns side-to-side, positions while in bed.	2	2
S.2	TRANSFER -- How resident moves between surfaces-to and from: bed, chair, wheelchair, standing position (EXCLUDE: to and from bath and toilet).	2	2
S.3	EATING -- How resident eats and drinks (regardless of skill). includes intake of nourishment by other means (e.g., tube feeding, total parenteral nutrition).	0	1
S.4	TOILET USE -- How resident uses the toilet room (or commode, bedpan, urinal); transfer on/off toilet, cleanses, changes pad, manages ostomy, catheter, adjusts clothes.	2	2

S.5	PRIMARY SOURCE OF NUTRITION -- Primary source (60%) of nutrition calorically over last 30 days is enteral or parenteral. 0. No 1. Yes	0
S.6	TERMINAL ILLNESS -- Six month terminal prognosis per physician. 0. No 1. Yes	0

Rehabilitation -- Enter number of days of rehabilitation received over the last 30 days (excluding skilled therapy services for wound care, inting, position ing, or staff training).

(A) PHYSICAL THERAPY (B) OCCUPATIONAL THERAPY		(A)	(B)
S.7	How many days was skilled therapy (for at least 15 minutes per day) received in the last 30 days?	6	5

Items S.8 through S.12 -- Enter the number of days of restorative care provided (15 minutes or more per day) following a skilled therapist's written plan.

		(A)	(B)
S.8	Training and skill practice in BED MOBILITY.	0	0
S.9	Training and skill practice in TRANSFER.	0	0
S.10	Training and skill practice in WALKING.	0	0
S.11	Training and skill practice in DRESSING or GROOMING.	0	0
S.12	Training and skill practice in EATING or SWALLOWING.	0	0

TDHS USE ONLY

CASEMIX (1)	(2)

Health Status Problems

S.13	SEIZURES (one or more) -- Check only if occurred and treated in facility during the last 30 days.	
S.14	DEHYDRATION -- Check only if acute, symptomatic and treated during the last 30 days.	
S.15	URINARY TRACT INFECTION -- Check only if acute, symptomatic and treated during the last 30 days.	
S.16	AMPUTATION -- Resident has had an amputation of a limb within the last 6 months. 0. No 1. Yes	0
S.17	QUADRIPLEGIA WITH EXTENSIVE ASSISTANCE -- Neurologic disorder causing paralysis of all four extremities, with Self-Performance of 3 or 4 in S1, S2, and S4. 0. No 1. Yes	0

Therapeutic Interventions

(A) FREQUENCY OF INTERVENTIONS during the last 14 days.
0. Not Receiving
1. Less than Daily
2. Once a Day
3. Two Times a Day
4. Three or More Times a Day
5. Continuously 6-23 Hours
6. Continuously Throughout the Day

(B) NUMBER OF DAYS TREATMENT received in last 14 days.

		(A)	(B)
S.18	INTAKE and OUTPUT (Analysis of I/O).	0	0
S.19	BLADDER REHAB (individualized plan to regain bladder control and continence).	0	0
S.20	WOUND DRESSINGS (Applied to an open wound).	0	0
S.21	DECUBITUS CARE (Code only for treatments of Stage III or IV).	0	0
S.22	SUCTIONING (Oral, nasal, tracheal).	0	0
S.23	TRACHEOSTOMY CARE (Exclude self care).	0	0
S.24	OXYGEN ADMINISTRATION	0	0
S.25	RESPIRATORY THERAPY	0	0
S.26	VENTILATOR or RESPIRATOR	0	0

Behavior Status -- Check only behaviors during the last 30 days that required immediate staff intervention on a daily basis.

S.27	WANDERING (Oblivious to needs or safety).	
S.28	VERBAL AGGRESSION	
S.29	PHYSICAL AGGRESSION	
S.30	SOCIALLY INAPPROPRIATE / DISRUPTIVE	

I CERTIFY that, to the best of my knowledge, the above information is true and correct.

DON Name	License No.
BERT BUEGELER	669747
Signature -- DON	Date
	09/20/2007
FNA Name	License No.
MARY SAWEY	125552
Signature -- FNA	Date
	09/20/2007

MDS 2.0 September, 2000

Appendix C. Sample of Subject #27's Final MDS Form

10/02/07

Resident [redacted] 27 Numeric Identifier 7121

SECTION S. TEXAS SPECIFIC ITEMS

Activities of Daily Living

(A) SELF-PERFORMANCE provided in the facility 60% of the time over the last 30 days.
0. INDEPENDENT--No help or oversight provided.
1. SUPERVISION--Oversight, encouragement, cueing.
2. LIMITED ASSISTANCE--Resident highly involved; received physical , guided maneuvering of limbs or other nonweight-bearing assistance.
3. EXTENSIVE ASSISTANCE--Resident performed part of activity, but help of the following type was provided: 60% of time weight-bearing support or full staff performance during part, but not all, of last 30 days.
4. TOTAL DEPENDENCE--Full staff performance during entire 30 days.
8. ACTIVITY DID NOT OCCUR

(B) SUPPORT provided in the facility 60% of the time over the last 30 days.
0. No setup or physical help from staff
1. Setup help only
2. One person physical assist
3. Two+ persons physical assist
8. ADL activity itself did not occur during entire 7 days

		(A)	(B)
S.1	BED MOBILITY-- How resident moves to and from lying position, turns side-to-side, positions while in bed.	2	2
S.2	TRANSFER -- How resident moves between surfaces-to and from: bed, chair, wheelchair, standing position (EXCLUDE: to and from bath and toilet).	3	2
S.3	EATING -- How resident eats and drinks (regardless of skill). includes intake of nourishment by other means (e.g., tube feeding, total parenteral nutrition).	0	0
S.4	TOILET USE -- How resident uses the toilet room (or commode, bedpan, urinal); transfer on/off toilet, cleanses, changes pad, manages ostomy, catheter, adjusts clothes.	2	2

S.5	PRIMARY SOURCE OF NUTRITION -- Primary source (60%) of nutrition calorically over last 30 days is enteral or parenteral.	0. No	1. Yes	0
S.6	TERMINAL ILLNESS -- Six month terminal prognosis per physician.	0. No	1. Yes	0

Rehabilitation -- Enter number of days of rehabilitation received over the last 30 days (excluding skilled therapy services for wound care, inting, position ing, or staff training).

(A) PHYSICAL THERAPY (B) OCCUPATIONAL THERAPY		(A)	(B)
S.7	How many days was skilled therapy (for at least 15 minutes per day) received in the last 30 days?	10	9

Items S.8 through S.12 -- Enter the number of days of restorative care provided (15 minutes or more per day) following a skilled therapist's written plan.

		(A)	(B)
S.8	Training and skill practice in BED MOBILITY.	0	0
S.9	Training and skill practice in TRANSFER.	0	0
S.10	Training and skill practice in WALKING.	0	0
S.11	Training and skill practice in DRESSING or GROOMING.	0	0
S.12	Training and skill practice in EATING or SWALLOWING.	0	0

TDHS USE ONLY

CASEMIX (1)	(2)

Health Status Problems

S.13	SEIZURES (one or more) -- Check only if occurred and treated in facility during the last 30 days.	
S.14	DEHYDRATION -- Check only if acute, symptomatic and treated during the last 30 days.	
S.15	URINARY TRACT INFECTION -- Check only if acute, symptomatic and treated during the last 30 days.	
S.16	AMPUTATION -- Resident has had an amputation of a limb within the last 6 months. 0. No 1. Yes	0
S.17	QUADRIPLEGIA WITH EXTENSIVE ASSISTANCE -- Neurologic disorder causing paralysis of all four extremities, with Self-Performance of 3 or 4 in S1, S2, and S4. 0. No 1. Yes	0

Therapeutic Interventions

(A) FREQUENCY OF INTERVENTIONS during the last 14 days.
0. Not Receiving
1. Less than Daily
2. Once a Day
3. Two Times a Day
4. Three or More Times a Day
5. Continuously 6-23 Hours
6. Continuously Throughout the Day

(B) NUMBER OF DAYS TREATMENT received in last 14 days.		(A)	(B)
S.18	INTAKE and OUTPUT (Analysis of I/O).	0	0
S.19	BLADDER REHAB (individualized plan to regain bladder control and continence).	0	0
S.20	WOUND DRESSINGS (Applied to an open wound).	0	0
S.21	DECUBITUS CARE (Code only for treatments of Stage III or IV).	0	0
S.22	SUCTIONING (Oral, nasal, tracheal).	0	0
S.23	TRACHEOSTOMY CARE (Exclude self care).	0	0
S.24	OXYGEN ADMINISTRATION	0	0
S.25	RESPIRATORY THERAPY	0	0
S.26	VENTILATOR or RESPIRATOR	0	0

Behavior Status -- Check only behaviors during the last 30 days that required immediate staff intervention on a daily basis.

S.27	WANDERING (Oblivious to needs or safety).	
S.28	VERBAL AGGRESSION	
S.29	PHYSICAL AGGRESSION	
S.30	SOCIALLY INAPPROPRIATE / DISRUPTIVE	

I CERTIFY that, to the best of my knowledge, the above information is true and correct.

DON Name	License No.
BERT BUEGELER	669747
Signature -- DON	Date
	10/01/2007

FNA Name	License No.
MARY SAWEY	125552
Signature -- FNA	Date
Mary Sawey	10/01/2007

MDS 2.0 September, 2000