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**WHAT REALLY IS THE DIFFERENCE BETWEEN OCCUPATIONAL THERAPY  
AND PHYSICAL THERAPY IN A SKILLED NURSING FACILITY**

**BY**

**LAURYN MORELL  
BS, University of New Hampshire, 1989**

**THESIS**

**Submitted to the University of New Hampshire  
in Partial Fulfillment of  
the Requirements for the Degree of**

**Master of Science**

**In**

**Occupational Therapy**

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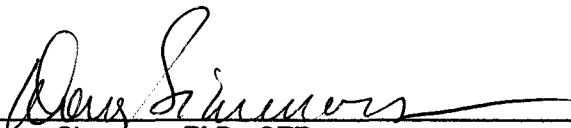
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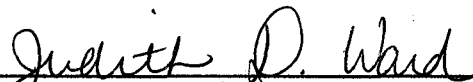
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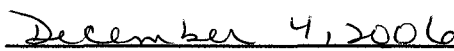
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**Date**

## DEDICATION

The successful completion of this project was in part due to the support and guidance of many people. This thesis is dedicated to my parents, Roger and Mildred Morell and sisters, Suzan Linehan and Caren Morell, for encouraging me to continue beyond the barriers that arose until I completed this undertaking, for showing me the benefits and doors that would open upon completion, and for their consistent words of support. It is also dedicated to my boyfriend, Michael Murphy, who encouraged me onward on a daily basis and who ensured I had delicious home cooked meals for daily nourishment. This is also dedicated to my thesis advisor, Lou Ann Griswold, who was always ready to forage forward every time I showed up at her office. Lastly, this thesis is dedicated to all of the occupational therapy practitioners who have encountered this question or something similar from their clients: "I already have physical therapy. I have occupational therapy too? What is the difference?" I hope these results will help with your answer.

## FOREWORD

I have had 17 years of experience in a variety of areas of occupational therapy such as inpatient rehabilitation, outpatient rehabilitation, work hardening, acute care, skilled nursing rehabilitation, Alzheimer units, long term care, and home care. There is one common thread that I noticed throughout the different settings: a lack of knowledge or awareness of the difference between occupational and physical therapy. Initially, when a client receives both occupational and physical therapy, no matter the setting, I hear the same question: "What is the difference?" I am getting used to explaining the difference in a variety of ways to enhance clients' understanding. It bothers me however, that this question has also been asked of me by coworkers who were nurses, doctors, and social workers, as well as third party payers. These people are our referral base. If the client doesn't know the difference, and the referring party doesn't know the difference, and the reimbursing party doesn't know the difference, then occupational and physical therapy are in trouble of being mistaken for the same practice. Occupational therapists seem to be the only ones who know what we do and even within the profession there seems to be some disagreement.

This became very problematic back in the late nineties when Medicare reimbursement guidelines changed. I saw occupational therapy referrals decrease significantly where I was employed. I also heard of many other occupational therapists having the same problem. Soon after that many

occupational therapists I knew were being laid off, and then it was my turn. For just under a half a year I worked seven different per diem positions and had to collect unemployment in order to maintain an income high enough to afford the basics. Occupational therapy positions in skilled nursing facilities with the elderly were once plentiful, now they were scarce. This change happened over the course of just a few months in New Hampshire.

The most distressful point of this change I noticed was the lack of service the client received. Without occupational and physical therapy working together to achieve a client's goals something could be overlooked, recovery could take longer, intervention could not be as successful, the client would return for services with related or continued problems seeking more intervention. The medical insurance company would then be paying for more in the future. I have seen the combination of occupational and physical therapy have a positive synergistic effect where one enhances the other for maximum results. What client would not want this approach to enhance their possibilities of wellness? What insurance company would not want this maximum restoration of function and health for their client to decrease susceptibility to future function and/or health related problems and thus future claims? What doctor, nurse, social worker, or therapist would not want to see their client return successfully to wellness? What family member would not want to see the most effective, efficient recovery after watching their parent, spouse, sibling, child or other suffer from an illness, injury, or other disability? The people who do not advocate for this winning combination of occupational and physical therapy are those who do

not realize the difference between the two disciplines or the effect of the use of them together. This unfortunately appears to be a large number of people. This is precisely the impetus that facilitated the identification of the hypothesis and research topic for my thesis.



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**ABSTRACT****WHAT REALLY IS THE DIFFERENCE BETWEEN OCCUPATIONAL THERAPY  
AND PHYSICAL THERAPY IN A SKILLED NURSING FACILITY**

by

**Lauryn Morell****University of New Hampshire, December, 2006**

**Insurance reimbursement guidelines have changed the way allied health services are delivered. The onset of the Prospective Payment System (PPS) reorganized financing for therapy services. Instead of basing reimbursement on each individual case, finances are based on diagnostic and case mix groupings and regulate expected service needs. This has forced both occupational and physical therapy to vie for the same reimbursement monies.**

**Cross training occupational and physical therapists was suggested as a means of cost containment. Downsizing rehabilitation departments was actually performed to minimize costs. These drastic responses to reimbursement changes in the health care field were also coupled with a documented lack of consumer knowledge regarding the respective roles of occupational and physical therapy. These concepts together illustrated the need for occupational therapy to clearly stake claim to their domain in the future of health care.**

**This study, qualitative and phenomenological in nature addressed the roles of occupational and physical therapy in a skilled nursing facility. Through the use of a case study, semi-structured interviews regarding clinical reasoning**

were conducted with three occupational and three physical therapists working in five different skilled nursing facilities. The aim was to truly understand the therapists' perceptions of their own and each others' roles. Using the constant comparative method from grounded theory, the data was analyzed and categorized and themes were identified for each profession, which were then compared and contrasted.

The results showed unique histories, philosophies, types of clinical reasoning, and foci of intervention for each profession. These themes uncovered clearly outlined differences between the two professions. Professional boundaries separating the two professions were consistently identified with each interviewee.

The results of this research could aid in the future understanding of the role of occupational therapy. It could aid in solidifying occupational therapy's claim to their intervention domain. It could also clarify, to the potential consumer and the potential reimbursing insurance company, the role of occupational therapy in a client's recovery from disability.

## INTRODUCTION

The Balanced Budget Act (BBA) of 1997 was designed by congress to balance the federal budget by the year 2002 and on August 5, 1997 it was signed into law by President Bill Clinton (Strazela, 1998). Due to the detection of an average increase in Medicare A spending of 28.8% annually in the years between 1992 and 1996, one portion of the BBA, Title IV, was developed to decrease Medicare expenditure (Duchene, 1998). The U. S. Department of Health and Human Services (2003) defines Medicare as the federal health insurance program for citizens over the age of 65 and certain younger people with disabilities. Medicare A is the part of Medicare that covers hospice care, home health care, skilled nursing facility care, and inpatient hospital stays (U.S. Department of Health and Human Services, 2003). The expected outcome of Title IV was the reduction in Medicare spending by 115 billion dollars over a five year period (Duchene, 1998). The primary plan of action to meet this goal was the new prospective payment system (PPS). This system involved many regulation changes effective as of 01/01/1998, which have greatly affected the financial reimbursement rendered by Medicare A for medical services provided specifically in skilled nursing facilities (Strazella, 1998). Skilled nursing facilities (SNFs) are residential facilities that provide professional skilled nursing care around the clock usually along with rehabilitation. They differ from acute rehabilitation units in the intensity and frequency of therapy provided offering less

intensive rehabilitation to clients. Older adult clients at times benefit from services provided at a SNF where therapy is less intense than in acute rehabilitation.

### **The Impact of the Prospective Payment System**

Medicare related reimbursement changes and the onset of PPS created a changing health care environment focused on cost containment (U. S. Department of Health and Human Services, 2003 & 2006). Medical institutions have been forced to make drastic changes and resort to resource adjustments, cost cutting, and fund re-allotment to survive (Wynn, 1997). These changes dramatically impacted the environment of allied health care service delivery (Foto, 1998a). The narrow focus on cost put great pressure on occupational and physical therapy to demonstrate that each discipline provided an efficient, effective and unique service (Shapiro, 1998; Steib, 1998; Yerxa, 1995).

Currently, Medicare is the major reimbursement source for the rehabilitation services rendered in SNFs across the USA (Duchene, 1998; U. S. Department of Health and Human Services, 2006). Under PPS, the Medicare funding guidelines in SNF's changed from a fee for service plan, where reimbursement was retrospective and per service, to a situation where a facility receives a prospective payment per client per diem (U. S. Department of Health and Human Services, 2006). Under previous funding guidelines a facility would receive additional financial compensation when utilizing additional professional allied health services such as occupational therapy and physical therapy. Under the current system, the all inclusive rate for a client with a certain



diagnosis/prognosis is predetermined based on the minimum data set (MDS) rating and the facility does not receive reimbursement per service provided (U.S. Department of Health and Human Services, 2006).

The MDS is a traditional rating system used as a guide to identify a client's deficits and thus assist with forecasting his or her needs. The client is evaluated by all appropriate professionals over the course of five days beginning with the day of admission to the SNF. The evaluation results gathered over those five days identify the client's needs and ascribe a rating to the client. Within this rating system specific scores correspond to a specific resource utilization group (RUG) category. This category is what determines the amount of financial reimbursement for caring for that client. This includes specifying the number of minutes of therapy per week and any equipment needs for which a client will be insured. These needs, based on the five day assessment period are projected for the course of up to 14 to 30 days (APTA, 1998; Duchene, 1998).

Due to the all inclusive nature of PPS reimbursement, if not properly identified during the first five days of admission, the more therapies used to provide rehabilitation services, the more costly the treatment can be to the facility. This forced SNF administration to look at providing care at the least cost in an effort to stay afloat as a business. In order to avoid bankruptcy SNF facilities employed cost cutting principles to avoid over spending. Thus in effect, the choices for the type of service provided as well as for the frequency and duration of service provided were narrow, restricted, and basically directed by

financing rules and profit margin for the business (Anonymous, 1997; Foto, 1998a; Steib, 1998).

These cost cutting efforts threatened the continued, complementary coexistence of occupational and physical therapy in this setting. A significant number of SNFs redesigned their rehabilitation departments to comply with the funding guidelines in order to remain in business (Steib, 1998). SNFs which once had large, active rehabilitation departments including occupational, physical, and speech therapists cut the number of therapists in half or down to one third of the original size (Carlucci, 1999). Despite having the same number of clients, the staff was downsized based on the amount of financial reimbursement (Carlucci, 1999). Many SNFs also resorted to an increased use of rehabilitation aides and occupational and physical therapy assistants. Some SNFs even suggested cross training or using just one discipline to provide a holistic approach that a team of two to three disciplines had provided in the past (Yerxa, 1995). These were all business tactics that SNFs resorted to for financial survival.

### **The Implications for Occupational and Physical Therapy**

Doctors, nurses, insurance companies, and other referring individuals and agencies are now, more than ever being forced to make referral decisions based on financial grounds. Referrals are generated for those services proven to be cost efficient, outcome effective, and unique or void of duplication (Carlucci, 1999; Hartmann, 1998; Steib, 1998). Without knowledge of the distinction between occupational and physical therapy, utilization of these services could be

inappropriate and/or imbalanced resulting in a possible high negative impact on the therapy services available in SNFs (Carlucci, 1999; Foto, 1998b; Kielhofner, 1992; Schenck, 1970; Steib, 1998).

Poor attempts to illustrate the difference between occupational and physical therapy compound the problem above, add to the lack of awareness, and put both occupational therapy and physical therapy at further future risk. Attempts to differentiate the two professions are inconsistent. Explanations offered include that occupational therapy, not physical therapy, is able to treat the psychiatric client or psychosocial dysfunction and occupational therapy, not physical therapy, is distinguished by a client centered focus (Peake, 1971). Other attempts differentiate between the two professions based on the type of body function addressed: Occupational therapy focuses on fine motor control and physical therapy on gross motor control (McGiffin, 1976); or that OT works with the upper extremity and PT with the lower extremity (Schenck, 1970). However credible these explanations, they do not hold true between healthcare settings, towns, or even states (Peake, 1971; Schenck, 1970; McGiffin, 1976; Meyer, Little, & Buser, 1976). There is confusion portrayed in comparing the Occupational Therapy Practice Framework (OTPF) (AOTA, 2002) and The Guide for Physical Therapy Practice (The Guide) (APTA, 1997) as they respectively depict that each discipline addresses skills related to ADLs, transfers, and mobility. This confusion regarding the roles of OT and PT as well as the distinction between the two disciplines threatens the uniqueness and unity of each profession and in effect may actually result in costly duplication of

services provided.

Adding to confusion about the boundaries between the two professions, physical therapists have also shown confusion in attempts at distinguishing their own roles in relation to occupational therapy roles (McGiffin, 1976; Meyer, Little, & Buser, 1976; Schenck, 1970). McGiffin (1976) recognized that physical therapy had been the sole provider of ultra sound and electrical stimulation modalities while Moffat noted (1996) that physical therapy was noted for treatment in a water medium. More recently, physical therapy identified that it also focuses on function (APTA, 1997). However, these are not distinctions between occupational therapy and physical therapy. Occupational therapy is also known to provide ultrasound and electrical stimulation and for acknowledging function as it is imbedded in occupation (Anson, Hammel, McGuire, Pedretti, Reen, & Smith, 1992; Flaherty, Fontane, Hazboun, Konosky, Licht, Nelson, Newer, & Webb, 1996).

During this period of role confusion, Amory (1996) claimed that occupational therapists lack a clear sense of identity and professional pride. These problems are apparent in the inconsistent use of professional terminology in descriptions of not only occupational therapy treatment media, but also descriptions of the actual core elements and uniqueness of occupational therapy itself (Golledge, 1998a). The core elements or uniqueness of occupational therapy have been vaguely explained using a mixture of divergent terms including activity, purposeful activity, meaningful activity, constructive activity, holism, and occupation itself (Golledge, 1998a).

The obvious presence of ambiguity surrounding the explanations of the core elements and uniqueness of occupational therapy practice has fragmented the profession into a cluster of "loosely related specialties" (Gillette & Kielhofner, 1979). This fragmentation has clouded the thread of unity within the profession and has led to a misperception of occupational therapy as a duplication of physical therapy (McGiffin, 1976; Meyer, Little, Buser, 1976; Peake, 1971; Schenck, 1970; Wynn, 1997).

Despite attempts at distinguishing the unique roles of occupational therapy from physical therapy, ambiguity remains and is reflected in the comments and opinions of general practitioners, healthcare managers, third party payers, other professionals, and consumers (Chakravorty 1993; Greenhill, 1994; Kielhofner, 1992; Pringle, 1996). Consumers and recipients of occupational therapy themselves are not aware of what occupational therapy offers, even after receiving services. Jongbloed (1990) found that sixteen out of twenty stroke victims did not understand why they received occupational therapy services. McAvoy (1992) reported that out of 75 persons receiving occupational therapy, many viewed their therapist as unskilled technicians. Yerxa (1995) reported that Grice, a doctor and director of public health representing the National Health Services thought occupational and physical therapy were similar and actually proposed a merge of occupational and physical therapy into a single rehabilitation specialist. O'Neill (1993), in the Pew Health Professions Commissions Report, identified recommendations for the allied health professions including changing the education to allow for a unified degree with a

minor in occupational therapy for example. O'Neill (1993) also recommended cross training or multi-skilling allied health workers in this Pew report. Yerxa (1995) also found others suggesting cross training of the two disciplines including state legislatures, APTA, American Hospital Association, and the Florida Hospital Association. Wood (1998a) found that two different reporters writing for a business journal in Youngstown, Ohio interviewed and observed occupational therapists and physical therapists and each time, although about three years apart, concluded both fields to be indistinguishable. In fact the later attempt by the second journalist revealed that the physical therapist interviewed saw no difference between the two professions either and suggested the two fields should be merged. These skewed perceptions of occupational therapy enforced the perceived lack of distinction between the two disciplines, even by physical therapists. Occupational therapy as a profession needs to first be united in an effort to claim a distinct domain to ensure it is a unique profession without duplication of services (Kielhofner, 1992; Schenck, 1970; Shapiro, 1998; Yerxa, 1995).

Occupational therapy is a profession covering a broad area that is not clearly defined and readily acknowledged or assimilated within traditional medical settings. The core of occupational therapy has been fragmented and misunderstood by external medical and financial cultures. The uniqueness of occupational therapy has faded and been distorted, making it difficult to distinguish the profession from physical therapy. Without professional unity, and now under the cost cutting influence of PPS, occupational therapy seems

especially vulnerable as a service in the SNF environment. It appears as though occupational therapy is struggling to maintain its autonomy and identity as a critically necessary health profession within a SNF environment.

### **The Purpose of This Study**

While both occupational and physical therapy have published many studies on the effectiveness of different aspects of their respective services, not many have been published that compare occupational and physical therapy in a SNF and contrast the services offered. Such a study, noting the unique aspects of each discipline would be a valuable influence on the decisions regarding financial reimbursement of both occupational and physical therapy as well as to the future inclusion of both therapies to health care recipients.

The purpose of this research study was to uncover the differences between occupational therapy and physical therapy in a SNF setting. This study will further clarify the unique role of occupational therapy and thus justify its continued important existence with physical therapy on the SNF rehabilitation team, despite the need for drastic cost containment. Furthermore, the ability to substitute one therapy in place of another as a cost containment measure will be rendered highly undesirable due to the significant differences between disciplines.

This aims of this study were as follows below:

- To delineate the foci of intervention respective to each therapy
- To further identify and outline any boundaries between the two disciplines

**and clarify overlap**

- **To determine if occupation is indeed the focus and core belief of occupational therapy**
- **To determine if occupation is indeed the uniqueness of occupational therapy especially in comparison to physical therapy**
- **To provide occupational therapy practitioners with distinguishing factors to verbalize the profession's unique qualities to consumers, peers, health care team members, and reimbursement agencies**



## CHAPTER I

### THE HISTORY AND PHILOSOPHY OF OCCUPATIONAL AND PHYSICAL THERAPY

One way to distinguish the difference between the professions is to look at literature outlining history and philosophy . Investigating the roots illuminated that each profession originated, grew, and developed along different pathways. Investigating the philosophies of each profession also further supported differences between the two pathways. The following is a review of the literature findings.

#### Occupational Therapy History

Historical traces of the use of occupation as therapy can be found as far back as Ancient Egypt where a connection was made between participation in activity and recovery from sickness (Gritzer & Arluke, 1985). The roots of occupational therapy in Northern America and Europe, as noted by Kielhofner and Nicol (1989) can be traced back to the moral treatment period of the 17<sup>th</sup> and 18<sup>th</sup> centuries. The concepts inherent in moral treatment were used as a basis for many of the original concepts of occupational therapy. For example it was believed that participation in various tasks and events of everyday life would promote the restoration of normal functioning (Kielhofner & Nicol, 1989; Meyer, 1922). Moral treatment therapists used normal daily routines of activity to bring

patients back into productive and satisfying participation in their social milieu (Kielhofner, 1992; Meyer, 1922).

Using the principle of moral treatment, in 1882, Dunton began using occupation as a substitution for restraints. Later these tactics lead to “employment of the insane” approaches to help abate dysfunctional symptoms (Gritzer & Arluke, 1985; Meyer, 1922). Meyer (1922), in 1893, began having psychiatric patients participate in meaningful and gratifying activities for successful treatment of their symptoms. Meyer’s belief was that these patients needed opportunities to engage in activities to improve their self esteem and self fulfillment. He believed, this in turn, would increase function (Engelhardt, 1985; Law, Baum, & Dunn, 2001; Meyer, 1922). The ultimate goal of engagement in activities used in these earlier treatment approaches was to facilitate participation in daily life occupations (Kielhofner & Nicol, 1989; Kielhofner 1992; Meyer, 1922).

These historical traces of occupational therapy illuminate the importance of the positive effects that engagement in activity has on mental illness. After the Civil War however, “work” or engagement in meaningful productive occupation or activity was recognized as important treatment for not only mental illnesses but physical dysfunctions as well (Gritzer & Arluke, 1985). In 1914, Barton, an architect who acquired tuberculosis, discovered that participation in manual activity helped improve his physical function. Furthermore, Barton read a book written by Dunton, regarding occupation and its influence on recovery. Barton and Dunton then joined efforts to start a school dedicated to the promotion of

this shared concept and belief that engagement in occupation can influence both mental and physical health (Gritzer & Arluke, 1985). In 1917, Dunton and Barton went on to form the National Association for the Promotion of Occupational Therapy (now known as the American Occupational Therapy Association - AOTA) (Gritzer & Arluke, 1985; Kielhofner, 1992). The purpose of this association, lead by Barton as president, was to promote the use of occupation as therapy and study its effects upon human beings and to also disseminate knowledge collected on this subject (Gritzer & Arluke, 1985).

Eleanor Clarke Slagle was also a very strong influence during these beginning stages of occupational therapy. She was a social worker who took a course about occupations in 1908 (Loomis, 1992). She applied this learning experience while working with clients with mental illness where she taught them to use their muscles and minds together during games, exercise, and handicrafts to facilitate recovery. She also introduced the idea of habit training to encourage people with mental illness to return to health promoting daily routines and tasks (Loomis, 1992). This mode of intervention became so popular that clients with either physical or mental illness were admitted to the State Mental Hospital for this treatment. Slagle became the head and director of the Henry B. Faville School of Occupations in 1915. Some students in this program were reconstruction aids who were trained in the use of occupation.

The first reconstruction aids were trained in New York City in 1918 under the direction of the Surgeon General at Lenox School through summer coursework. Most who were occupational therapy reconstruction aids were at

least high school graduates if not college graduates and had to be at least 25 years old. Their training prepared them to furnish occupation in the form of simple handicrafts: weaving, modeling, toy making, wood carving, basketry, block printing, simple metal work, and book binding (Low, 1992). The goals of their service at this time included the opportunity for the soldiers to express themselves and forget the negative aspects of the war and their injury or illness. Goals also included a focus on improving muscle strength and to facilitate physical restoration (Hanson & Walker, 1992). Occupational therapy reconstruction aides stressed the combination of the mind and the body working together to achieve reconstruction of orthopedic and psychiatric clients (Quiroga, 1995).

In 1921 with World War I and the industrial revolution, occupational therapists and reconstruction aids who were trained in the use of occupation treated people with cognitive, psychological, and physical impairments resulting from wartime, auto, and machinery related accidents and injuries (Hopkins, 1983; Low, 1992). In 1923 occupational therapy was recognized by the American Medical Association as a special medical activity and an integral part of medicine and surgery (Gritzer & Arluke, 1985). By 1924, during the polio epidemic occupational therapists held a prevalent role in the treatment of polio related paralysis to enable patients to participate in work, school, play, and other daily occupations such as self care (Cohen & Reed, 1996; Hanson & Walker, 1992). Occupational therapists were employed in industrial and curative workshops to facilitate ill and injured clients' engagement in physical and mental

tasks in preparation for return to work. By WWII occupational therapists were designing therapeutic programs including a client's hobbies, incorporating the person's interests and simultaneously benefiting the client's condition blending mind and body (Hanson & Walker, 1992).

In reviewing the early history of occupational therapy it is clear the primary intervention goal remains the same despite differing diagnoses, diseases, and impairments: To promote engagement in everyday occupation. The value and use of occupation, incorporating components of mind and body, as intervention also remains a constant attribute of occupational therapy throughout the years.

### **Occupational Therapy Philosophy**

AOTA (2002) publicized the Occupational Therapy Practice Framework (OTPF) which emphasized three philosophical themes. First was the focus on occupation (Fisher, 1998; Golledge, 1998a,b; Kielhofner, 1992; Kielhofner & Nicol, 1989; Meyer, 1922; Wood, 1996; Wood, 1998; . A second theme was the profession's emphasis on the client as the center of occupational therapy intervention (Fisher, 1998; Law, 1998; Law, Baptiste, & Mills, 1995; Pollock, 1993; Wood, 1996). The third theme was the holistic nature of occupational therapy intervention (Burton, 1989; Foto, 1998c; Kielhofner, 1992; Kielhofner & Nicol, 1989). All three themes related to one another, with the second and third supporting occupation. When occupational therapists focus on a client's occupations they remain client centered by addressing what is important to the client (Law, 1998; Pollock, 1993). A holistic approach is enabled because occupational therapists address a myriad of occupational interests a client might

have, any barriers to performance of the occupations, and continue to consider the client's individual illness experience. Each theme will be explored for further understanding.

Occupation is a source of personal meaning and identity and is a healing force. The profession's history and philosophy reflect this belief on many accounts in literature. Occupations are the activities people do in life that have purpose and meaning to those performing them (AOTA, 2002; Hinojosa, Pedretti, & Sabari, 1993; Law, Steinwender, & LeClair, 1998). Engagement in an occupation gives a person enjoyment, personal satisfaction, a sense of fulfillment and ultimately defines each person's identity (AOTA, 2002). The consistent nature of the presence of this unique occupational theme in the literature is what distinguishes occupational therapy from physical therapy. In fact, Kielhofner and Nicol (1989) actually defined occupational therapy as the science of healing by occupation. Occupational therapy affects health by facilitating, enhancing, and encouraging participation in purposeful activity, or occupations. Through participation, people are able to influence their psychological, emotional, and skill development as well as enhance a sense of competence and positively influence well-being and life satisfaction (Grady, 1992; Law, 2002; Nelson, 1997). Occupational therapy practitioners' expertise lies in the knowledge of occupation and its influence on health and well-being (AOTA, 2002).

The nature of occupation also embodies two important beliefs included in the philosophy of occupational therapy. Client centered intervention and holism

are both inherent in occupational therapy practice because of the use and focus on occupation. A client centered approach is naturally emphasized in occupational therapy because of the personal nature of occupations themselves. This approach is valued not only for the occupationally related benefits but also for improved client adherence to recommendations, improved client satisfaction, and improved functional outcomes (Fisher, 1998; Law, 1998; Law, Baptiste, & Mills, 1995; Pollock, 1993; Wood, 1996).

Each client, or if unable the client's family, at times facilitated by the occupational therapist, identifies occupations that are uniquely and personally meaningful and motivating. The client then identifies the problematic occupations and activities, expresses related concerns. These occupations in which the client desires to participate then become the focus of occupational therapy intervention. The intervention and evaluation process is based on the client's priorities and goals uncovered and not on the disease or diagnosis (AOTA, 2002; Law, 1998; Law, Baptiste, & Mills, 1995). Throughout occupational therapy intervention, clients and therapists carry on a collaborative relationship where the client continues to share his or her priorities and goals and the therapist shares knowledge about disease, disability, and occupation (AOTA, 2002; Fisher, 1998; Law, 1998). The occupational therapist uses occupations during intervention to affect change, based on the individual client's values, beliefs, and motives as well as his or her capabilities (AOTA, 2002; Fisher, 1998; Law, 1998). The therapist and client collaboratively direct progress toward the client's goals, keeping in mind the client's priorities (AOTA, 1998;

Law, 1998).

Just as occupation is client centered, it is also holistic as it is concerned with the mind and body united in performing occupations within context(s). Occupation incorporates not only a client's physical performance of the activity but also cognitive, psychosocial, and contextual aspects as well (AOTA, 2002; Burton, 1989; Foto, 1998c; Kielhofner, 1992; Kielhofner & Nicol, 1989). Occupation includes both subjective (emotional or psychological) and objective (physically observable) aspects related to performance of activities of importance to the client (AOTA, 2002). Occupation also includes the context(s) in which it is performed (Burton, 1989; Foto, 1998c; Kielhofner, 1992; Kielhofner & Nicol, 1989). These can include the cultural, physical, social, personal, spiritual, temporal, and virtual environmental influences surrounding the occupation (AOTA, 2002; Fisher, 1998). Occupational therapy is not only concerned with occupational performance problems and their impact on the client's life but also the meaning that these problems may hold for the individual client (AOTA, 2002; Law, 1998). A client dealing with occupational performance problems is also dealing with disruptions in previous habits, routines, and daily life. Occupational therapy emphasizes not only the client's actual performance of occupations but also the impact on the client's ability to fulfill daily role demands to his / her own level of satisfaction.

### **Summary**

In looking at the history of occupational therapy it is apparent that occupational therapy has risen from psychiatric roots. However its usefulness



was noted and quickly applied to improve physical conditions as well. It is also evident that throughout the history of occupational therapy, the philosophy and main goal of facilitating participation in occupation has been the common core. It is through this focus on occupation that occupational therapy also emphasizes holistic and client centered intervention, which has in turn correlated with an emphasis on the impact of context(s). Although time and culture may have changed the occupational activities themselves, the underlying philosophy regarding the health benefits of participation in occupation as intervention and outcome remains constant.

### **Physical Therapy History**

According to Gritzer and Arluke (1985), the roots of physical therapy can be traced back to the late 1800's to early 1900's. Physical therapy acquired its beginnings in this time period during a decline in the acceptance and the use of electricity for healing. In 1902, due to this decline, electrotherapy practitioners began including other modalities such as hot air, water, and eventually massage as healing agents. These modalities were grouped together and categorized as "externally applied physical agents" (Gritzer and Arluke, 1985, p.28). From this, the term "physical therapeutic or therapies" was coined by Dr. William B. Snow (Gritzer & Arluke, 1985). Snow was a pioneer in physical therapy, well renowned in electrotherapeutics and in the use of radiant light and heat (New York Times, 1930). The previously known electrotherapeutics then began to call themselves "physiotherapists" (Gritzer and Arluke, 1985). Simultaneously, with the start of WWI, orthopedic surgeons trained reconstruction aids for the treatment of joint

and muscle conditions (Gritzer and Arluke, 1985). Physical therapy reconstruction aides primarily studied physical education, physical exercise, and massage and largely emphasized body motion in practice (Gritzer & Arluke, 1985).

Later in 1921, physiotherapists and the previously described reconstruction aides trained by orthopedic surgeons merged and laid claim to specialization in the application of muscle re-education and physical agents such as heat, water, massage, and electricity to treat joint and muscle conditions (Gritzer and Arluke, 1985; Moffat, 1996). Due to the era with WWI and the industrial revolution, the primary focus was on the treatment of physical wartime injuries and physical deficits resulting from auto and industrial machinery accidents. In 1921, Mary Macmillan became one of the founders of physical therapy intervention in the United States and the American Women's Physical Therapeutic Association (AWPTA) was developed with a charter membership category for reconstruction aides (Moffat, 1996). This Association later became the American Physical Therapy Association (APTA) that is currently known today (Moffat, 1996). Some qualifying criteria for membership in the AWPTA included: Completion of recognized training programs for physical therapy or physical education, training and experience in massage and therapeutic exercises, and some knowledge of either electrotherapy or hydrotherapy (Moffat, 1996). In 1924, physical therapists treated people who had contracted polio. The primary focus of intervention was the restoration of physical performance and related skills. By 1928 standards for physical therapy education programs reflecting the

historical physical focus and physical agent emphasis were developed and enforced. Snow wrote the first text of a complete work of physical therapy published in 1931 (The New York Times, 1930). Subsequently, Snow's son, followed his father and continued expanding the delivery of physical therapy services to include underwater exercise for all joints of the body in a tank with hydro massage turbines that Snow himself designed (New York Times, 1940).

### **Physical Therapy Philosophy**

The American Physical Therapy Association (APTA) (1997) recently published the Guide to Physical Therapy Practice (The Guide) . This document provides information to describe physical therapy practice, standardize terminology, and delineate preferred practice patterns of intervention (APTA, 1997). In 2003, Goodman, Fuller, & Boissonnault edited a textbook on pathology. Their book claimed to reflect and apply the terminology and principles of the Guide. Review of these two prominent documents reveals two philosophical themes for physical therapy. One theme was physical therapy's consistent concern with function. The second theme was related to a focus on the benefits of therapeutic exercise as the primary method of intervention in physical therapy.

The APTA (1997) claimed physical therapy practice has moved beyond the framework of the medical model of disease. APTA, (1997) and Goodman, Fuller, and Boissonnault (2003) indicated that treatment of the diagnosis or related pathology is no longer emphasized in physical therapy. They maintained that instead, understanding the disease pathology and medical diagnosis

reaches beyond the medical model and extends the focus to the resultant limitations in function (APTA, 1997; Goodman, Fuller, & Boissonnault, 2003). These functional limitations are defined in the Guide (1997) as the inability of a person to efficiently and competently perform physical actions, activities or tasks. The Guide (1997) pointed out that understanding the precipitating pathological factors facilitates a physical therapist to identify and understand the limits to a client's ability to physically perform and function. This knowledge about how pathology limits a person's physical performance and information about related functional limitations is then intended to provide a basis for clinical decision making in physical therapy (Goodman, Fuller, & Boissonnault, 2003). According to the Guide (1997) the physical therapist then classifies each client into disorder related groupings based on the pathology. This is done in an effort to choose the most effective interventions with maximum outcomes and also to determine a more accurate prognosis about the benefits of physical therapy (APTA, 1997; Goodman, Fuller, & Boissonnault, 2003).

The Guide (APTA, 1997) identified physical therapists as experts in the analysis of human movement, performance, and function. APTA (1997) stated the primary purpose of physical therapy is to promote health and function through a focus on assessing, identifying, preventing, correcting, or alleviating functional limitations resulting from acute or prolonged movement dysfunction.

Physical therapy is provided to clients who are unable to perform required physical actions thus limiting function and engagement within age, gender, or sex-specific roles in the social and physical environment (APTA, 1997). Physical

therapy specifically addresses clients with musculoskeletal, neuromuscular, cardiopulmonary, and integument disorders that impair physical function (APTA, 1997). The Guide (APTA, 1997) states the ultimate goal of physical therapy intervention is optimal physical function. This is achieved through decreasing or alleviating pain, by preventing the changes in physical function and health status that limit function and lead to increased impairment and disability, and through encouraging overall fitness that further promotes health and optimal quality of life (APTA, 1997).

This brings about the second theme detected in the literature review regarding physical therapy philosophy. Physical therapy considers therapeutic exercise as a first line of defense and primary intervention for many conditions and diseases (Goodman, Fuller, & Boissonnault, 2003). In fact the Guide stated the primary mode of physical therapy intervention to achieve optimal physical function, no matter the precluding disorder, is therapeutic exercise (APTA, 1997). Physical therapy values the importance of exercise and physical activity to improve functional capacity, independence, health, and thus quality of life (APTA, 1997; Goodman, Fuller & Boissonnault, 2003). Ogiwara (2003) stated that the major component of physical therapy in Japan is the concern with mobility that is achieved through exercise therapy.

Clinical decisions regarding the choices of which therapeutic exercises to use in intervention, the related precautions to follow with exercising, and whether or not vital signs need to be monitored with exercises are all clinical decisions made during intervention. These decisions are directed by the knowledge of

pathological factors that limit a client's physical function (Goodman, Fuller, & Boissonnault, 2003). Further clinical decisions regarding the duration, frequency, and intensity of the intervention as well as if any other methods of intervention are to be added to the treatment plan are all based on the knowledge about pathology (Goodman, Fuller, & Boissonnault, 2003).

### **Summary**

The review of history illuminates the emergence of physical therapy as its own discipline from the historical roots of physical agent use to affect physical recovery for most optimal functioning. The philosophy, although difficult to locate ample literature, mirrors this historical theme with a consistent focus on physical function. Recent prominent documents of the profession indicated that physical therapy has shifted away from a medical model and now emphasizes the importance of physical performance, based on knowledge of diagnosis and pathology, and how it influences function. Current physical therapy practice also emphasizes the benefits of therapeutic exercise as not only an addition to the historical physical modes of intervention, but as the primary mode of intervention.

### **Comparative Summary**

In comparison, occupational therapy and physical therapy emerged as professions at roughly the same time period yet arose from very different roots and philosophies. Occupational therapy's history is laden with stories of the psychological and physical benefits of occupation. Occupational therapists emphasize and utilize the connection and interplay between mind, body, and context(s) in performance of occupations. Occupational therapy also believes

and utilizes the healing effects of occupation as the primary mode of intervention. Ogiwara (2003), a physical therapist conducted research regarding the different roles of occupational therapy and physical therapy in Japan and found the role of occupational therapy was to deal with the client's life skills in his/her life situation within the context of the local community.

Physical therapy's history is detailed with information regarding the healing benefits of applying physical interventions such as heat, water, and electricity, as well as more presently the application of therapeutic exercise. Physical therapy emphasizes and utilizes a focus on the connection between pathology and related limitations of physical performance that result in impaired function. Physical therapists believe and utilize the healing effects of therapeutic exercise as the primary mode of intervention. Ogiwara (2003) found the role of physical therapy in Japan to be primarily biomechanical or musculoskeletal. Thus the role of physical therapy in the United States and Japan seem similar in nature, addressing physical limitations based on a disease process.

To ensure this study reflects current practice, the literature was reviewed in further detail to obtain a clearer picture of these different philosophies when actually applied. A closer look was taken at both occupational therapy and physical therapy evaluation as well as intervention processes. This was accomplished by again using the two comparable documents one from each discipline, the Occupation Therapy Practice Framework and the Guide for Physical Therapy. Each document specifically delineates the respective discipline's process and focus for evaluation and intervention.

## CHAPTER II

### OCCUPATIONAL THERAPY AND PHYSICAL THERAPY EVALUATION AND INTERVENTION

In 2002 AOTA published the Occupational Therapy Practice Framework (OTPF) as a reference for clinical practice. The OTPF describes the domain or area of practice and in doing so delineates boundaries for the occupational therapy profession. It also outlines and details the process of evaluation and intervention, the approaches to intervention, the types of intervention, and the types of expected outcomes from intervention (AOTA, 2002).

In 1997 APTA published the Guide to Physical Therapy Practice (The Guide) as the first step toward the development of clinical guidelines. The Guide begins to define the domain and describe the scope of physical therapy practice. It contains detailed information regarding the preferred practice patterns that outline common strategies used by physical therapists to manage intervention with selected patient diagnostic groups. The patterns are not intended to be clinical paths but instead the boundaries within which a physical therapist could select clinical paths. The Guide also reviews the process of evaluation and intervention, types of intervention, and types of expected outcomes commonly found with physical therapy patient/client management (APTA, 1997).



### **Occupational Therapy Evaluation and Intervention**

The OTPF (AOTA, 2006) reflects previous literature regarding history and philosophy as it emphasizes a focus on occupation throughout the entire evaluation and intervention process. In this document, evaluation consists of two steps: Developing an occupational profile and analyzing occupational performance. The occupational profile centers on the client's perspective and identifies the client's needs and concerns, priorities, and desired goal(s). The occupational profile information is gathered by using formal assessment tools or through formal and informal interview and casual conversation regarding occupational performance problems. The occupational profile includes an account of the client's values and interests, successful and unsuccessful occupational performance experiences, and patterns of performance. It is also a record of context(s) in which the client's occupations were performed. The identified context(s) are further categorized as supporting or inhibiting performance. The occupational profile is developed with the client to identify the client's perception of what occupations are problematic and to identify the client's assumptions of the barriers and if they are performance, contextual, or task related (AOTA, 2002).

The specific problematic occupations identified in the occupational profile one may be further scrutinized in the next step of evaluation process: analysis of occupational performance. Occupational performance is carrying out meaningful, purposeful activities to further engage in occupations. Successful occupational performance is achieved through a favorable interplay of the client

performing the activity, the activity itself, and the context in which it is performed. The result is accomplishment of the selected activity AOTA, 2002; Fisher, 1998).

Analysis of this performance takes place with an observation of the client performing the particular problematic occupations as identified in the occupational profile within a natural context or simulated context. The occupational therapist notes the client's skills and patterns of performance and identifies specific barriers and supports of performance. If needed continued in-depth investigation is focused on any aspect of the client factors (body functions, body structure), the activity itself and its demands, as well as the context in which the activity is performed. The goal of this analysis is to identify and further uncover and specify the factors that support and / or those that hinder the successful interplay between the client, the activity, and the context AOTA, 2002).

Occupational therapy intervention also focuses on occupation in the OTPF (AOTA, 2002). Successful intervention is achieved by facilitating a favorable change in occupational performance. This change is accomplished by using occupation, or activities meaningful to the client, to affect change in a client's body functions and structures, performance skills, activity demands, contextual factors, and/or performance patterns. Intervention may focus on any one or more of these areas and a change in one may further affect the others. Therefore with occupational therapy intervention, continual reassessment and readjustment is required to capture the changes and their effects on occupational performance.

The OTPF identifies four types of interventions that can be used alone or in combination; occupational activity, therapeutic use of self, education, and consultation. Occupational activity is the primary therapeutic intervention chosen to affect change in performance. There are three related levels of occupational activity: preparatory activity, purposeful activity, and occupation based activity. Preparatory activities are used to prepare the client for purposeful occupation based activity. Stretching or strengthening are examples of preparatory activities. Purposeful activities or goal directed activities or tasks, are used to eventually lead to performance of an occupation. Examples include reaching for cones to simulate reaching for clothes in the closet, or stacking blocks to simulate putting away groceries, or putting pegs in a pegboard overhead to simulate job related demands. Occupation based activities are used to allow clients the opportunity to engage in actual occupational activities, such as cooking a favorite dessert or crocheting a baby afghan. In addition to occupational activities, intervention also includes the therapeutic use of self where the practitioner therapeutically influences the intervention through the use of his or her own personality and/or past experiences. An occupational therapist uses him/herself as a therapeutic modality when using humor appropriately with a client or using a soft voice and touch to denote empathy and understanding.

Two other types of intervention include education and consultation (AOTA, 2002). Education involves imparting knowledge to the client regarding occupational activities and performance as it relates to health and well-being. Consultation involves not only sharing knowledge regarding occupation but also

engaging in problem solving and devising possible solutions with the client regarding occupational activity problems. Then, on his or her own, the client performs the occupational activities as directed, utilizing the information gained from the consultation process.

The expected outcome of all types of occupational therapy intervention is “engagement in occupation to further support participation in context or contexts“, or in life situations (AOTA, 2002, p. 611). This outcome is valued for its influence on well being and health. AOTA acknowledged the assumption that successful performance of relevant activities leads to engagement in related occupations and allows one to participate in needed or desired home, school, work, and leisure contexts. Furthermore successful occupational performance facilitates fulfillment of role demands and promotes a sense of accomplishment in life situations, thus fostering well being and health (AOTA, 2002).

The OTPF (AOTA, 2002) reflects an emphasis on occupation throughout the evaluation and intervention process as well as the expected outcome. This also mirrors the emerging themes found in the literature review of OT’s history and philosophy. This focus is exemplary of occupational therapy and is the unique core of the discipline.

### **Physical Therapy Evaluation and Intervention**

Information regarding the evaluation and intervention in the Guide (APTA, 1997) reflects the previous findings in physical therapy philosophy and somewhat of history as it emphasizes a focus on physical performance as well as therapeutic exercise as a primary intervention. It also highlights the ultimate

expected outcome of optimal physical function.

This document describes the initiation process of physical therapy in three steps: examination, evaluation, and diagnosis. These three steps are used to determine the relationship between impairments, functional limitations, and disability for each specific client. Functional limitations, as described previously, include the inability to physically perform physical actions, activities, and tasks. Impairments are the pathological reasons for limited function and are caused by a physiological, psychological, or anatomical loss or abnormality. These impairments are organized into four groups in the Guide (APTA, 1997): musculoskeletal, neuromuscular, cardiopulmonary, and integument. Disability is the lack of engagement in roles within the environment due to functional limitations, caused by impairments related to pathology. This reflects the importance, as described in the philosophy, of understanding pathology. A client is classified within one or more of these groups listed above according to the pathology and resultant limitations to physical functioning. The examination and evaluation process helps to individualize the intervention listed in the preferred practice pattern related to the classification (APTA, 1997).

The two initial steps in the process, examination and evaluation, help to identify the impairments and understand their severity (APTA, 1997). This information is then used to identify a physical therapy related diagnosis which then allows the therapist to classify the client into a diagnostic group and refer to the preferred practice patterns to assist in the choice of an intervention that will in some manner counteract the disablement process. These practice patterns are

used to facilitate a systematic approach to patient/client management.

According to the Guide (APTA, 1997), during the physical therapy examination, step, the physical therapist gathers a history, performs a relevant systems review, and applies tests and measures. This step is performed in an effort to understand how the disease or disorder and related pathology are presenting for a particular client. These three steps of the examination identify how pathology has affected the functioning of which or a combination of which specific body systems: muscular, neuromuscular, cardiopulmonary, integument. The tests and measures in the examination further identify the specifics of what effects of which body systems have actually limited physical performance or function and how the physical performance is limited. The examination is an account of the specific contributions to the client's impairment and the specific resultant physical functional limitations.

The Guide (APTA, 1997) details the information the physical therapist should gather for client history. The history is generally obtained through the client, family, significant other, caregivers, any others involved in the client's care, and the medical record. The information recorded includes general demographics; social, occupational, family, medical history; prior functional status, activity, and physical fitness level; living environment; growth and development; history of current condition; current medications, labs, nutrition and hydration status; current health status and habits. This information gives the physical therapist an idea of the client before the onset of the current condition as well as helps to determine the severity of the physical functional limitation

when compared to previous level of physical function (APTA, 1997). This record also helps to identify previous pathology that may have contributed to the current condition (APTA, 1997).

The Guide (APTA, 1997), notes that the systems review is brief and used to obtain more information about general health to guide physical therapy intervention and identify any need for additional health care provider referrals. Based on findings from the history and systems review, and based on the pathology, specific tests and measures are then selected to be carried out with the client's participation.

The tests and measures are selected to assess physical status, gauge client's responses, and more clearly identify the physical therapy diagnosis and impairment grouping with its related practice pattern (APTA, 1997). These tests and measures generally focus on body function and are listed in the Guide as follows: aerobic capacity and endurance; anthropometric characteristics; arousal, attention, and cognition; assistive and adaptive devices; community and work integration or reintegration; cranial nerve integrity; environmental, home, and work barriers; ergonomics and body mechanics; gait, locomotion, and balance; integument integrity; joint integrity and mobility; motor function; muscle performance; neuromotor development and sensory integration; orthotic, protective, and supportive devices; pain; posture; prosthetic requirements; range of motion; reflex integrity; self care and home management; sensory integrity; ventilation, respiration, and circulation. Additional tests and measures not listed may also be chosen as needed (APTA, 1997). The Guide (APTA, 1997) notes

that the results of these tests and measures help to more clearly understand the impact or effect of the pathology and related impairments on the client's body systems.

Physical therapy evaluation, step two of the intervention process is the assimilation of the history taken, the results of the systems review, and the results of the tests and measures (APTA, 1997). All of these variables help guide clinical decisions. Comparison between these results assists in determining the level of impairment, functional limitation, and disability and possible chronicity. The analysis also helps to recommend the potential living environment, discharge destination, and social supports that may be needed upon discharge from physical therapy services.

The examination and evaluation data is organized into clusters, syndromes, or categories. This is step three, the diagnosis. These diagnostic groups include four categories musculoskeletal, neuromuscular, cardiopulmonary, and integument (APTA, 1997). Any client may belong to one or more of the diagnostic groups depending upon the pathology and body systems affected. For example, a client with a hip replacement would belong to the musculoskeletal diagnostic group and be further specified to preferred practice pattern I, a subcategory of this diagnostic group comprising of clients with functional limitations secondary to joint arthroplasty with total or partial resurfacing of the joint (APTA, 1997).

These preferred practice patterns include descriptions of related commonly used examination, evaluation, diagnosis and prognosis, interventions,



re-examination, outcomes, criteria for discharge, and primary prevention strategies as applicable. Identification and correlation of each client to a diagnostic group assists in defining intervention strategies, prognosis, and outcomes because each diagnostic group is coordinated with a related physical therapy preferred practice pattern (APTA, 1997).

Direct physical therapy intervention correlates with the preferred practice patterns within the diagnostic groups in the Guide (APTA, 1997). Therapeutic exercise is listed in the Guide as the most preferred intervention across all four diagnostic groups and subsets of practice patterns. It is the most commonly selected direct intervention in physical therapy. The APTA Guide, (1997) specifically lists what consists of therapeutic exercise as the following: aerobic endurance activities; aquatic exercise; balance and coordination training; body mechanics and ergonomics training; breathing exercises and ventilatory muscle training; breathing strategies; conditioning and reconditioning; developmental activities training; gait, locomotion, and balance training; motor function (re)training; neuromuscular (re)education; neuromuscular relaxation, inhibition and facilitation; perceptual training; posture awareness training; sensory (re)training.

Two other types of commonly used interventions include functional training in ADLs and IADLs and functional training in community and work integration and reintegration. According to the Guide (APTA, 1997), these interventions specifically include training in bed mobility, transfers, gait, locomotion, developmental activity, dressing, grooming, bathing, eating, toileting,

assistive and adaptive devices or equipment, self-care or home management task adaptation, shopping, cooking, home chores, heavy household chores, money management, driving a care or using public transportation, structured play for infants and children, leisure and play activity, organized functional training programs (back school, simulated environments and tasks), orthotic, protective, or supportive device or equipment, ergonomic stressor reduction, injury prevention or reduction, job coaching, job simulation.

These three types of direct interventions, therapeutic exercise, functional ADL and IADL training, and functional community and work (re)integration, in order or preference make up the core of most plans of care for physical therapy. Other direct interventions listed as less commonly used by physical therapy practitioners, also in order of preference include: functional training in community and work (re)integration; manual therapy techniques; prescription, application, and as appropriate fabrication of devices and equipment; electrotherapeutic modalities; physical agents and mechanical modalities. Other types of interventions, although listed as not commonly used include: adapt the environment and facilitate adls or iadls; airway clearance techniques; wound management (APTA, 1997).

The client's psychological and cognitive levels are also considered during the intervention stage of the process. This information is gathered during the history, systems review, and tests and measures. Physical therapy relates psychological distress to the loss of control over one's body leading to fear and anxiety. The more severely a body system is impaired, the greater the loss of

control and the more psychological distress the client will likely be experiencing. Also, psychological symptoms accompany some medical diagnoses such as myocardial infarction and organic brain syndrome. These psychological and cognitive limitations may not affect the diagnostic grouping or preferred practice pattern, but may necessitate some adaptation or compensation to intervention delivery. For example, a client with a cognitive problem may need a written exercise program to maximize the intervention benefit (APTA, 1997).

APTA (1997) stated the overall goal, in physical therapy of these types of direct interventions is to improve physical function and thus improve a client's health status. The preferred practice patterns assist in determining if the client's desired outcomes are realistic and further offer more likely outcomes given the client's diagnosis. Specific goals listed in the Guide (APTA, 1997) are similar with all direct intervention. One goal is increased ability to perform physical tasks related to self-care, home management, community and work (re)integration, or leisure activities. The remaining goals all address body capacity such as increased aerobic capacity, improved airway clearance, and decreased pain, or addressed body function such as increased endurance, improved gait, locomotion, and balance, increased strength, power, and endurance, and improved physical function and health status. The Guide (APTA, 1997) states the overall outcome of physical therapy intervention is the remediation of functional limitation and disability, the optimization of patient / client satisfaction, and prevention of disease or decreasing duration or severity of illness, disease, and sequelae.

### **Summary**

Physical therapy follows an intervention procedure of gathering information, using tests and measures to identify current status, and then classifies their clients into one or more of four different groupings. These physical therapy diagnostic groupings are reflective of pathology but also consider the related physical limitations to function. Each diagnostic grouping has multiple related preferred practice patterns. The most commonly chosen direct intervention, as listed in The Guide (APTA, 1997), for all practice patterns, is therapeutic exercise. Other preferred interventions include functional training in ADLs, IADLs and community and work activities. The approach of intervention delivery may be adapted to compensate for cognitive or psychological impairments but these symptoms generally do not affect the choice of grouping or pattern.

### **Comparative Summary**

Review of the literature explaining occupational therapy and physical therapy evaluation and intervention outlined various differences between the two disciplines. Occupational therapy emphasizes occupation as well as the client's interpretation of occupational dysfunction or loss of occupational performance throughout evaluation and intervention. Occupational therapy looks for more information from the client's past, the client's likes/dislikes, values, personal perception of needs and uses this information to identify what to target in intervention. Occupational therapy intervention focuses on making changes in the client's occupational performance. This might be done by enhancing the

client's body functions, modifying task demands, and/or altering the environment to positively affect the performance outcome.

Physical therapy emphasizes a physical focus on function throughout the evaluation and intervention process working toward an outcome of improved physical function. Physical therapy uses knowledge of pathology along with examination and evaluation results to categorize clients into groupings with related intervention patterns. Physical therapy intervention focuses on making changes in the client's body functions, mainly through the use of therapeutic exercise, to attain goals and positively affect outcomes.

The evaluation and intervention portions of occupational therapy and physical therapy also appear to share areas of similarity. Despite the two different focuses of occupational performance and physical performance of function, both professions claim to focus on areas of ADL, IADL, and community and work related performance. However, it is indicated, when reviewing the OTPF (AOTA, 2002) and the Guide (APTA, 1997) that occupational therapy has more of a primary focus on observing the client perform these tasks for evaluation and having clients perform these tasks during intervention. Physical therapy focuses evaluation more on body systems and uses exercise during intervention to affect body systems which will in turn improve physical performance of these types of tasks (ADL, IADL, community and work related performance). The lack of clarity regarding the professional boundaries within the areas of evaluation and intervention lead to a review of further literature explaining the clinical reasoning used during intervention.

## CHAPTER III

### CLINICAL REASONING

After reviewing the official guiding documents of each profession, it became apparent that occupational therapy and physical therapy sessions could, at times, look very similar when observed. An example of this misconception involves the use of function in physical therapy, during intervention. An observer would not necessarily see the difference between function in a physical therapy treatment and occupation in an occupational therapy treatment. The observer may misinterpret the use of occupation as function because, without speaking with the participant or occupational therapist, the observer would not be aware of the meaning and purpose involved in the occupational tasks being observed and this in part is what differentiates occupation from function. Another misunderstanding that services are duplicated may correlate to the utilization of adjunctive methods in occupational therapy, such as therapeutic exercise, and occupational preparatory activities because upon first observation they closely resemble the use of these same interventions by physical therapy as a primary means of treatment. Mere observation of these particular treatments would lead to a conclusion that occupational therapy and physical therapy are redundant.

Examining the clinical reasoning of each of the two respective therapists might indicate the differences and unique aspects of what, on the surface,

appears to be very similar. Therefore in an attempt to differentiate between the two disciplines, this literature review includes an additional focus on clinical reasoning to uncover the information that lies behind the decisions that each type of therapist makes.

### **The Medical Field**

In the medical field, clinical reasoning is a mode of thinking used to make decisions during clinical practice (Higgs & Jones, 2000). It is the ability to identify significant variables in a given clinical situation, choose an appropriate reasoning strategy that matches those variables, and in effect, take the wisest action for the best outcome within that specific context (Higgs & Jones, 2000).

Physicians use clinical reasoning to identify medical diagnoses (Elstein & Schwartz, 2000). This process involves gathering biomedical cues (IE: a client history, symptoms) pertaining to the client's current condition and developing a list of hypothetical diagnoses (Elstein & Schwartz, 2000). The cues are then rearranged, regrouped, and prioritized until the hypotheses are narrowed down to one diagnosis with the related symptoms that correlate with those presented by the client (Elstein & Schwartz, 2000).

Once the diagnosis is found, a possible evaluation and treatment route will also be found. In medical science, a practitioner can find a variety of general treatment routes that correlate with a general diagnosis that have been shown to be effective (Mattingly & Fleming, 1994; Elstein & Schwartz, 2000). Since the diagnosis, and thus recommended evaluation and treatment intervention relies heavily upon the identification and grouping or categorization of cues, this

process of gathering and categorizing will highly affect the diagnosis identification (APTA, 1997). Therefore, the selection, and arrangement of these cues is of primary importance in choosing the most appropriate diagnosis and most effective and efficient treatment route (APTA, 1997; Hayes & Adams, 2000). Elstein & Schwartz (2000) named this process and type of clinical reasoning diagnostic reasoning. Mattingly and Fleming (1994) labeled it a combination of scientific and procedural reasoning when performed by occupational therapists. Elstein & Schwartz (2000) and Mattingly & Fleming (1994) agree that this form of clinical reasoning relies on the knowledge of general laws of science and medicine that outline diseases according to the related general symptoms and outline treatment options that correlate with each disease (Elstein & Schwartz, 2000; Mattingly & Fleming, 1994).

Benner, Tanner, and Chelsea (1997) describe clinical reasoning for nursing and label these decision making skills as clinical judgment. Clinical judgment in nursing is the search among multiple perspectives for the best knowledge that when put into action as an intervention within a given context, affects the best outcome. Clinical reasoning in nursing differs from that of the physicians as nurses use their reasoning skills to identify pertinent patient data to make decisions in an effort to accomplish the treatment plan for each patient. Nursing clinical reasoning resembles the clinical reasoning used by physicians due to its procedural nature. Fonteyn and Ritter (2000) describe the process of nurses' clinical reasoning in a sequence of steps as the ability to choose and understand significant data, use that data to identify nursing diagnoses, or



problems, and then make decisions based on choosing the best intervention to attain the most positive patient outcome.

### **Occupational Therapy**

Occupational therapists also apply traditional medical or procedural clinical reasoning skills. However, Fleming (1991b) found that occupational therapists add other types of reasoning to the intervention process as well. Mattingly and Fleming (1994) examined clinical reasoning in occupational therapy and identified four types of reasoning: procedural (as described earlier), narrative, interactive, and conditional. They found that the latter three hold much more weight in the occupational therapy intervention process than the procedural type. Procedural reasoning pertains to a client's physical ailments, narrative pertains to a client's 'story' and 'illness experience', interactive pertains to the encounters between therapist and client, and conditional pertains to the mix of the blending of all of the types of reasoning (Fleming, 1991b).

More specifically, occupational therapists use procedural reasoning to identify problems related to function and the physical body and resulting from a particular disease or disability (Mattingly & Fleming, 1994). However, Mattingly & Fleming (1994) found that occupational therapists shift from a disease and procedural reasoning focus onto a more client centered focus involving other forms of reasoning. This is where narrative reasoning is used to develop an image or story of the client pre-disability, to learn how this current disability has affected his/her life, and to begin to develop a future image or story for a particular client (Frank, 1996). This type of clinical reasoning reveals more

information about the client's perspective, the client's values and interests, and the client's motivation (Burke & Kern, 1996; Frank, 1996; Mattingly & Fleming, 1994).

Interactive reasoning emphasizes the therapeutic relationship and gives information for the occupational therapist to determine how to best use himself/herself during intervention (Mattingly & Fleming, 1994). Interactive reasoning is used in conjunction with narrative reasoning to affect not only a particular client but a particular client, in a given situation, at a specific time, with an occupational therapist, within a given setting. Interactive reasoning is used by the occupational therapist to determine how to interact with a client at a particular moment. For example, it will clarify if the therapist needs to humor the client, console, or sympathize with the client.

Clinical reasoning in occupational therapy is compiled of procedural reasoning, relating to diagnosis and is also comprised of interactive, narrative, and conditional reasoning that make occupational therapy intervention highly specific to each client (Mattingly & Fleming, 1994). All different types of reasoning are used to pull out different factors about the client in order to shape and tailor the occupational therapy intervention. This process happens when all types of clinical reasoning are used simultaneously, what Mattingly and Fleming (1994) named conditional reasoning. A more experienced occupational therapist is able to perform these skills more automatically, like a habit, alternating between all types of reasoning as needed for the best possible intervention and outcome.

### **Physical Therapy**

Physical therapy research in clinical reasoning is limited but it is evolving. Physical therapy clinical reasoning is primarily diagnostic and concerned with the source and cause of the patient's impairment (APTA, 1997; Hayes & Adams, 2000). The main goal of clinical reasoning for physical therapy is to identify and categorize each client into a diagnostic grouping (APTA, 1997; Higgs, 1993; Payton, 1985). Hayes & Adams (2000) explained that the use of categorization in clinical reasoning allows for predictions about possible expected symptoms associated with the diagnostic category, predictions about prognosis and path of the condition, and allows identifying commonalities between cases. All of these benefits assist in the identification of the most appropriate intervention strategies. After diagnosis identification and categorization, a related problem list ensues which is based on the category and on the physical impairments that correlate and were identified in the examination/evaluation process. This categorization and related problem is what directs treatment selection (Delitto & Mackler, 1995). Examples of these types of problem lists were noted in clinical reasoning studies by Delitto and Meckler (1995) and Payton (1985). In these studies physical therapists were given hypothetical and actual clients. They developed exhaustive lists of clinical data which emphasized physical objective findings. They also identified primarily pathological and related movement problems.

Physical therapy acknowledges the influence of many factors on clinical decision making including availability of resources, the treatment environment, financial resources, and procedures and policies of the facility. May (1996)

outlined the various influences and categorized them into three groupings: the task universe, the decision maker, and the task environment. The task universe influence is the external environment and resources. The clinical decision maker influence is comprised of the physical therapist's past experiences, cultural background, values, manner of thinking, and individual knowledge base, which according to Higgs (1993) mainly includes medical and applied sciences. Higgs (1993) and Noll, Key and Jensen (2001) reported that the knowledge base and clinical experience of the decision maker significantly influence the success of physical therapy clinical reasoning. The task environment influence is the combination of a particular physical therapist in a particular task universe.

Jones, Jensen, & Edwards (2000) more recently in literature acknowledged research from outside the profession of physical therapy, in fact from Fleming & Mattingly (1994) in occupational therapy and suggested the need to recognize a fourth influence on clinical reasoning, the patient. Jones, Jensen, & Edwards (2000) identified a need to include a non-diagnostic nature to clinical reasoning in physical therapy as well. Jones, Jensen, & Edwards (2000), pulling from occupational therapy research, specifically from Mattingly and Fleming (1994), reviewed the importance of narrative reasoning and obtaining stories from the patient. Jones, Jensen, & Edwards (2000) suggested that when listening to the patients' stories, the physical therapist can recognize commonalities and features that are represented in previous cases. Jones, Jensen, & Edwards (2000) stated that this information about the client is added to the original understanding of the disease to gain a wider definition that

represents more than just the related pathology and this information can be used to further define diagnostic categories.

### **Summary**

Clinical reasoning in occupational therapy emphasizes narrative and interactive processes in efforts to gain a clearer picture of subjective data, how the client is reacting and handling the effect of the illness/injury on his/her performance of occupations in his/her life. Occupational therapy clinical reasoning accentuates the uniqueness of each case as each client is unique in his/her reaction to the impact of the occupational dysfunction. This contrasts with clinical reasoning in physical therapy where the emphasis is placed more on procedural reasoning in efforts to gain a clearer understanding of objective data, diagnoses, and related physical conditions. Clinical reasoning in physical therapy seems to accentuate the similarities and commonalities in an effort to categorize information to further make predictions regarding prognosis and intervention.

## CHAPTER IV

### OVERALL LITERATURE REVIEW SUMMARY

Despite having different histories, philosophies, intervention focuses and clinical reasoning processes, these two disciplines have been interpreted by third party payers, referral sources, and sometimes clients as well as practitioners themselves as having too many similarities and duplications. With healthcare insurance changes and related cost containment trends, the boundaries, definitions, and futures of both occupational therapy and physical therapy are at risk to be determined or heavily influenced by those who do not even understand each discipline. The purpose of this study is to uncover the unique aspects of each discipline and illuminate the different services each profession contributes to the rehabilitation of a client in a skilled nursing setting. Specific aims are geared toward uncovering the difference between occupational and physical therapy related to each profession's focus of intervention. Furthermore, this study is also aimed at comparing the focus of occupational therapy intervention found at current to that found in literature historically to determine if it remains the same and to determine if that is indeed the unique aspect of occupational therapy especially when compared to physical therapy.

## CHAPTER V

### RESEARCH METHODS

This exploratory study used a qualitative approach to describe the roles of occupational and physical therapists practicing within a skilled nursing facility (SNF) environment. Each discipline alone, as well as the relationship between the two disciplines, was examined in an effort to describe similarities and differences between the two. This was accomplished by exploring the clinical reasoning of six individual therapists, three occupational and three physical, employed in SNF settings. An objective account of the therapists' interpretations of their roles and interventions with a particular case study client was recorded. The therapists were encouraged to give meaning to their own explanations of their intervention and thus followed the principles of phenomenological research (Bailey, 1997; Depoy & Gitlin, 1994). Using the constant comparative method of grounded theory, the resultant data was analyzed thematically in an effort to derive categories related to the intervention of each profession and thus gather new insights and understandings regarding the differing roles of occupational and physical therapies (Glaser & Strauss, 1967). This research was approved by the University of New Hampshire Institutional Review Board.

#### **Subject Selection**

The three occupational therapists and three physical therapists selected as interviewees for this study were volunteers from a convenience sampling

within southern New Hampshire and eastern Massachusetts. One occupational therapist and one physical therapist were from the same skilled nursing facility in New Hampshire. The four other therapists interviewed (two OT and two PT) were from four different facilities. Subjects were recruited by word of mouth and through colleagues' suggestions. Subject selection was also deliberate in that the informants each met specific criteria to ensure experience in the skilled nursing facility setting. Each interviewee worked in a skilled nursing facility at the time of the interview. Each interviewee also had at least five or more years of occupational or physical therapy experience in an attempt to exclude those with less developed clinical reasoning skills (Dreyfus & Dreyfus, 1986; Fleming & Piedmont, 1989). This was done to capture the reasoning of the therapist who is at least at the level of ability to individualize therapy to each client, the competent therapist based on Slater and Cohn's (1991) interpretation of Dreyfus and Dreyfus's (1986) descriptions. Therapists with even more experience would be expected, by Slater and Cohn's (1991) standards, to be able to recognize and communicate the level of importance of many factors contributing to the intervention and related decisions. None of the interviewees had occupational and physical therapy dual degrees. None of the interviewees had a certification in hand therapy.

The interviewees had a collective average of 10.7 years experience. The occupational therapists had an average of twelve years of experience. All three occupational therapists had psychiatric setting experience, two had inpatient rehabilitation experience, one had experience working with people with traumatic



brain injury, and one with pediatric cases. All three occupational therapists worked in the skilled nursing facility setting at the time of the interviews. The physical therapists averaged nine years of experience. All three had outpatient experience. Two had acute care experience, one had work hardening experience and one had pediatric experience. All three worked in the skilled nursing facility setting at the time of the interviews. The therapists were not financially or otherwise compensated for their participation in this study. Pseudonyms were used to conceal the identity of the informants. Table 1 describes each informant's professional experience.

**Table 1: Interviewees' Professional Experience**

<b>NAME</b>	<b>OT / PT</b>	<b>Years of experience</b>	<b>Areas of experience</b>
Nora	OTR/L	10	Inpatient psychiatric facility, Psychiatric day program, SNF
Gene	OTR/L	9	Inpatient rehabilitation, Inpatient psychiatric facility, Inpatient specialty in traumatic brain injury, SNF
Kathy	OTR/L	18	Inpatient psychiatric facility, Inpatient pediatric facility, Acute inpatient rehabilitation, SNF
Angela	RPT	6	Outpatient, SNF
Terri	RPT	12	Outpatient orthopedics, Acute care, Work Hardening, Homecare, SNF
Maura	RPT	9	Outpatient, Acute care, Pediatrics, SNF

### **Research Procedure**

Following Bailey's (1997) recommendations for using unstructured interviewing as a qualitative research design, face to face, semi-structured interviews were used to gather data to understand and describe perspectives from the interviewees' point of view. Each interview took place separately and was held in the skilled nursing facility where each therapist worked. Interviews lasted from 1 - 2 hours. Each interview followed the same procedure. First I introduced myself as an occupational therapist doing research for a thesis to complete my Master's degree in occupational therapy. I then explained the topic and purpose of the interview and research study as well as reviewed the consent form (see Appendix B).

In an effort to concentrate solely on the interviewee's perceptions, the interview questions were designed to discover interviewee thought processes and patterns of clinical reasoning. To accomplish this goal the interview questions revolved around a particular case study client. Hansen, Kamp, & Reitz (1988) used case studies to illuminate the different thinking processes therapists used to reach solutions regarding ethical dilemmas. Neistadt & Smith (1997) also used case studies for more effective clinical reasoning teaching and analysis. For this study, I presented a client example, Mrs. Apple, who had a hip replacement. This is a common type of clinical example seen in a SNF. This diagnosis also is fairly straight forward without unpredictable neurological complications.

Each interviewee was initially given minimal, basic information regarding

the client, her diagnosis, and the basic scenario which precipitated her hip fracture (see appendix C). The interviewees were then directed to ask questions as if they were conducting a chart review and client interview. Their questions were answered from the remainder case study information (see appendix D), maintaining consistency of information shared with each interviewee. The interviewees were encouraged to direct the conversation.

After the interviewee reported that she had gathered enough data to start intervention, the interview questioning began. A list of predetermined open ended questions was used (see appendix E) to enhance consistency among the interviews and to ensure achievement of the overall goals of the study (Bailey, 1997). These questions were in no specific order but were interjected as they best fit throughout the discussion.

Significant effort was made, despite obvious preconceived ideas with the interviewer being an occupational therapist, to gain purely the interviewee's point of view. The interviewer did not give meaning to the responses, but instead asked other probing questions to clarify and validate the interviewee's meaning of responses (Bailey, 1997; Depoy & Gitlin, 1994). For example, when the interviewee used certain terms (i.e., safety, function, mobility, previous level, return to independent) the interviewee was asked to explain her own meaning to those terms and to give examples whenever possible. The interviewee was also regularly prompted to discuss the topic at hand at length, to give examples as often as possible, to verbally review her thought processes and to offer personal feelings and opinions about the topic.

All six interviews were audio taped with informed consent and later transcribed verbatim before any data analysis began. Personal notes including comments and feelings of the interviewer were kept to identify and acknowledge preliminary thoughts and any biases.

### **Data Analysis**

The data was coded and analyzed using the constant comparative method of grounded theory (Glaser & Strauss, 1967). After transcription, the data was entered into a computer program, Hyper research from Researchware (Hesse-Biber, Kinder, Dupuis, Dupuis, & Tornabene, 1994) for ease of coding and analysis. This program allowed the data from each interview to be examined and phenomena labeled without laborious pencil and paper tasks. Categories that emerged were then identified and further named (Clark, Corcoran, & Gitlin, 1995; Glaser & Strauss, 1967). If information did not fit into the initial categories, new categories were identified and named. When any codes or categories were unclear in the computer reports, the transcribed interview printouts were consulted for more contextual cues. All of the data was examined in a posteriori manner to avoid using predetermined categories and to expel researcher bias. Categories and themes were coded as they emerged from the data and thus more clearly reflected the perspectives of the interviewees not the interviewer (Bailey, 1997; Deploy & Gitlin, 1994). Each phenomena categorized was constantly compared to others previously coded in that same category to further understand the properties of that category (Glaser & Strauss, 1967). This continued until reaching a point of saturation, when a

category included enough examples to define its properties (Bailey, 1997; Glaser & Strauss, 1967). This process of constant comparison to the point of saturation facilitated the following: A description of each category including its boundaries and dimensions, identification of what may and may not fit into each category, and an understanding of why and how each category relates to the others identified (Glaser & Strauss, 1967). If any data was not understandable within the computer program, the original transcriptions of the interviews were consulted for more contextual information.

After identifying and coding the different categories of information, resultant reports were printed out for further analysis. This allowed for pattern recognition in data, further insights into data, and identification of links between data. These links and relationships between categories were analyzed further for confirmation and then used to form the basis for the emerging theory of the differences between occupational and physical therapies in the skilled nursing facility setting.

## CHAPTER VI

### RESEARCH RESULTS

Analysis of the data from therapists from both occupational therapy and physical therapy revealed that each had a different primary focus of intervention for each profession. Analysis also uncovered primary and secondary themes for each profession.

The occupational therapists described a central focus on the *client and her life story* throughout all phases of intervention. The occupational therapists also described secondary foci of *flexibility* in intervention and *client motivation* during intervention. *Holism* and *occupation* were themes constantly prevalent as well. The physical therapists described a central focus of intervention on *mobility* throughout all phases of intervention. The physical therapists discussed additional main focuses including *range of motion (ROM)* and *strength*. Secondary themes brought up in discussion by the physical therapists included *safety, client centeredness, and function*.

#### Occupational Therapy

The occupational therapy data revealed three distinct themes. The most prominent theme revealed addressed the occupational therapist's drive to uncover the "client's story" which served as the primary focus in occupational therapy intervention. The occupational therapists also placed a strong emphasis on the idea that occupational therapy intervention was "flexible". This emerged

as a secondary theme. A recurrent concern with the client's level of motivation for recovery was uncovered as a third theme related to occupational therapy intervention. These last two themes although constant, were not as prominent as the first theme of the client focus. A focus on occupations as well as holistic thinking was constantly prevalent throughout the entire account of occupational therapy intervention.

### **The Client's Story**

All of the occupational therapists began their discussion of Mrs. Apple, the fabricated case client, by wanting to know more about her. This focus, on the client as a person was broad and included physical, psychological, social, personality and interests, occupational, and environmental aspects of her and her life. All three therapists spoke of a concern with the 'whole' client. Nora explained that in her quest to uncover the client's story, her focus is holistic and includes physical, psychological, behavioral, and environmental aspects.

*I look at them (clients) as a whole, not just from a physical point of view. I look at them from a psych point of view. I look at them behaviorally, you know and I take all of that into account. I look at the environment that they're in that they're functioning in and again that's what OT is all about is looking at the person as a whole and not as a disease. So taking all of that into account, and I think that's the difference between OT and PT, is that we do have those skills and we use them and that's what makes our treatment as a little, you know, I don't want to say special, but it makes it different, it really does. (Nora)*

Nora pointed out that she focuses on the mind and body aspects of the client and on the context surrounding the client and his/her particular situation. Nora voiced that this broad holistic focus on the client and not on the disease is what separates occupational and physical therapies. This focus on the client and

inclusion of the psychosocial aspects directed all of the occupational therapists' interests away from disease related thinking and instead lead naturally to a client centered approach.

Keeping this holistic perspective, the occupational therapists wanted to know about all aspects of Mrs. Apple's unique story and sought information in a systematic and deliberate process. This process involved getting to know what Mrs. Apple's life was like before her recent total hip replacement (THR) surgery, how her life and related plans have been disrupted from the THR, and learning how she saw herself and her life in the future. The information of the client's past, present, and future were part of the initial evaluation and continued throughout intervention planning. Nora tried to sum up this timeline process when she said.

*That's what you do as an OT anyways, you assess the situation from where she (the client) leaves (before she was injured/ill) and you see where the person is at and you assess their goals depending on the progress they've made and you kind of take it from there. (Nora)*

Nora described the steps as identifying the client's prior level of functioning, assessing what level she's at since she had the hip surgery and learning the client's future expectations or goals. It is the occupational therapist's role to use this information to help the client progress to reach his/her goals. This need to understand a client's past, present situation, and future was discussed in great detail by the three occupational therapists.

Past story. All three occupational therapy interviewees, in an effort to understand what life was like for this particular client in the past before her



surgery, engaged in a sequence of questions to learn about the client's previous occupations, physical and social contexts, interests and hobbies, routines and habits, and personality. All three therapists followed a similar line of questioning when searching for this information, formulating the client's past story. The content of these questions emphasized learning specifics about Mrs. Apple's life and correlated with the occupational therapy interviewees' drive to comprehend and appreciate each particular client's story. Gene conducted an interview and followed an intentional, yet unplanned, sequence of questions to gather information about Mrs. Apple's past. Gene's questions about Mrs. Apple's medical status or disease/illness/injury seemed to hold less of an emphasis as they were asked later or were short, simple questions without many probing questions following.

*Ok, Mrs. Apple, 72 years old, is she married or single, widowed? A hip fracture from what, a fall? Elective? (surgery) Obviously not elective. What was she doing outside? What kind of dog (was she walking)? I know that sounds funny, is it a big dog that can go out by itself or is it a little dog she has to walk? Does she have a fence? Can she put it on a leash? That's what I would ask her, for compensatory strategies. A distance or just out in the yard? (to walk the dog) Does she have steps? Bilateral? (railings) She fell on the ice, walks a small dog. Were the steps cleared? Did she have to clear them? So someone helped her, was it a hired hand or someone in the household? Ok, widowed, she lives alone then? She was independent prior to admission? All self care? Drive? Shower, walk in, or tub? Rails? Rails outside the shower, inside the shower? Ok, you said she lived all on one floor, no steps inside? Apartment, ok laundry in her apartment or outside? Did she use a wheeled cart or did she carry it? Does she have a weight bearing status from her doctor? Well at this level we're SNF so I would ask if she had OT or PT prior to this admission. Both OT and PT? Does she have a prior medical history? (Gene)*

The questions asked revolved around identifying the client's past repertoire and

performance of occupations. Through this questioning process Gene, in the example above as well as the other occupational therapy interviewees, identified particular occupations specific to this client. Then they continued to seek out more specific information regarding how the occupations were performed, what techniques were used, what adaptive equipment was used, and if there was anything specific about the occupations as they were performed by this particular client. In the example above, Gene, after learning that Mrs. Apple had a dog, asked a multitude of questions to identify specifics about Mrs. Apple's occupation of caring for her dog. Gene also identified related task demands Mrs. Apple experienced prior to injury. Gene explained that some of her questions revolve around planning for the future. She investigated the plausibility of changing the environment and/or task demands to meet occupational demands of walking a dog with a THR. Kathy gave another example of the type of questions she would ask to understand specific requirements about a meal preparation task for this client.

*I'll sit down with them and I'll say "What do you have for breakfast, what do you have for lunch, what do you have for dinner?" and "Do you make anything special, do you have any special foods that you like?" And then that gives me a great idea about what kind of appliances they have to be able to use to go home. (Kathy)*

Kathy delved into specifics about the occupation of meal preparation for Mrs. Apple. She sought more information about Mrs. Apple's interests, likes, and dislikes as well as gained a clearer picture of her previous cooking performance as well as what she will need for home cooking demands. Kathy sought out to clarify what the occupation of meal preparation meant to her individual client.

In continued attempts to gain a clear picture of how Mrs. Apple performed occupations prior to her surgery, all three occupational therapy interviewees also wanted to know what kind of equipment, if any was used to assist with activities. Kathy asked about a walking device, bathroom equipment, and activities of daily living (ADL) equipment that Mrs. Apple may have used at home before her injury.

*Did she use a device to walk?...Was she using any adaptive equipment before at home, like a shower seat or a raised toilet seat or anything like that? (Kathy)*

Gene also wanted to know more specifics about prior use of adaptive equipment.

*I'd find out if she used any equipment. When I say equipment I mean adaptive equipment. Does she spontaneously use a reacher at home because she didn't want to step up on a step stool? ...Did she use a wheeled laundry cart or did she carry it? (Gene)*

Gene wanted to identify specifics about how Mrs. Apple performed these tasks in her own environment. Nora searched for similar information regarding equipment used at home and explained her process of thinking regarding why she wanted this information.

*What is her bathroom situation? Does she have a tub chair? Is she going to need a tub chair, or can I get her to the point where she can transfer in and out without needing special devices? Does she have grab bars? What is her bed situation like? Does she have a really high bed or is it a low bed? Is she somebody who is going to need a bed rail? (Nora)*

Nora's line of questioning displays her thoughts of asking this information as a way to plan for the future needs of the client. All three therapists inquired about adaptive and durable medical equipment to further understand the quality of Mrs. Apple's performance of occupations.

All three occupational therapy interviewees inquired not only about the

client's prior occupations, capabilities, adaptive equipment, but also about the environment or context in which the activities took place. This involved an investigation, through the interview and chart review of the client's living situation, including both the physical set up as well as the social supports available.

All three therapists asked multiple questions regarding the physical set up of the client's home. During her sequence of interview questions previously noted, Gene gave a good example illustrating the type information desired about the client's home set up.

*(Does the client have a) shower, walk in or tub? Rails? Rails outside the shower, inside the shower? Ok, you said she lived all on one floor, no steps inside? Apartment, ok, laundry in her apartment or outside? (Gene)*

Nora explained, as quoted earlier, that she looks at the whole person which includes the environment.

*Where was she living? What kind of setting was she living in?...I look at them (the client) as a whole, not just from a physical point of view. ...I look at the environment that they're in that they're functioning in. (Nora)*

Nora asked a sequence of questions revolving around home set up and environment in preparation for discharge home.

*We need to look at what kind of modifications we need to make at home. What was her kitchen set up? Is she going to have to do a lot of bending down?...Because she was so active as far as homemaking and things like that, I would look at that and see if she is going to have to do a lot of bending down for baking to put things in the oven and take it out. ...You need to look at the environment, you need to see how it is set up. ...Does she have stairs to climb up? Those are things we have to look at as well, even though they're more of a PT issue, but still as an OT you look at everything. (Nora)*

The above interview data focused on Mrs. Apple's physical environment related to task demand. In continued efforts to seek understanding of Mrs. Apple's prior environmental situation, all three occupational therapy interviewees also wanted information regarding Mrs. Apple's social contexts. They each sought to understand her previous pre-injury/surgery relationship and proximity with her family and friends.

*Did she live at home? ...Does she live with anybody? ...By herself? Does she live alone? Widowed? She's alone then?*

Kathy's questions reflected similar interests.

*Was she involved in the community?...Does she live with anybody?...Does she have family and where are they? Are they located nearby? (Kathy)*

This social and physical contextual information the therapists sought out added to the client's life story and continues to portray occupational therapy's holistic approach.

The therapists conducted the interviews and chart reviews to become more familiar with Mrs. Apple's story by learning her previous occupations, level of performance of these occupations, and quality of performance. For example they wanted to know if equipment or human assistance was needed and what routines were involved, as well as the environment in which the performance took place. In further attempts to understand Mrs. Apple's story in more detail, all three occupational therapy interviewees wanted to know what her personality and interests were like before her injury/surgery. The occupational therapy interviewees reported using different techniques to identify aspects of a client's

personality, preferences, and interests. Kathy wanted Mrs. Apple to share information about herself throughout the interview that would give her an idea of what Mrs. Apple's interests, preferences and personality were like before her surgery.

*I would just want her to kind of spill her guts as much as she could. Tell me as much about herself, her background, and where she grew up, what kind of work she's done. (Kathy)*

Kathy also wanted to look through the chart and talk to others to formulate and clarify her picture of the client's life and personality.

*I want to know what the client's personality is like and what works well for them. I kind of want to know "What makes you tick?" and "What kind of person were you before you were this type of person?" ('this type' meaning the type she sees now after surgery) and "Were you this type of person your whole life?" (Kathy)*

Gene uses the Canadian Occupational Performance Measure (COPM) (Law, Baptiste, Carswell, McColl, Polatjko, Pollock, 1994), a formal assessment tool, to help her find out about the client's previous interests.

*You just try to get them more and more active, and we can use things like the Canadian Occupational Performance Measure to help identify what their (the client's) preferences were before (prior to the surgery or injury). (Gene)*

The occupational therapy interviewees sought out this information about Mrs. Apple's interests, values, preferences, and personality to obtain a holistic picture of her as a person and to use the information gathered in intervention. Kathy discussed that she would gather and use this information to delineate a treatment plan for the client.

*I'll sit down and talk to them just about their past. Sometimes I get caught up I think "wow this is an interesting person", but I guess I'm not really thinking about how I'm using that information to*

*formulate my treatment plan, and I am. (Kathy)*

Kathy recognized through the interview, that she does not always think about her clinical reasoning and how she is using client information, yet she acknowledged that she is using it. At another point in the interview, Kathy discussed how she indeed uses the information regarding a client's past interests to facilitate engagement in participation in therapeutic activities.

*And then talking, finding out from her what kinds of things she enjoys doing which gives me treatment ideas that will engage her in purposeful activity. (Kathy)*

Again later in the interview, upon direct questioning regarding methods used for identifying treatment activities Kathy reported that she would choose specific treatment activities for Mrs. Apple by "*drawing from her past and the things that she likes to do*".

Another way the three occupational therapy interviewees attempted to get to know more about the client was by requesting extensive information about Mrs. Apple's routines in an effort to understand what her life was like before her injury/surgery. The occupational therapy interviewees wanted to know what activities she did in a day, what was Mrs. Apple's routine like. Nora detailed the type of information and what she looked for when questioning a client about routines and why she would want this information.

*I find it easier to do things with people that's part of their daily routine, especially in the beginning to get that rapport so, with somebody like her, I think what I would do, like I said in the beginning, have a set schedule where at 9:00 we're going to get up and get washed and dressed and do what we have to do which is part of her routine. So it's important to find out what her routine was like. If she was somebody who was an early riser, and she got up at like 7:00, you should try to accommodate that, try to build it*

*into her daily routine, which is not atypical for her. And then eventually down the road we feel that we need to continue with the toilet transfers, because she's just not getting there and when we're doing it on her daily routine, her morning activities, if she's not really doing what we want her to, maybe just do another session in the afternoon, just focus on that alone. But I think if you do activities that are automatic for a person, that are part of their daily routine, I just think people do better than if you just go in and say ok we're just going to work on transfers today. So I just find it easier when people do it that way, especially the first few weeks. And if that's your focus really in treatment then it just makes it a lot easier because they know that that's the expectation, that they have to get up in the morning, they have to get washed and they have to get dressed. I have a hard time with, and sometimes we all do it you know, we have to depending on your schedule, you can't see everybody at the same time for ADLS. You only have so many hours to do ADLS with people. But somebody who's already washed and dressed, here we go we're going to undress and it just doesn't make it as therapeutic, or as functional. We are forced to do that sometimes and that's ok, but I wouldn't do it with somebody like her in the beginning. I would just do whatever was her routine, I would try to focus on that, it makes it more normal for her. So again as an OT you're looking at the whole of it, looking at, you want to see what her what her hobbies were, what were her habits, what was her routine like, and simulate that as much as possible.*  
(Nora)

Nora reported that she gathered information regarding the client's past routine to follow it in therapy and facilitate therapeutic gains. Nora reported that following the client's routine resulted in better performances it was relevant to her life. She stated that she can return and work on particularly challenging tasks later, out of routine, but Mrs. Apple would understand the need to work on a given task because of her challenge earlier in the day. Gene offered a good explanation of how she would use this information about routines in intervention.

*We (OT and client) can go up to the sink and again, just like the toilet and the bed, reinforcing how she's positioning herself at a seated level, if she feels that the chair is at a good angle for her hip so that she's not beyond 90, so that she's starting to get educated.*



*And then go through her self care routine, and some people automatically try to resume what they did before, standing at the sink, or trying to take a shower, you just have to tell them, this is our chance to really slow down and really pay attention to how you're moving, where before it was very spontaneous and I would go through (her routine) telling her to sit now, just to adhere (to precautions). ...We can talk about her routine at home and how we can adapt this situation to be closer to what she's doing at home, if she feels that there's not enough room in her vanity or she can't move a chair up close or if she decides she'll have enough strength to stand at the sink. (Gene)*

Gene explained that she would follow the client's prior self care routine but have the client slow down to allow for education on how to change her routine to accommodate her needs now that she has a THR. Gene did not give specific changes she would suggest to Mrs. Apple. Instead she discussed options based on the client's individual needs. Routines gave the therapists outlines for how to structure tasks in therapy to closely reflect previous ways of doing things. The therapists were then able to assess the need for any changes in task performance and instead of a major change in routine.

Through these questions, chart reviews, and assessment tools focusing on the client's life story pre-injury or pre-surgery, the occupational therapy interviewees were able to learn about Mrs. Apple's prior occupational interests, abilities, if she benefited from adaptive equipment or assistance, her routines, and the physical and social context in which she lived. With all of this information about the client's past, the occupational therapy interviewees came to some conclusions about what she was like before her surgery. Kathy discussed her ideas about Mrs. Apple after gathering the information above.

*I'm thinking she's a self motivated lady who's independent so I'm going to want to support that as much as possible. I guess*

*knowing that this woman doesn't have a history of falls and that she fell on the ice, and that otherwise she's been healthy, that this was probably an accident, it wasn't caused by anything that probably could have been changed pre-morbidly and I think she'll be easy to engage in therapy because she's self motivated and she has a lot of purposeful activity to get back to. (Kathy)*

This information, about Mrs. Apple's past assisted the occupational therapy interviewees to build a story based on Mrs. Apple's occupations. From the information of Mrs. Apple's past, the therapists were able to determine the occupations that were important to Mrs. Apple and the level of performance and independence that Mrs. Apple was accustomed to and likely desiring. The unique picture of Mrs. Apple and her individual life story was beginning to be more clearly defined as specifics were discovered about Mrs. Apple's occupations.

Future Story. Along with learning about the client's past occupations and related routines and interests as well as personality, the occupational therapy interviewees wanted to know what ideas the client had for goals. Gene directly stated that during her assessment "*I would ask her what her goals are.*" Gene further explained that she would explain to the client that her role as an occupational therapist is directed by the client.

*I say: "My job as an OT is to focus on strengthening and safety and compensatory strategies, based on what you feel is important." Because we let them tell us what their goals are and how we can help them reach them. (Gene)*

Just after gathering information to formulate Mrs. Apple's past story, Nora detailed the information she would begin to solicit from Mrs. Apple herself regarding goals.

*I'll ask what the discharge plans are going to be, what they're interested in. Is she going to be on a walker? Is she going home? What kind of a setting is she supposed to be returning to? (Nora)*

Nora stated that her goals were aimed at helping the client be able to perform the same occupational activities in which she engaged prior to her surgery and return to her prior life.

*It sounds like we need to get her back to her prior level of functioning...She would resume her previous role in life and return to the community. (Nora)*

Kathy explains that her goals would come from the client's past story as well.

*Well, they (goals) would come from her prior abilities and considering the fact that she was doing everything herself then I would expect her to be able to return to that too...I think I would basically start out by explaining that as the OT it was my job to help her to get back to her prior status safely...basically that it was to get her back to perform herself, and back into her life again. (Kathy)*

Gene also said that occupational therapy intervention and goals would reflect the client's prior life by emphasizing a return to her prior routine because the client "values getting back into that normal routine" after it has been disrupted by an injury/surgery.

Determining the client's goals and setting the goals with the client all start to help define for the therapist and the client what her future story is going to involve. Gene pointed out her emphasis on the use of the client's values and interests and his/her future story ideas as a primary influence on goal identification.

*It's definitely a priority, and if they feel that self care isn't that important, at the beginning do something else. I've had a patient here, if a patient's interested more in resuming their cooking, versus their self care, because "My wife can come and wash my*

*back, that's not important." Or whatever, "They can help me with my feet." "I just want to make my gourmet meal again." Let's take them into the kitchen. (Gene)*

Gene pointed out that if the client does not necessarily see himself as independent with self care in his future but instead he values and want to regain the ability to be able to perform a different occupation, then she would support this in therapy with related goals. The client is the primary influence in choosing goals and thus identifying his/her future life story. The occupational therapist facilitates the client in engagement in occupations to reach these goals and live this future life story as depicted by the client. The occupational therapist may influence the future goal selection, and thus the future life story, based on his/her experience and knowledge. For example a client may not realize his/her capabilities and may feel that he/she will not be able to complete prior tasks and related occupations. In this circumstance the occupational therapist educates the client and helps them formulate a future picture that is representative of their capabilities. Gene talked about what she might say to a client in this situation.

*They'll say things like "Oh, I'll never be able to put my shoe on again." I say "Oh, no we have some great ideas for you. Let me show you some great things, after all, my goal is to get you back home." Or, because this is a nursing facility they come here and say "I'll be here forever, I'll never get to go home again." And I'm like "No, no, no, this is a rehab center too and that our ultimate goal is to get you better so you can get home." (Gene)*

Gene's example outlined the possible misconceptions a client might have after a hip replacement that would direct his/her future story along a less capable path.

Gene reported how she would help show this client options in an effort to redefine his/her future story with a more independent outlook.

Another influence on development of the future picture of Mrs. Apple involves her proposed discharge environment. Similar to the investigation of the past environment, the occupational therapy interviewees were also interested in the future discharge environment. As quoted by Nora earlier in this section, she reported she would find out from the client what setting he/she plan on being discharged to and if it might it be to her home.

*Is she going home? What kind of a setting is she supposed to be returning to? (Nora)*

Gene reported, if possible at some point later in treatment, the future discharge environment would ideally be physically assessed with the client.

*There are times when we can do home visits and we can determine how her home environment will work out for her. (Gene)*

Nora's comments echoed this home assessment need and she gave detailed information regarding the focus of this type of assessment for this client.

*With the home safety eval you need to look at the environment. You need to see how it is set up and you need to see the person and the furniture and then make modifications. If she has scatter rugs those are things I need to look at. What is her bathroom situation? Does she have a tub chair? Is she going to need a tub chair? Or can I get her to the point where she can transfer in and out without needing special devices? Does she have grab bars? What is her bed situation like? Does she have a really high bed or is it a low bed? Is she somebody who is going to need a bed rail? Or can you get her to a level where she can get up without having to have any special devices. Because she was so active as far as homemaking and things like that, I would look at that and see is she going to have to do a lot of bending down for baking to put things in the oven and take it out and how can we adapt that for her, can we teach her different ways to do it? (Nora)*

Nora focused this list of questions around physical aspects of Mrs. Apple's environment. However, future discharge environment assessment also included

information gathering about Mrs. Apple's level of social support available at discharge. The specifics gathered about the client and her family and relationships pre-surgery were helped determine the amount of assistance and support that would be available for the client in the future when discharged from the SNF unit to her home. Kathy gave an example of questions she would ask regarding family availability and proximity.

*Does she have family and where are they? Are they located nearby? That's going to give me an idea of, as well as what kind of relationship does she have with them. That gives me a good idea of about how much kind of support she's going to get. If her kids are in the community or not and whether or not she had a good relationship with them. (Kathy)*

Kathy used this information to determine if it is realistic for the family to be involved in Mrs. Apple's care after discharge to her home. Gene wanted to know more about the family and how much they feel they could assist with aspects of Mrs. Apple's care after discharge home.

*How much availability does the family have to assist and what would they assist with? Some people just won't do it, they'd flat out say I'm not being responsible for that. (Gene)*

Gene recognized that just because a client has family nearby does not make those people a support for a client.

In brief summary, the occupational therapists all inquired about the client's past life story, and at times used that information to help develop the client's future life story. The content of this future story reflected the occupations identified in gathering information of the past as well as the client's goals for future environmental expectations including both physical and social barriers and supports. The main influence on the development of the client's future life story,

however, was the client him/herself. Only at times, if the occupational therapist saw potential the client did not recognize, did the occupational therapist intervene with education to help shape the client's future story to reflect what the occupational therapist saw as potential future goals.

Current Story. The previous information regarding the client's past life story, prior to her THR, as well as her future life story was used by each of the three occupational therapy interviewees to formulate a mental list of occupations to evaluate. The occupational therapy evaluation involved the observation of occupations and related routines as performed by the client to determine her current abilities. The therapists wanted to identify how Mrs. Apple's injury/surgery had affected her performance of her prior occupations. This evaluation was meticulously thought out and planned to be sure the occupations and environment under observation, specifically reflected Mrs. Apple's past as well as encompassed her future discharge occupations and environment. Kathy clarified this point well.

*My preference is to go in when a person is in their bed and flatten the bed and see if they can get the blankets off, get out of bed, I want to make sure I'm assessing what her bed mobility would be like at home and so I'm looking at a flat bed, I don't want any rails or anything that she is going to grab hold of, I'm not going to let her grab hold of me. If anything, I would cue her if she needed some help with the technique, if in fact she was going to ask me for help. And I would be looking at her, the technique that she used to get out of bed: If she was rolling on her side or if she sat straight up forward, I'd be looking at the use of her arms and how much weight she was putting on her arms, because some people use their arms to help their body get out of bed as opposed to using their trunk and their legs. I'd also want to make sure she can get the blankets and sheets off her feet, because she's going to need to do that at home. And I'm going to be looking at her balance as she's sitting on the edge of the bed, to make sure that she can balance herself.*

*I'm also going to be looking at the height of the bed and where her feet are and also looking at safety awareness and how safe she is. If she were to lose her balance is she 1) physically able to correct herself and 2) is she cognitively aware that she needs to correct herself and how she would do that. (Kathy)*

Kathy was assessing what Mrs. Apple did before and how she performs the task currently. She took into account Mrs. Apple's prior technique and habits for bed mobility. Kathy was specific about observing Mrs. Apple in a bed that was similar to her real home environment, not a hospital set-up. The bed set up in this example reflected the past environment but also considered the future discharge environment. Kathy also reported she would have Mrs. Apple attempt to remove the covers of the bed, thus more closely simulating the functional components of this task as she would have performed it in the past and will have to perform it in the future at home. Kathy was identifying the quality of Mrs. Apple's performance of a necessary task, despite a new THR, given a context similar to her prior environmental context. Kathy brought the knowledge she gathered from the client in the interview regarding the client's home set up and she also brought her knowledge of how a THR affects human performance as well. Because of her knowledge of task analysis. Kathy also noted other performance skills she would include in her assessment. For example Kathy noted she would also look at her process ability, specifically Mrs. Apple's ability to identify and solve a potential safety risk issue. Gene also discussed her assessment of Mrs. Apple's performance using different tasks.

*We'd go in and ask her to go up to the sink which would entail her bed mobility, getting her from supine to sit...and try some mobility, some balance at the bed level, having her try to reach for her call bell if she's sitting at the edge of the bed, having her try to put her*



*slippers on if she can. ...Being on narcotics sometimes people forget, even if they were cognitively alert before, and there might be sometimes with the elderly,...so somebody that was cognitively intact might still be forgetful, they haven't fully awakened so I'd watch for that in anything that she does. So, I'd see if she had proper hand placement when she's going from sit to stand, and if she knows that she's only toe down weight bearing, keep most of the weight off of her leg and on her good leg...if she's not using proper body mechanics, and then just walk with her to the toilet and see if there's a good toilet height,...the whole time you're doing this you're educating the patient. ...So I'd make sure that her toilet was all set for height, and that she wasn't straining,...see if she needs the rails or if she can be pretty self sufficient with just the bilateral rails on the toilet or if she needs bilateral rails on the wall. And see how she's doing with positioning the walker so that it stays in front of her the entire time, so she's not holding onto the wall or she's not pushing the walker away before she sits. Easing herself down gently. It's all safety. And then we'll go see how she does mobility wise up to the sink, because along the way I would ask, for a matter of separating our disciplines, I would ask PT how her gait is, and let them cue her about the weight bearing, all I would be doing is reinforcing what they say to her, I am not going to be educating her about gait and walker use, with the exception of how to position it when you're accessing the environment, and what I mean by that is reaching for anything, cuz the gait training, that's all PT's role. I would help them, being the team, by reinforcing that. We can go up to the sink and again just like the toilet and the bed, reinforcing how she's positioning herself at a seated level,...and then go through her self care routine,... see how she does with lower body dressing knowing that she can't do the leg, I want her to tell me that she has to stop if it's beyond 90 because at this point I've had four or five times to tell her not to bend beyond 90 degrees and I want her to cue me or I will physically stop her and just say ok stop and not let her bend any further if she tries to reach for her foot. Again the whole time she's doing her bathing and dressing reinforcing the hip precautions, see how she does with dynamic balance when she's standing up doing pericare or, pulling up her pants the rest of the way or fixing her skirt, whatever she decides to wear. (Gene)*

Gene described what she would look for during her performance analysis as part of her evaluation with Mrs. Apple. She confirmed that she chose necessary tasks and routines that would be important to return home. When asked why those particular tasks were chosen, Gene responded "because that would be the

*baseline of what she needed to do at home".* Gene described observing for motor and process aspects of Mrs. Apple's occupational performance.

According to the three occupational therapy interviewees, assessment of the current story included observing the client's current performance and related motor and process components as well as the current contextual components that supported or hindered performance. As the therapists noted above, the current SNF environment where tasks were performed by the client was adapted to more closely resemble the client's home set up. Therapists also looked at how the current SNF environment needed to be adapted to accommodate the client's current new situation with her THR. The current environment had to be checked to ensure it was safe and conducive to following hip precautions.

*(I would) walk with her to the toilet and see if there's a good toilet height, because we want to protect that hip. So I'd make sure that her toilet was all set for height, see if she needs the rails or if she can be pretty self sufficient with just the bilateral rails on the toilet or if she needs bilateral rails on the wall. (Gene)*

These examples of what is included in the assessment of the current situation display a holistic nature. The occupational therapists observed multiple components of performance including motor and process skills and contextual factors. The occupational therapists also took care to ensure the task reflected the client's past as well as the client's desired future.

In addition to performance analysis, the psychosocial aspect was also included in the ongoing occupational therapy assessment of the client's current situation. All three occupational therapists wanted to know more about Mrs. Apple and how this injury and resultant surgery had impacted her life. Kathy

spoke of what she wanted to find out about the client to help her understand the impact of the injury/surgery on her client.

*I kind of want to know "what makes you (the client) tick?" and "what kind of person were you before you were this type of person", and "were you this type of person your whole life, or did you change because you went through these traumas." ...You (the therapist) don't know, you don't know the story. (Kathy)*

Kathy admitted she does not know the client's life story and that she did not know how her life was impacted by this injury/surgery, but that she would like to know. Gene, as quoted earlier with building the client's future story, keyed into things her clients have said like the following to give her clues to their perceptions of the impact of the disability.

*They'll say things like "Oh I'll never be able to put my shoe on again." I say "Oh no, we have some great ideas for you. Let me show you some great things, and after all my goal is to get you back home" Or, because this is a nursing facility they come here and say "I'll be here forever, I'll never get to go home again." And I'm like "No, no, no, this is a rehab center too and that our ultimate goal is to get you better so you can get home." You know it really depends on how her affect is, you know she may feel like this is a total crisis. (Gene)*

Gene gave such examples of what past clients have said denoting the impact of illness/injury on her clients' lives. Gene shared examples of some responses she has heard from clients with THRs denoting fears of losing independence with lower body ADLs and with just being admitted to a SNF denoting fear of never being able to return home. Gene, later on in the interview also remarked that when you let the clients "vent" you find out where they are in life and you learn about the change they are experiencing.

*You, the OT have to be able to let them vent too...and realize where they are in their life and that this is a change. Be open*

*minded. (Gene)*

Gene recommended that the therapist be open to receiving this information from the client and to be respectful that the client is undergoing a life changing experience.

Kathy also spoke of her concern that even just being in a SNF setting, because of the injury/surgery might have an effect on the client.

*I'd want to look at psychosocial, although I don't think it will be a big problem for her but I do want to be able to have her acknowledge that it may be depressing for her to come into a skilled nursing facility, and that that's ok and make sure that I'm sharing with her my plan and goals and make sure that they're in line with her plan and goals so that she feels emotionally supported in this setting. (Kathy)*

Kathy wanted to ensure appropriate psychological support for her client as she experienced life after a THR in a SNF setting. Kathy also pointed out that she is concerned with how the client responds to her as a therapist as well. She expressed that she considers how to approach the client to facilitate the best therapeutic results.

*I'm thinking about: How do I approach her? What kind of manner do I approach her in? Is she somebody who I need to be kind of serious with or do I joke a little? And so I want to make sure that I'm responding to the way she responds to me. Because I want to make sure that she feels comfortable with me and will. And knowing that she's going to be comfortable with me, she's going to perform better. (Gene)*

Kathy felt strongly that understanding how the client is responding to therapy and the therapist would enable the therapist to tailor the correct approach to use with the client. She felt this ability to relate with the client would further enhance the client's performance. Gene illustrated the same principle as Kathy in noting the

benefits that can occur when a client is satisfied with the therapy experience. Gene also shared her reasoning behind her concern for how the client views his/her therapy experience and the impact it can have on performance.

*That's the whole, I mean if you want to get to the bottom of it that's the psychosocial component. If you're satisfied with what you've received or how you're doing you are going to perform better in your life. And that goes for anybody whether you're sick or not. If you feel better about yourself you're going to do better in your life or at least feel that you've done better in your life. We have a survey here, but they don't distinguish if you have therapy or not. They just say "do you think that you've benefited from your therapy?" "Yes or no?" It's that simple, "Yes or no?" not "How did you benefit from your therapy?" (Gene)*

All three occupational therapists did not assume to know the impact of the injury/surgery or of the rehabilitation process on the client just because they knew the diagnosis. They took Mrs. Apple's situation as unique. What made it unique was Mrs. Apple's individual perception of the injury/surgery, the experience of the rehabilitation setting, the therapy, and the therapist, and the related impact all of this had on her performance, her recovery, and her own life satisfaction.

Summary. Overall, the occupational therapists focus on the client's story, past, present, and future. Through their interviews with clients, review of charts, and intervention, occupational therapists investigate and intervene with many aspects of their clients' lives including performance of the motor and process skills, related social and physical contexts, the client's interests, personality, and perception of their illness experience as well as their response to therapy and the therapist. They engage the client and/or family throughout evaluation and intervention as well as determining goals for the future. The main theme

throughout the entire evaluation and intervention process is occupation. The client, and his/her occupations, is the center of intervention and the process is holistic in nature.

### **Flexibility and Motivation**

In addition to a primary focus on the client, all three occupational therapy interviewees expressed an emphasis on flexibility in intervention and motivating the client. These two topics emerged as themes of occupational therapy intervention. The occupational therapists emphasized the need to be flexible in their thinking. This flexibility was portrayed in their discussion of the many different choices they faced during all phases of intervention with each client. These choices were heavily influenced, and in fact driven, by the specific client and his/her specific situation and not by the client's diagnosis. These choices tailored intervention to meet each individual client's needs.

The occupational therapists also expressed the need to continuously motivate their clients. They gave examples of how they would accomplish this during interactions with their clients through the therapeutic use of their personality traits and the client's story. They discussed the benefits of this aspect of intervention as it enhanced the client's desire to participate and engage in therapy and recovery.

The client centered approach in occupational therapy naturally leads to flexibility in intervention. This is displayed in occupational therapists' discussions of choices of occupations evaluated, choices for intervention activities, choices for treatment environment, and family involvement. It is also reflected in the

multiple different intervention approaches the occupational therapists described including adaptive, compensatory, and restorative.

There are multiple factors that differ with each client that the occupational therapists considered in planning their evaluation and treatment. These factors included the client's past story of occupational performances, the current occupational performance influenced by illness/injury, and what the client desired for his/her future story. Occupational tasks that the occupational therapist would observe the client performing as part of evaluation and use for treatment purposes for Mrs. Apple were not previously determined, nor were they automatically chosen per diagnosis. Instead the occupational therapy interviewees were flexible with the specific occupations chosen, based on the client's interests and routines as identified in learning the client's story. In Mrs. Apple's case occupations used for evaluation purposes were those previously performed, necessary for the future, and valued by the client herself. Nora reported flexibility as she developed a unique program geared toward Mrs. Apple.

*I don't like to have recipes for people. I mean you have guidelines of practice that you follow, and then you tailor it to each person's individuality and needs. So typically with somebody like that, that's what I would do with them, and again you take it day by day and you change your goals and you adapt and you tailor. (Nora)*

Nora shared that she would follow basic guidelines but she would be flexible with intervention to reflect the individuality of the client. She also considered daily changes that require flexibility of intervention and possibly require a change in goals as well. Nora described how she would choose what to focus on during

evaluation and treatment.

*We need to look at her ADLs, IADLs, transfers, those kinds of activities because if that was her routine then that's what we need to work on. (Nora)*

Nora chose activities for intervention based on the client's own home routine not on the diagnosis or on her own ideas. Kathy's flexibility in treatment planning regarding what she would observe the client performing agreed with Nora's account. When determining what activities the client would perform and how they would be done Kathy remained flexible in her treatment planning. Kathy gave an account of how she would tailor her evaluation and treatment by ensuring her choice of activities reflected the individual client's life at home.

*The way we would do that is actually have her do the activities that she did at home in this setting and that we would try to adapt them as much as possible to make them like home, for example rolling the bed down so it's flat and practicing getting out of bed with the bed flat and to arm rails around it. (Kathy)*

Kathy pointed out that she would not only choose the activities the client did at home, but also adapt them in the SNF setting to be as close to what she did and how she did it at home. Gene also was flexible in choosing activities when designing her evaluation and intervention. As quoted earlier when she described her evaluation procedure of all the different tasks she would observe the client performing, Gene added in the end that those tasks were chosen to reflect the client's future environmental and role demands. Gene explained those were chosen because *"that would be the baseline of what she needed to be able to do at home"*. Gene remained flexible and did not follow a specific "recipe" for this client and instead based her intervention on the client's future story and related



environmental and role demands.

The therapists also described flexibility with goal setting in addition to evaluation and treatment planning. The goals also reflected specifics about the individual client. The goals were originally set by the client him/herself and at times had to be adjusted. Nora pointed out the need for this flexibility with goal setting and adjusting.

*If you're doing the same thing over and over and you see that she's failing at it, you need to adjust that goal, you need to downgrade it or upgrade it, what ever. You're constantly reassessing and adjusting your goals based on what you're seeing. And definitely someone who's alert like her and definitely with it I would definitely talk to her about it. I wouldn't just keep her at a passive role, I would definitely involve her in that whole process...So, you're constantly adjusting your goals. (Nora)*

Nora talked about how she considered the client's response to therapy and adjusting her goals as indicated. She also mentioned involving the client in this whole process from the start of setting goals all the way through intervention.

Nora also encouraged flexibility for occupational therapy goal setting to facilitate a client's successful attainment of the goals.

*As the therapist, we need to be pretty flexible as far as adjusting your goals and making sure the you're setting the person up for success and you're not setting them up for failure. (Nora)*

Nora expressed the need for flexibility in goals for successful occupational therapy intervention. Nora in a later discussion again shared the significance of flexibility of goal setting especially if it related to a difficulty the client was having limiting progress, and gave the example of depression.

*If they're not noticing if their patient is depressed, if they don't have that intuition, or they don't have that ability to recognize, somebody who has, or if they recognize it but they don't do anything about it,*

*then their patient is going to lose out, and actually as a therapist they're not going to be very successful. Because if they don't have the flexibility to adjust the patient's goals they're not being intuitive. They don't know how to. They're so rigid in their thinking, that these are the goals they established for the patient and that's it. They're going to get that patient to accomplish those goals no matter what. Then they're setting themselves up for failure and they're setting their patient up for failure. (Nora)*

Nora discussed how essential it is for the occupational therapist to be flexible in adjusting therapy to reflect the client's psychosocial needs. Nora did not see the problem of depression as a limitation to benefiting from therapy, she instead emphasized the need for the therapist to be flexible in shifting goals in an effort to promote success for the client.

Treatment activity choices for occupational therapy intervention were also flexible as they too reflected each client's specific needs. Nora identified that she does not automatically follow a pattern of specific occupational therapy intervention activities or occupations but instead is flexible and structures the intervention to reflect the client's past routines in an effort to maximize the benefits and the success of the intervention.

*I tend to do things with people (clients) that are part of their daily routine. Especially in the beginning to get that rapport. ...I think if you do activities that are automatic for a person, that are part of their daily routine, I just think people do better than if you just go in and say "Ok we're going to work on transfers today". ...It just doesn't make it as therapeutic, or as functional. ...I would just do what ever was her routine, I would try to focus on that. It makes it more normal for her (the client). (Nora)*

Kathy confirmed that all the information she gathers about her client helps her modify her therapy to meet that person's needs. Her response illustrates flexibility in her planning as she individualized therapy for each person.

*I think if I know as much as I can about her then it's easier for me to shape my treatment program. (Kathy)*

Kathy acknowledged that a client with a hip fracture and resultant surgery who is receiving occupational therapy at the SNF level of care would follow a typical therapy program but that she would need to be flexible and customize this program for the individual client. Kathy identified that a client personality is definitely one variable she considers when developing a treatment plan.

*Personality, motivation, age, would make a big difference. Past medical history would make a big difference. What their prior status was. All that would make a big difference. This is with the same diagnosis. Definitely their personality, and how they approach things. (Kathy)*

Kathy also identified other psychosocial variables she considers when developing a treatment plan but continues to emphasize personality as a significant influence. Gene too expressed that obtaining information about the client's preferences and interests is definitely a priority for treatment planning.

Nora specifically named "mental flexibility" as well as her ability to see the psychosocial implications of a physical disability as central to tailoring an occupational therapy program for an individual client.

*Well, again, having the psych background, I look at them as a whole, not just from a physical point of view. I look at them from a psych point of view, I look at them behaviorally, you know I take all of that into account. ...I can easily tailor a treatment session, because I have that mental flexibility. (Nora)*

Nora explained that with mental flexibility and experience she could change treatment activities to suit a client and still address the same goals.

*I could easily switch the focus of the treatment to something totally different, and still work on the same goals. (Nora)*

Nora related an example from prior experience in which she used her knowledge

of a client's interests and her own mental flexibility to plan intervention activities.

*I had a patient, she had a stroke so we were communicating through writing, we did a lot of fine motor activities, and she's not going home, (so she doesn't have to get her own meals) but she likes to cook. So I said to her, "Do you want to work on cooking?" And we're still working on fine motor because she still has to open, crack eggs, and we're gonna make an omelet. That's what we did for fine motor activities. I had a couple of people asking me, "Why are you doing cooking with her if she's not going home?" and I said "Well you can use different activities that work on function." I wanted to make it more interesting for her and I know she liked to cook before. Why not use cooking to work on fine motor skills? Why do you have to just use writing, so having that flexibility, being able to adapt activities to the patient's needs. (Nora)*

Gene also described flexibility in planning therapy activities as she considered a client's needs and the related social environment or support systems along with interests as influential variables. She gave an example of a client having difficulties with bathing and meal prep activities but who was able to successfully receive assistance at home for bathing, then cooking is the activity of choice for occupational therapy treatment.

*If they feel that self care isn't important, do something else, like if a patient's interested more in resuming their cooking versus their self care, because (the client says) "My wife can come and wash my back, that's not important." or "They can help me with my feet. I just want to make my gourmet meal again" Let's take them into the kitchen. (Gene)*

In addition, the occupational therapy interviewees also expressed the need to consider multiple financial aspects and remain flexible as these influence therapy and activity choice. Gene noted the influence of insurance providers as they constrain what can be done.

*The insurer for sure because there are some things we just can't do here, whether it be time constraints with PPS or dollar constraints with PPS and managed care. It's awful to say. (Gene)*

Gene pointed out that the changes in reimbursement guidelines from the old fee for service plan to the prospective payment system (PPS) has influenced intervention and also called for the need to be flexible in designing intervention. Nora's report agreed with Gene's account regarding the time constraints of the prospective payment system noting that with the introduction of PPS, the therapists had to change how long they can work on an activity or skill with a client at one particular time.

*Before, if you took an hour and a half to two hours to work with a patient to work on one activity, one skill, you did it. Now you're still going to work with that patient to work on the same activity, the same skill, to improve the skill, to maximize that skill, but you're just going to have less time to do it. (Nora)*

Nora, being flexible with the impact of PPS, expressed that she expects treatment delivery may change somewhat to use more group therapy to meet client's needs.

*I guess what will happen actually, which will be nice, is that we'll go back to doing groups again. I think they're really beneficial. Groups are really beneficial. You know individual treatment is very important but I think groups are important too. So there are some pros and cons to it (PPS). (Nora)*

Nora recognized the benefits of using groups as well as individual therapy. Her willingness to see advantages to both service delivery models reflects her true flexibility in thinking.

Gene emphasized the need to be flexible and take client's personal financial constraints into consideration. She sarcastically stated that it was great to report independence in self-care, but if the equipment isn't affordable for a family at home, the person is no longer "independent".

*Making sure what we recommend is still within the budget of the family. Because it's great when you say "Oh the patient is independent" but they have a tub seat, they have the toilet seat (raised), and they have grab bars, and they can't get that at home. (Gene)*

Gene acknowledged that occupational therapy recommendations and a client's level of independence may hinge upon the client's financial situation. Gene recognized that she needed to be flexible in her intervention and recommendations and considered the client's current financial influences, occupational performance, and her future environmental demands.

Gene was also flexible in remaining open to other possible influences to Mrs. Apple's case including her past occupational routine as well as her future physical and social discharge environment. Gene states she would "play out how it correlates to your (the client's) home".

*We can talk about her routine at home and how we can adapt this situation to be closer to what she's doing at home. If she feels that there's not enough room in her vanity or she can't move a chair up close or if she decides she'll have enough strength to stand at the sink. (Gene)*

Gene explained she was investigating her client's previous routine and determining if any changes needed to be made based on her current performance yet considering her future environment.

The occupational therapy interviewees also described flexibility in where they conducted therapy. Therapists identified that their environment should match the activity, for example dressing in a bedroom. Kathy gave examples of treatment settings for Mrs. Apple.

*A 'functional setting', the bedroom, the shower, the bathroom, the kitchen areas (Kathy)*

Kathy further explained that she chose these particular settings because the task would feel more "purposeful" if done in the typical setting.

*That's what she's returning to and I just want to make it as functional for her as possible. I mean I can do dressing in the gym, putting the sweater on, but it doesn't have as much meaning to her and I want her to feel that it's purposeful to her and that she'll stay connected to the program. (Kathy)*

Kathy also considered the client's previous routines of where she performed activities and where certain activities are typically performed in an effort to make therapy meaningful to the client.

The occupational therapy interviewees related that the need for flexibility also related to family involvement in treatment. Previous information regarding the family-client relationship, before the client's injury and projected after the client's discharge from SNF is useful in deciding whether or not the family should be encouraged to be highly involved in occupational therapy treatment sessions. Kathy reported that she would encourage family involvement if they were going to be helping after discharge and if the client was in agreement with their involvement.

*If her family was available, some families come in daily, or if family was there, I'd include them in the treatment time, a long as that was something that Mrs. Apple felt comfortable with. And if it was somebody who was actually going to be assisting her with something at home then I would make a strong pitch for making sure that they were there and were involved in the treatment so that they could see what she was doing. (Kathy)*

Nora also discussed the need to include family in therapy, to keep them informed about progress and to teach them about how they can support the client at home.

*Family involvement is important, family support, especially if you're going to be doing any kind of care giver education, and again that kind of goes hand in hand with the setting she's returning to and whether she's going back to live on her own or if she's going back with family members. ...Definitely, I would include family members all the time. I feel it's important. To actually come in and actually observe a treatment session. And then sometimes it involves them (family) then absolutely. Invite them in and show them what the person's able to do and where we (OT and client) are at in our treatment session. And then whatever we have to work on, if that's something that they need to take on as a responsibility. (Nora)*

Gene also emphasized family involvement in occupational therapy treatment if it were applicable and added that a family member has another perspective to offer.

*If there were other family members that are involved, like her son, he would definitely, I would hope, definitely be involved in her treatment here. So we'd have him in the gym with us. We'd have him seeing how she uses adaptive equipment, showing him how to use the equipment, having actual interviews with him about the household, getting some perspective from him. (Gene)*

Flexibility was also important to the occupational therapy interviewees when determining what type of intervention approach would best help Mrs. Apple to reach her goals. It could be one or more of many methods including adaptation of an environment, compensatory techniques when performing a task, and/or restoration of the client's capabilities. Gene, during a discussion about a comparison of occupational therapy and physical therapy, was very clear that she will use whatever approach will work to facilitate her client in reaching the goals. She emphasized the goal of having her client be able to perform the activity, regardless of the client's body capacity. Unlike physical therapy she will use compensatory techniques to help Mrs. Apple achieve the goal if needed.

*I'm working on things like balance by reaching into a cabinet*



*because I want to make sure they can put their groceries away without falling on their face. Or bringing something out of the stove. So of course I'm having them do stuff in the parallel bars because right now they can't do that at home. I don't care that you're (PT) working of the strength of that leg versus the other leg, and the strength of their trunk and Yeah, I see that, I'm able to assess that but that's not what my focus is right now. I don't care if they have compensatory strategies just to be able to do it. (Gene)*

Gene noted some possible overlap where occupational therapists may use the parallel bars that are often used during physical therapy intervention. However, Gene clarified that she is using the parallel bars for restoration of balance to achieve safe performance of a specific activity. She identified that she would also try an additional approach, using compensatory strategies to further enhance her client's ability to complete the activity. Gene later stated that flexibility is a typical trait for occupational therapists.

*The biggest thing, we always say we're so flexible, because we're capable of going beyond what was scheduled to try something else because it's just not working. There are some disciplines that need to be very anal and very structured. (Gene)*

Gene acknowledged that some disciplines are much more structured, but that the flexibility of occupational therapy is part of what distinguishes the discipline from others.

Because of the client centered approach, the occupational therapists were directed to be naturally flexible. With occupational therapy intervention there was not a set sequence or list of things to address. Upon initially meeting, or in this case learning about the case study client, the occupational therapists knew the emphasis will be on occupation. However, they did not know which occupations, what the related problems were, how the problems would be

addressed. All of this was unknown. These occupations would be identified by the client through the initial interview and evaluation process. Progression of intervention was primarily driven by the client with his/her reaction to intervention. The occupational therapists expressed the need to be capable of a great deal of flexibility in structuring occupational therapy intervention as it changes with each client. They also expressed this need for flexibility as it related to incorporating the psychological aspects of clients, as these change occupational therapy intervention at any time during its course with the client or even within one session. In maintaining the occupational emphasis, the occupational therapists also reported remaining flexible when choosing the approach to intervention, using whatever approach or combination that enables the client to attain the ultimate goal of performing the occupations the client originally identified.

The client centered focus of occupational therapy intervention that the occupational therapists portrayed also naturally encompassed a motivational aspect. The inclusion of the client's ideas for goals, their interests, and natural contexts of performance made the intervention more meaningful and purposeful, motivated the client, and enhanced the likelihood of participation.

The occupational therapists interviewed all discussed the importance of motivating clients. They shared different techniques they used to motivate their clients. They drew upon the information gathered during the initial interview and during the collection of Mrs. Apple's past story to help identify a successful means to motivate her. They also used techniques that had worked in the past with other clients. By knowing and drawing upon the client's past interests,

strengths, and coping skills, the method of encouragement was more specific to the client and thus more successful in motivating the client.

The occupational therapists related examples of drawing upon a client's past experiences of dealing with difficulties and hardships to help them through current challenges that arose. Kathy explained that she could use a previous story the client may have shared about recovering from a past tragedy to motivate her client.

*It could be something like her telling me her life story and it could be a time where she's having a really rough day and I can go back into her memory, you know into her past, and say "Remember the time when this tragedy happened to you and how difficult that was and remember you got through it and remember how you got through it and your family was there, and we're here for you so you're going to work through this too." (Kathy)*

Kathy reminded her client of coping skills she had used in the past. She highlighted the support she had at that time from her family and pointed out that the staff are there for her now as her family had been before and that she was not alone. She emphasized the client's success of overcoming a previous challenge and encouraged her to work through a current challenge. Gene used a similar tactic when she focused on Mrs. Apple's ability to cope when she had endured other life changes and used this as a motivating tool.

*Yes, I know it's a change in your routine, but you've changed your whole life. You've developed all these things, had all these life changes. Your husband has passed and you went through that and you're still strong. And you're still active, and you have your dog to keep you company. (Gene)*

Gene also mentioned the client's dog to emphasize that she will not be alone in the future. She pointed out the more positive aspects of the client's future story

helping Mrs. Apple build her future.

Gene not only used the client's past but also drew upon her own past experiences as an occupational therapist and possibly in her personal life and gave an example of what she might use as a motivator.

*I find that applying faith, if people get really depressed, you might say "but God will only give you a challenge that you can handle". Stuff like that if that's something that she benefits from, applying that. I try to say "Of course God is smiling on you; today he brought you sunshine." (Gene)*

Gene discussed motivating the client with the support of religion and faith and a more positive focus. She did this because of her work with other older adults and understanding of the importance faith has for many.

Kathy also discussed how to motivate a client who didn't want to get washed or dressed by offering her a shower, instead of a sponge bath, which she thought might be more of an interest to her.

*If she's not wanting to be involved in ADLs, I'd want to know why, what's going on...what's the cause of it. ...I'd find out what part of the ADL she really wanted to get involved in. Like "Geeze, do you want to take a shower today? Wouldn't it be great today?" So kind of get around at least bathing that way. As far as dressing goes, I'd want to make sure that whatever she had available to her would be something she felt comfortable wearing. (Kathy)*

Kathy drew the client into the discussion to attempt to uncover the barriers to the client's participation in an effort to remove them. Kathy reported using something like a shower that the client may find important or more meaningful to her, or may just find more appealing.

Gene talked about the use of the Canadian Occupational Performance Measure (COPM) (Law, et al., 1994) as mentioned earlier, to more clearly

identify the client's interests.

*We can use things like the COPM to help them structure to identify their goals or what their preferences were before. (Gene)*

Gene reported it was important to learn about the client's interests for treatment and she related how she used the resulting information not only for treatment planning but also as a means for motivation.

*It's definitely a priority. If they feel that self care isn't that important at the beginning, do something else. Like if a patient's interested more in resuming their cooking, versus their self care, let's take them into the kitchen, and when they're back to that (cooking) then when they're feeling better, let's say "Well look, you were able to pick that pan up out of the bottom cabinet, let's see how you do putting your shoes on because you're still reaching just as low." Because someone might have a barrier in the front of their mind and not think that they are capable of doing something. (Gene)*

Gene displayed a concern for the client's perception of meaningful activities as well as educating the client about other activities to include in therapy that may be useful to her in the future. Gene used the client's interest in cooking to motivate her to then participate in other activities.

The three occupational therapists used a variety of methods to remove any barriers to progress that might be present due to a lack of motivation. Many of the techniques relied on the gathering of the client's past story and being in tune to the client's response to her injury/ surgery and therapy. The value of motivating the client emerged from all three occupational therapy interview discussions.

### **Overall Summary of Occupational Therapy Results**

In summary of the occupational therapy results, the most prominent theme that emerged was identified as a primary focus on the client and his/her

occupations. All aspects of intervention reflected the specifics of the client being addressed, in this case Mrs. Apple. Because each person is different and unique, the occupational therapists gathered extensive information about Mrs. Apple in an effort to understand her and her life. This information was then used to ensure occupational therapy intervention accurately reflected Mrs. Apple herself. Due to this occupational therapy value to reflect each client's individuality in intervention, it seemed only natural, that an emphasis was placed on flexibility of occupational therapy intervention, a secondary theme identified. This flexibility was portrayed by occupational therapy efforts to continuously tailor the occupational therapy program to reflect Mrs. Apple's personal and contextual situation. Flexibility was also demonstrated with the different treatment approaches taken: Remediation, adaptation of task and/or environment, or compensation of technique, to address an occupational problem and enhance progress toward the client's goals. This flexibility and the information, about the client and his/her unique situation were two tools also used as a motivational tool to encourage Mrs. Apple throughout her rehabilitation and recovery, the other secondary emphasis noted from the data. The occupational therapists valued the client's performance of tasks and engagement in occupation and in correlation also valued the motivational aspects of occupational therapy intervention.

### **Occupational Therapists Describe Their Role**

Each of the occupational therapists described their roles as well as the opposite discipline's roles when working together. This line of questioning further

enabled the occupational therapists to describe themselves as unique parts of a team, with roles and foci of intervention that differed from the physical therapists on the team. The results were congruent with the results of data gathered from the questions regarding the case study thus further supporting the analysis of the case study results.

The occupational therapy interviewees reported the client and related occupational tasks as the main focus of occupational therapy intervention. The occupational therapy interviewees did not delineate specific tasks as a focus for intervention but instead commented on the wide holistic span of occupational therapy intervention. Nora, as quoted earlier, shared this same thought relating the idea of the holistic nature and client centered focus of occupational therapy intervention.

*We look at everything in OT. It's just the way we are trained. You have to be able to take in everything and just constantly filter data and adjust it and communicate. That's what OT's are all about, is looking at the person as a whole and not a disease. (Nora)*

Gene gave information explaining more about what she is thinking and perceiving at any encounter with a client. This information further supports the holistic approach that Nora had described and takes into consideration that a client's environment and mind set can have an impact upon treatment outcomes.

*People function based on routines, and when there's a change there's a total loss of structure there's the total loss of coping strategies. And one little thing can set someone off. It's like being a detective. You are constantly the detective and not one day is the same as the next. You know something might be off: They might not have their hearing aid; they might not have their glasses; they may have had a death in the family; the dog may have hid under the bed and didn't want to see them. I mean it could be anything. They could have dropped their call light the night before*

*and wet the bed because they could not get up quick enough. You know anything could change what happens the next day or the next treatment session. And I think everyone's coming to realize that, but it's something that actively has to be taken into consideration. That's something that OT has always had in their philosophy for years. I think that's why we're (OT's) capable of bringing in the psychosocial component in our everyday treatment.*  
(Gene)

Gene further emphasized that this approach, including the consideration of many impacting psychological factors has historically been part of occupational therapy. Nora also emphasized the psychosocial aspects as permeating all of occupational therapy intervention when she said "*There's not one part of OT that's not psychosocial*". The occupational therapists view their roles as very holistic including both the mind and the body and including context.

The occupational therapists also described their role by identifying the ultimate goal for occupational therapy clients as returning them to their prior level of functioning. Kathy stated this goal when discussing Mrs. Apple's case.

*As the OT, it was my job to help her to get back to her prior status safely, to get her back to perform for herself, and back into her life again.* (Kathy)

Kathy, as well as the other occupational therapists, had an ultimate goal of helping the client return to a productive, happy life.

The occupational therapists also noted a typical point for occupational therapy was the emphasis on occupation as intervention and goal. Kathy continued her statement above with an explanation of how occupational therapy practitioners would use purposeful meaningful activity, or occupation, as the method of intervention.

*And the way we (OT) would do that (reach the goal) is actually*



*have her do the activities that she did at home in this setting. We would try to adapt them as much as possible to make them like home, for example rolling the bed down so it's flat and practicing getting out of bed with the bed flat and no arm rails around it. And then also talking about what kinds of things she enjoys doing, which gives me treatment ideas that will engage her in purposeful activity. And involving the family members or loved ones in those activities, if that's something that had been happening prior to admission or that was something that she was feeling motivated to do. (Kathy)*

### **Occupational Therapists Describe the Difference**

The occupational therapists also recognized some areas of overlap with physical therapy and identified these as transfers, stairs, and balance. The occupational therapists negated possible duplication of services by explaining the differences foci for these potentially perceived overlapping areas that related to mobility. They maintained that they were not focusing on mobility but on occupation. Nora explained that with toilet transfers, the occupational therapist is focusing on the client actually accessing the toilet as a step within the functional task of toileting. The physical therapists focuses on the physical capability of moving from sitting to standing or the mobility aspect of the transfer alone.

*We always try to aim for function, so you know when you say a toilet transfer, we're really looking at toilet transfers we're specifying that it's a toilet transfer where PT is just working on transfers in general and that may be a sit to stand. We look at the whole transfer as a whole. And we break it down into tasks, but our ultimate goal is the whole transfer. We look at the whole task. (Nora)*

Nora acknowledged that both occupational therapy and physical therapy work with clients regarding transfers. Nora pointed out that occupational therapists are working on the whole task of toileting that includes a toilet transfer. Nora

also suggested that physical therapy is different because they are focused on the mechanics of transfers in general.

Gene gave further examples of how occupational therapy and physical therapy look similar at first, but the meaning underlying the treatment session, and the overall focus of the session is completely different, thus continuing to negate the possibility of a duplication of services. These examples also highlighted an occupational focus as the main difference. Gene reported the occupation of caring for a dog as the reason for performing mobility tasks. She also discussed that a physical therapist may be seen performing the same mobility task, like stepping up a curb, but with a purpose of increasing muscle strength.

*They'll (PT) do environmental access, which you might see an OT doing that but for a different reason. We have to know that they have to step over a curb to get to the doghouse, so I'll do that only on that level of thinking, saying that it's strictly functional, I have to do this (access the dog house) versus they need to have the quad strength to step up. (Gene)*

Gene pointed out that occupational therapy and physical therapy may both look at ambulation including stepping over a curb for example. However, occupational therapy would include this in a broader focus of caring for a pet if the curb was in the client's home environment and part of that task. Gene suggested the physical therapist is doing environmental access but more for purposes of identifying a client's muscle strength capabilities. Gene gave more examples of sessions that may appear to be overlapping but when considering the main emphasis and focus of the treatment session, the thought of overlap is vanished. Specifically she discussed the goal of balance, which physical therapy

may work on as it relates to mobility. Gene explained that her reason for doing balance training in parallel bars was to facilitate improvement in home living skills. Her reason was occupation focused.

*I am working on balance by reaching into a cabinet because I want to make sure they can put away their groceries without falling, or bring something out of the stove. So of course I'm having them do stuff in the parallel bars because right now they can't do that (put away groceries) at home. (Gene)*

Gene discussed that an occupational therapist might work with a client in the parallel bars on balance skills, explaining that the occupational therapist is engaging the client in pre-occupational tasks to improve on a task that the client cannot yet safely begin to perform even for training.

The occupational therapist interviewees reported a focus on functional or occupational tasks with an emphasis on those occupations deemed important by the particular client. All three occupational therapy practitioners discussed examples of overlap, but negated duplication of services when explaining the purpose and focus of their treatment sessions in further detail. Even these explanations given by the occupational therapists about their perception of themselves and their role continued to depict the occupational focus for occupational therapy.

The results noted from this line of questioning in the interviews, asking the occupational therapists to describe their own and the physical therapists' roles, also mirrored the previous data collected regarding intervention with the case study client. The results from the data regarding Mrs. Apple show occupational therapy's role as centered around the client with an emphasis on occupation and

thinking holistically. The occupational therapy interviewees also defined what they perceived as their own roles with similar descriptions and congruent points, occupation, client centered, and holistic.

The occupational interviewees in general answered the interview questions giving a lot of conditional responses: 'If this is the situation, then this is my answer but if it is different then this is my answer'. They qualified that the answer was at times dependent upon a particular characteristic and if that changed, the answer changed. These types of answers lead to more occupational therapy interview data. The physical therapy interviewees generally gave brief, succinct answers and didn't elaborate even when prompted except to primarily repeat previous information. The data from the physical therapy interviewees however, was easily grouped, categorized and fell into themes.

### **Physical Therapy**

The physical therapists, although they asked some questions about the client's past and future, they did not display a focus centered around the client and her story. The physical therapists, unlike the occupational therapists, did not mention the need to be flexible in their intervention. They actually made references to the idea of having recipes for clients and that the exercises used in intervention for all clients with a hip replacements would be quite similar. The physical therapists also rarely spoke about the need to motivate a client through therapy intervention. They at times referred to determining if a client was motivated to participate during the evaluation phase but did not discuss in length methods each may use to motivate Mrs. Apple to participate except one physical

therapist mentioned, for the use of humor as she felt it was always necessary to have a sense of humor.

The physical therapists' interview data revealed a primary focus on mobility. Their assessment addressed mobility issues as did their described intervention. Supporting themes, related to mobility, were also strong. These themes included range of motion (ROM) and strength. Additional themes that emerged included a concern with pain and cognition, again associated with mobility. Also, a group of terms the physical therapists frequently used included 'safety', 'client centered', and 'function'.

### **Mobility**

The client's mobility emerged as a primary concern and focus for physical therapy. All three of the physical therapy interviewees concisely identified and emphasized a primary focus on mobility. Wendy directly stated her concern with mobility as the primary area of dysfunction she would typically address.

*I guess the biggest thing is the mobility, if we can get her walking and transferring safely and whatever she would need that's the primary thing. Whatever she would need, if stairs were involved then we'd have to do stairs. (Wendy)*

Wendy emphasized the primary role of physical therapy was to address mobility and further qualified mobility to include both walking and transfers as well as stairs if the client had to do stairs at home. Wendy later explained mobility in more detail as anything the client does to get somewhere.

*Anything that she (the client) needs to get across the room, so getting out of the chair, getting into the bathroom, getting out of the bed into the chair, and walking. (Wendy)*

In this statement Wendy gave a more functional description of mobility including

descriptions of mobility tasks performed throughout a typical day. Tracy specified her primary focus on mobility in one succinct sentence.

*My priorities again would be to maximize independence with functional mobility with her because she was such an independent person. (Tracy)*

Tracy, in this statement, also acknowledged that her client had been independent previously and that was why she was expecting to maximize an independent level of mobility in her physical therapy program as well. Tracy later listed the primary areas of mobility that she would focus in physical therapy.

*Functional mobility, bed mobility, transfers, gait. Anything that's going to enable her to function at home. But the touch down weight bearing is going to be a factor too, a significant factor, especially on the stairs, so, making sure that she can maintain the touch down weight bearing. If she can't she might need to look at installing a ramp or something like that, but some type of mobility, it might not be gait if she can't maintain that weight bearing. It could be wheel chair mobility. (Tracy)*

Here, Tracy continued a primary focus on mobility even if Mrs. Apple isn't yet able to bear weight through her hip and added wheel chair mobility to her description. Angela also succinctly lists a primary focus on mobility but gave a broader description adding that this mobility included bed mobility, ambulation, and the use of a device.

*Getting in and out of bed, transferring, ambulating, and making sure she's doing it safely with the appropriate device. (Angela)*

Angela clarified her description of a mobility focus to include bed mobility as well as transfers and ambulation. She also included qualifying factors of safety and device choice with mobility.

Mobility as described by all three physical therapy interviewees included

anything the client had to do to get somewhere for example: ambulation/walking, mobilizing a wheelchair, transferring, and bed mobility. These mobility tasks are performed by the client throughout a typical day and can include the use of a device and can be qualified as safe or unsafe. The three physical therapy interviewees reiterated this mobility focus as the typical intervention for a client with a hip replacement and that it would include all of these aspects of mobility.

The physical therapy interviewees' concern with mobility was emphasized in their line of questioning to gather information regarding the client's past. The focus here revolved around the mobility demands of the previous environment. A common thread in the physical therapy interviewee questions aimed at learning more about the physical set up of the home environment, as it related to mobility needs. All three physical therapy interviewees inquired about stairs at the client's home and accessibility. Leann portrayed this inquiry best with many of these questions grouped together in a sequence.

*Does she have stairs going into her home? Was she going up and down the stairs alone? With a railing? Does she have a bedroom and bathroom on the same floor? A one level home? (Angela)*

Angela identified whether the client walked up and down stairs previously as well as considered her needs when she returned home. Angela wanted information about the physical home set up to identify the client's past mobility performance and future mobility needs. All three physical therapists asked similar questions regarding the client's type of home and whether or not she had any stairs at her home.

The physical therapy interviewees also sought information regarding the

client's functional level prior to injury and during the hospital stay, but again with specific concentration on mobility and ambulation. Terri asked about her level of function related to specific mobility tasks.

*Was she independent with gait? Did she drive? and What was her discharge status with her ambulation? (Terri)*

Terri asked initially about the client's mobility status at home and then at time of discharge from the hospital.

All three physical therapists asked short direct questions regarding the client's prior status. Any additional questions they had about the client focused on gaining more information regarding the client's mobility. Even when presented with information regarding past level of ability relating to other tasks, the physical therapists continued to pull out and highlight data related to mobility. For example, Terri asked about the client's prior status and she was given information about the client's level of independence with ADLs and mobility. Terri then asked more questions in an attempt to clarify why Mrs. Apple wasn't able to gather her clothing, but no questions revolved around the need for maximal assistance at the hospital to get dressed.

*What was her discharge status (at the hospital) for ambulation?*

The client's discharge status for ambulation was contact guard, for about fifty feet with a rolling walker. She wasn't able to set up anything herself for ADLs.

*Did they indicate in the discharge summary why?*

She tires easily and quickly.

*Her ADLs? (discharge status)*

ADLs, upper extremity she was independent, lower extremity she required pretty much moderate to maximal assistance overall.

*Ok so now I have her status at discharge from the hospital. (Terri)*

Terri, gaining additional information regarding prior adl status at the hospital from



previous questioning did not ask clarifying questions except regarding the mobility aspects of the task.

The physical therapists also asked clarifying questions aimed at discovering if the client utilized any adaptive equipment for mobility prior to hospitalization. Angela asked succinctly if Mrs. Apple used any ambulatory device at home.

*What was she doing at home, was she using a device at all for ambulation? (Angela)*

The physical therapy focus on mobility started with the inquiry into the client's past as they looked for information to further describe and qualify the client's previous mobility. In doing this the physical therapists sought information regarding past environment set up related to mobility as well as descriptive information regarding prior mobility performance such as gait, ambulation, transfers and devices used if any.

The physical therapists also asked questions regarding the surgical procedure used, related precautions, and weight bearing status for the involved lower extremity. Maura, asked right away about the surgical procedure.

*First thing I want to know is what type of hip was done? Posterior or anterior? Her weight bearing status? (Maura)*

Maura wanted to know the approach of surgery to determine related precautions.

Both Terri and Angela asked similar questions about the type of surgery. Terri listed her questions and briefly discussed her reasoning.

*What type of total hip was she? Was she a hemiarthroplasty? Was she a bipolar hip? Did they cement or is it un-cemented? Since it's a hemiarthroplasty, her weight bearing status is full weight bearing, weight bearing as tolerated? Ok, so I'm going to assume that's*

*probably an un-cemented prosthesis since she's touch down weight bearing. (Terri)*

Terri asked the questions about the surgical procedure to determine the client's weight bearing status. The answers would help her determine the impact of surgery on the client's mobility potential and to design her physical therapy intervention. Depending on the surgical procedure used, there are mobility precautions to follow. Maura expanded on these precautions and indicated what she would do in therapy and that she would train other staff to move her client.

*Well, the first thing is the hip, I'd need to know her weight bearing and type of hip because the type of hip is the precautions, so I need to know what her precautions are so we can train her. I know them if I know posterior. Posterior tells me what kind of precautions she has. So I have to tell her the precautions, make sure she knows them and if she doesn't, review them and train her in them and also we have to know how to move her safely and to tell the nursing staff. So I want to know that. I need to know the weight bearing for the same reason. Make sure she knows it and everybody else knows it. (Maura)*

Maura described the importance of having the information about the type of hip surgery done as it would significantly impact her role in training the client and staff regarding mobility. The physical therapy interviewees reported they would teach the client to follow these precautions but specifically during ambulation, transfers, and mobility. Maura described how she addressed teaching the client precautions.

*I'd review the precautions with her, say them to her, and review them with her before she did anything but as she did all mobility things, that would be part of it as she's moving. You don't always realize with each different type of transfer, so that would be ongoing. (Maura)*

Maura emphasized that training the client in her precautions would take place

with mobility tasks.

This information regarding surgical procedure and related precautions was sought out by each of the physical therapists at the beginning of the interview thus accentuating its importance. The information was used to determine related precautions and weight bearing status which were taught during mobility tasks in intervention as well as evaluated during the initial encounter with the client.

This information about the client's prior level of function and type of surgery helped the physical therapists determine specifics that would be emphasized with mobility tasks for the client during intervention. The type of information gathered and how it was used reflected the PT focus on mobility even at this beginning phase of intervention. The PTs discussed the process of evaluation of Mrs. Apple and continued with a mobility emphasis.

The physical therapists all chose mobility tasks as primary areas for evaluation. Terri reported a list of things that she would evaluate but her first concern was regarding mobility.

*What I'd want to look at when I first saw her, I'd look at bed mobility, her transfers, range of motion in her hip, look at how she is with following hip precautions, I'd check and see how she is with her memory and precautions that they had taught her in the hospital. (Terri)*

Maura also wanted to specifically know the level of the mobility the client was able to perform. She also shared she would look for this information first, giving it importance. Maura explained her process of gathering this mobility information.

*I would probably want to know about her. Well I would want to know her current level of mobility, probably the first thing about her. ...The next thing would be, well, in between, would be just basic bed mobility, seeing what she needs help with, transfers, do transfers and ambulation. One to have her do it so she's practicing and we're teaching her how to do everything, but also just watching what she already knows from the hospital gives me an idea of where we're starting from. It kind of gives me an idea of how fast she'll go and also what we'll need to do. (Maura)*

Maura wanted to be able to see Mrs. Apple perform mobility tasks including bed mobility, transfers, and ambulation for her physical therapy assessment. She reported she would look at what the client recalls from the hospital setting as well as continue teaching her how to mobilize.

The client's ability to perform bed mobility, transfers, and ambulation were all important tasks to be assessed upon initial evaluation. These tasks were all addressed by each of the physical therapists when they discussed their evaluation procedures. Some things the physical therapists mentioned they would note during the mobility assessment included the extent of adherence to precautions and weight bearing status, the need for any ambulatory devices throughout ambulation and transfers, and the amount of assistance needed, or level of independence.

Terri, Angela, and Maura discussed how they included the observation of the client's memory with regard to the use of hip precautions in their evaluation. Angela wanted to ensure Mrs. Apple would remember and use hip precaution information.

*I would look at her cognitive status to make sure she is going to be ok with hip precautions. ...When I go into the room I talk to her, get a feel for where she's at and what she feels comfortable at, and how she is cognitively, to see how much I can get out of her at first,*

*how willing she is to move. If she's all over the place with her leg, making sure that she's not getting out of precautions. (Angela)*

Angela initiated her evaluation of the client's use of hip precautions in the context of bed mobility or in other words in a mobility context. Angela referred to when the client moved her operated leg to get herself out of the bed, if the client was "all over the place with her leg" she would be noting the initial lack of adherence to hip precautions. The use of these precautions further qualified the client's mobility performance. Terri, in an earlier quote also wanted to "look at how she is with following hip precautions" during the initial stages of her evaluation of the client's mobility.

Other quality indicators during the physical therapy mobility assessment included the use of assistance from staff or from adaptive ambulatory devices. Angela, after listing tasks she would evaluate, explains that she looks for the use of these items to further clarify the client's mobility abilities and needs.

*Getting in and out of bed, transferring, ambulating, and making sure she's doing it safely with the appropriate ambulatory device. (Angela)*

All three physical therapists focused on the level of performance the client is able to complete in mobility tasks for their evaluation. They also qualify this performance with observations of adherence to hip precautions and the use of assistance and/or an ambulatory device. They use this information along with results from the interview focused on home set up and prior mobility status.

This primary focus on mobility initially expressed in the interview and evaluation phases was also reflected in the physical therapy goals. All three physical therapy interviewees reported long term goals for the client were to

return back home at the same level as prior to her injury. Terri wanted to get her back to *“the highest baseline possible for discharge home”*. Angela also stated her long term goals were for her client to *“return home safely at the same level she was prior to falling at home”*. Maura reported she expected her goals in physical therapy would be to return the client back to independence, especially a client with a hip replacement

*Somebody with a hip, I'd expect her to return to independent, pretty much the same level she started. (Maura)*

When questioned further, it became clear that the 'same level' and 'independent' was actually in reference to a focus on mobility. More specific goal examples given by Angela portrayed this mobility focus.

*She would be able to ambulate up and down the stairs independently, probably if she was leaving the SNF facility, independently with one rail and a straight cane or two rails, that would be optimal, step to step, getting in and out of bed independently, being able to transfer independently from different surfaces to make sure she's ok with that, making sure she can deal with other components, other than just walking the straight pathways, that she's not distracted too much, and things like that. (Angela)*

Angela shared her goals for this client that focused on ambulation and transfers, both part of mobility as earlier defined by physical therapy. The 'same level' the three physical therapists referred to above was that Mrs. Apple could perform these mobility tasks at the same level of independence that she did prior to her injury. This mobility level for Mrs. Apple was independent. Maura also listed mobility for goals with Mrs. Apple. However, Maura's use of the word level here referred to different walking surfaces.

*I'd want her independent with a device on all levels so she could*

*return home. And I'd also want independent transfers, independent with all transfers, like toilet, bed to chair, so all transfers and independent ambulation. (Maura)*

Maura maintains her mobility goals for Mrs. Apple at an independent level the same as she was prior to her injury. Terri also reported independent mobility as her goal for this client.

*Basically I always ask what their goals are and her goals were to achieve anything she can to return to independent mobility. (Terri)*

Terri's statement regarding goals for physical therapy intervention for this client reflected her incorporation of what she gathered from the interview previously as the client's goal, but the focus remained on mobility.

The focus of the physical therapy goals was clearly on the performance of different areas of mobility including in bed mobility, transfers, and ambulation, as well as ambulation on different surfaces. The 'same level' referred to the ability of the client to mobilize prior to her injury and did not infer the inclusion of any other tasks.

The treatment activities chosen by the three physical therapy interviewees for the case study client also included the same focus on mobility. Examples of this were relayed by all three physical therapy interviewees and included activities similar to those reported for evaluation. Angela listed the three consistent areas of mobility that she would focus on for treatment activities.

*Well after the evaluation, looking at whatever level she's at, continue to work on bed mobility, transfers, ambulation, work on some general ROM, strengthening, reinforcing hip precautions, and as she advances, challenge her more, a regular environment where people are walking around and she had to maneuver around things in her room. (Angela)*

The initial treatment activities Angela listed are the three areas the physical therapists used to define mobility. Angela explained she would grade the activities by having the client perform them in a more functional environment adding people and other obstacles. Angela explained later in the interview that the treatment focus now, with insurance changes is less on strengthening and more on function.

*Well, I think the way health insurance is now, our goal is to get them as functional as possible. So really function is a big thing now. You still work on strengthening cuz you have to but a lot of it is ambulation, transfers, stairs, anything that's going to be at her home that we can practice here before she goes home. (Angela)*

Angela acknowledged that her treatment program has changed from a strengthening focus more of an emphasis on practicing mobility tasks, which are also used to improve strength. Maura explained her treatment program for a client like Mrs. Apple.

*She would have ROM passive and active, she'd have strengthening program, she'd have training in transfers and bed mobility,...and then of course ambulation, progressive, she's toe touch, so depending on how long that stays so we would progress to a cane, she's got stairs so we probably want a cane. We'd be able to do that. So basic progressive ambulation as she could tolerate it as the weight bearing status increases, maybe balance. I'd probably be doing, I'm sure her balance would be off even when she got weight bearing as tolerated just because of weakness, so I'd have some balance things in there, standing balance type of things. (Maura)*

Maura described this program as described above as a typical therapy program she would follow at the SNF setting and the exercises were set up according to the diagnosis.

*With the hip it's kind of almost like, the same exercises everybody gets....It's typical, it's basically the same thing. (Maura)*



Terri identified the treatment activities she would include in her sessions.

*Range of motion, exercises, strengthening exercises, aerobic activities, might do gait on uneven surfaces to challenge her balance, stairs. (Terri)*

Terri further described how she would progress her client toward the mobility goals by including gait on uneven surfaces and stairs in her treatment sessions.

Maura, in her discussion of treatment activities she would prescribe for Mrs.

Apple, described how physical therapy typically progresses a client in therapy.

*Usually we start with straight ambulation and then get to the more advanced where she's got to go over different surfaces and give more of a challenge as she gets better. (Maura)*

Maura, like the other physical therapists also focused on mobility for her treatment activities. She explained that she starts her client with straight ambulation and then also, like Angela challenges her client with different surfaces. Maura explained that different surfaces and stairs would be more of a challenge to progress the client toward the mobility goals.

The client's mobility could also be progressed with the physical therapist choosing and teaching the client how to use an ambulation device like a walker or a cane. Maura, while listing the activities included in her treatment for Mrs.

Apple, reported that she might be able to progress to the use of a cane.

*Training in transfers and bed mobility, ...And then of course ambulation, progressive, she's toe touch, so depending on how long that stays, we would progress to a cane, she's got stairs so we probably want a cane. (Maura)*

Maura, above, explained she might progress the client to a cane depending upon her weight bearing status and considering her home environment if it included

stairs. This statement also depicted a mobility focus in treatment and an emphasis on progression by changing or decreasing the need for an ambulatory device.

Even in their description of physical therapy that the physical therapists reported they would give to Mrs. Apple, their focus continued on mobility. Maura described an example of how she would introduce her role as a physical therapist to her client and emphasized mobility as her focus but used terms the client understood.

*Usually I say "I'm the one that's going to help you walk again." because that's the main thing they identify with and that's usually the one thing they want. Talk about strength and balance, if they can walk then that's what they want. So usually I would say "We're going to help you get your ROM and strength back and we'll help you get back on your feet, teach you how you need to use the walker and get you back so you can get ready to go back home, teach you the things you need to do to go back home. (Maura)*

Maura explained that she would help the client walk so that she could go back home. She included strengthening and ROM exercises as possibilities to improve the client's walking as well as training with a walker.

The physical therapy interviewees clearly depicted a mobility emphasis throughout intervention. Mobility was described as anything the client did to move from one point to another. Mobility could take place in a bed, on the client's feet, or even in a wheelchair. This focus was present when interviewing the client regarding past mobility, evaluating the client's current mobility status, setting mobility related goals, and providing intervention to progress the client with mobility. These physical therapy interviewees have outlined a primary concern and focus on the client's mobility.

Another central, but slightly secondary focus was a concern for the client's strength and range of motion (ROM). This seemed to be a natural focus and was related to the physical therapists' emphasis on progressing the client in mobility. Gains were needed in strength and ROM especially of the client's hip in order to positively affect the ability of the client to mobilize.

### **Strength and Range of Motion**

When asked what areas of dysfunction they typically address, all three physical therapy interviewees reported strength and ROM. This concentration was detected throughout the physical therapists' investigation of prior status, evaluation, and development of treatment activities. Although all three PT interviewees reported strength and ROM of the hip and legs as concentration areas for evaluation and treatment, they interestingly did not report this emphasis in goal setting.

All three physical therapy interviewees asked about the client's physical capabilities prior to her hip injury, about medical history, and about her prior level of activity to determine the client's strength prior to her injury and surgery. The physical therapy interviewees were able to conclude from the client's prior level of activity how her general strength was before surgery as well. Terri made some conclusions after learning the client's history.

*This woman was a very active young 72 year old woman that had done everything independently in the past (Terri)*

Terri, from her line of questioning, learned that Mrs. Apple was previously active and independent, thus giving her an idea of the client's general strength prior to surgery. She now knew, from gathering this information, Mrs. Apple was strong

enough to perform previous mobility tasks at an independent level.

This strength and ROM emphasis was also present throughout discussions regarding the physical therapy evaluation. Maura stated for her evaluation she would want specific information about the client's hip strength and ROM.

*I would need to know her, the hip itself, the basic measurements, like how much she can move it, what her ROM is, and her strength. I need to know what I can expect from her by that but also work what to work on. (Maura)*

With a client who had a THR, Maura assessed the client's body functions of strength and ROM primarily focused on the hip for the evaluation record. Terri supported the collection of the same type of strength and ROM information when she explained what she included in her evaluation.

*I'd check and see how she is with her memory and precautions that they had taught her in the hospital, look at her ROM, upper extremities, low extremities, look at her strength, upper extremities, lower extremities. (Terri)*

Terri listed both upper and lower extremities as being typically assessed for strength and ROM status. Angela also reported her evaluation included the same type of information as she reported she would "*look at her, obviously, her ROM, her strength*" as she was listing the areas she would typically consider with a client like Mrs. Apple. She also listed them again in response to answering what areas of dysfunction she typically addresses. Angela however, didn't specify any part of the body as a focus for evaluation of strength and ROM. Angela shared she would typically consider "*obviously her ROM, her strength*" in physical therapy evaluation. It was also emphasized by all three physical

therapy interviewees during the discussion of the interview and evaluation phases of physical therapy intervention, making it a consensual idea that strength and ROM were obviously included in physical therapy intervention.

The client's strength and ROM prior to surgery was compared to evaluation findings to determine if the client had a significant change in strength due to the onset of the injury or surgery. Physical therapy focused on the impact on the client's strength and ROM, as well as mobility as described earlier. The physical therapy interviewees expected the need for strengthening and ROM due to the diagnosis of a THR and devised an exercise program for the case study client including ROM and strengthening. All three physical therapy reports of treatment activities were congruent on the inclusion of exercise. Maura reported that her therapy program for Mrs. Apple *"would have ROM, passive and active; she'd have strengthening program"*. Maura also reported that she would typically address areas of *"basically the hip"*, *"the strength in the hip and the range of motion"* in her treatment sessions. Terri listed *"ROM, strengthening exercises, aerobic activities"* as first in a sequence of ideas of activities for Mrs. Apple in response to a question of what might some of her treatment activities include in general.

Maura and Terri each succinctly identified *"basically the hip"* verbatim as the specific anatomical area of focus for strengthening and ROM with this client. All three physical therapy interviewees reported these hip strengthening and ROM exercises were basic for someone with hip surgery such as this client's hip replacement. The physical therapy interviewees also expanded on the types of

exercises that were included for someone with hip surgery such as a THR.

Maura clarified an extensive and typical hip protocol which was exercised based and focused on ROM and strengthening.

*With the hip it's kind of almost like, the same exercises everybody gets. I would know from the evaluation how much range and strength we would have to get, but from a hip, it seems like I could repeat all the exercises. We could do passive range, followed by active range, we'd do the basic strengthening starting with what she could do, start with the basic quad sets, ankle pumps. She has the posterior hip so we have to avoid a lot of flexion over 90 (degrees). What we could do is abduction, and extension, we can't do those with the anterior. Probably starting all the exercises in supine and progressing to sitting and going to standing exercises when she could. (Maura)*

Maura explained the basic program she would follow with someone with a THR diagnosis. She further described her progression would include changing the client's position from supine to sitting to standing.

Deficits with strength and ROM noted upon evaluation and related to the THR surgical diagnosis, were typically and consistently addressed in physical therapy treatment with a repertoire of basic therapeutic exercise progressing the client along a continuum to facilitate strengthening. This method of treatment, the use of exercise and the focus on strengthening and ROM was expected and also expressed as typical for the physical therapists.

All three interviewees also wanted to know if the surgery was elective or due to a fall. When they found out the client fell they asked how the client fell. They asked if the fall was related to the environment or the client's body functions. Maura reported, depending on the circumstances, she would use this information to help shape her exercise program. Maura expanded on this,

clarifying her reasoning process when working with clients similar to Mrs. Apple.

*I usually try to find out why they fell, if there's a fracture from a fall, so that kind of gives me an idea if they just tripped over the garden hose, or they have Parkinson's and they fall every week, that kind of helps me too, knowing what I need to do and maybe I need to do some other balance type of exercises which I wouldn't do with someone who's just straight orthopedic. (Maura)*

Maura was searching for more information to qualify Mrs. Apple's previous performance. She wanted to know what may have caused the fall, an environmental condition or a problematic body function related to an underlying disease process. She wanted to be able to address the client's balance in her current exercise program if that indeed was what influenced her fall initially.

Strength and ROM were discussed as a central theme in physical therapy intervention. This secondary focus was portrayed in the physical therapists' interests of the client's strength and ROM prior to surgery, at current, and in the repertoire of exercises used in treatment to address deficits in these two areas. However, strength and ROM were not a focus included in goal setting. The physical therapy intervention program for a client such as Mrs. Apple would typically include strengthening and ROM for possibly all extremities as well as for balance. The emphasis of this exercise program however, centered on the client's hip. This seemed to be a natural focus given the client's diagnosis of THR. This secondary focus, as mentioned before also seemed naturally related to the primary focus on mobility.

These three areas, mobility, strength, and ROM were all the main focuses of physical therapy intervention as discussed with the three physical therapy interviewees in this case. Other themes arose with the physical therapy results

but did not present themselves as a central focus. These themes included an interest in the client's level of pain throughout physical therapy intervention, the client's level of cognition, as well as the recurrent use of three particular terms: safety, client centered, and function. Although none of these areas were of primary concern, they consistently surfaced throughout each interview.

### **Pain and Cognition**

Two other areas of collective interest as expressed by the physical therapy interviewees included a concern for the client's level of pain being experienced and an interest in the client's cognitive abilities. These two areas were emphasized during evaluation and intervention but similar to the strength and ROM focus, not always during goal setting. Pain and cognition were important considerations to determine the ability of the client to participate in the physical therapy program of mobility, strengthening, and ROM exercises.

A pain assessment pre and post exercising assisted the physical therapy interviewees with their main focus of tailoring an exercise program for the client. Maura described an alternative program of PT intervention if the pain is prohibiting basic exercising.

*Sometimes in a facility like this, the pool is a consideration, I usually tell people that we have it here, it's an option, they don't have to go in it. But especially if there's pain, if there's a lot of pain involved then it's a good thing. ...Especially when they know it feels, and the nice warm pool, and they can weight bear in the pool more than they can on land. (Maura)*

Maura explained the benefits of using a pool to manage a client's pain to allow them to participate in her physical therapy program. Pain had the potential to limit the client's participation in physical therapy intervention and therefore was



an area of concern for the physical therapists. Information gathered about the client's pain level was utilized to make recommendations to nursing regarding an effective pain medication regime. Terri illustrated this with her concern about the client's pain.

*I would consider her pain, see how she is feeling with her pain, when the pain is worse, with what activities, and see if she needs something stronger for pain control therapy. (Terri)*

Terri considered the option of more medical management of the client's pain. The physical therapists' focus on the client's pain revolved around identifying options for adapting the physical therapy exercises or using medically managing pain to allow continued participation in the physical therapy program.

Along with a concern for the client's level of pain and how it impacted the client's participation in the physical therapy program, the client's cognitive status was another similar concern. This concern regarding the client's level of cognition emerged with discussion of the evaluation phase of intervention. Maura reported when evaluating cognitive status she doesn't do a formal evaluation.

*I would kind of get an idea of what she's like cognitively. So just going in and speaking to her I would get an idea of how she can answer questions. (Maura)*

Maura reported she would just ask the client questions and see how she answers them. She also expanded on her cognitive assessment techniques discussing how she records observations regarding cognition during the interview of the client's home set up and hospital course.

*I don't really ask questions like "What day is it?" too much unless I get an idea that I'm not sure. Usually I just go in and talk to them*

*and ask them questions about what their home is like and what did you do in the hospital, and I can kind of get an idea. Sometimes if someone is a little iffy then I might ask more probing questions, but I don't usually do too much of that, it's not usually part of my eval. (Maura)*

Maura tested the client's memory, long term and short term, by observing if she could recall information from her remote and recent past. Maura emphasized that a formal cognitive assessment was not typically part of her evaluation.

Leann also didn't conduct a formal evaluation of cognition.

*When I go into the room I talk to her, get a feel for where she's at and what she feels comfortable at, and how she is cognitively. ...I usually just talk with her for a little bit first, see if she's oriented and all that stuff. (Angela)*

Angela gathered information about her client's cognition status through conversation as well. Angela expanded on what she hoped to learn about the client's cognition from her conversations.

*A lot of times I'll just introduce myself and tell her what I'm here for, and sometimes if she doesn't know what I'm talking about that's a good indication. Sometimes I'll just ask her how she's doing, cuz then right away she'll let me know if she's doing good, bad, or not anything. Kind of ask her where she came from and if she knows where she is and kind of get a basic idea of where she is, where she's at (cognitively). (Angela)*

Angela directed her informal assessment to glean information regarding the client's orientation, attention, and level of alertness.

Although informally assessed, two areas of cognition emerged as primary concerns. These two areas observed during the PT evaluation included memory and following directions. Memory, for example, was one area of PT cognitive evaluation, but primarily as it related to the client's ability to remember hip precautions during mobility tasks. Terri reports she'd check the client's memory

by testing recall of information taught in the hospital setting.

*I would see how she is with cognition. It's pretty good, I'd check and see how she is with her memory and precautions that they had taught her in the hospital. (Terri)*

Terri initially acknowledged that Mrs. Apple's cognition is pretty good gathering from the initial information she received, but Terri still related her concern for the client's memory of her hip precautions, not just general memory skills.

The client's ability to follow directions was another cognitive area of concern. Angela listed this cognitive skill as an area of interest when asked what she would typically consider when working with Mrs. Apple.

*I would look at her cognitive status to make sure she is going to be ok with safety and her hip precautions, and I would hope that she's motivated as well, and I'd also want to look at her, obviously her ROM, her strength, her ability to follow instructions. (Angela)*

Listed in this sequence directly after Angela thought of strength and ROM the cognitive skill of following directions may relate to how it would affect the client's ability to follow an exercise program or follow directions for safe and effective mobility techniques.

Cognition, specifically memory and following directions, was considered during the evaluation and in tailoring treatment programs. Cognition was not targeted for improvement through physical therapy intervention, nor was it addressed in goal setting. Results from observations of cognitive skills were used by physical therapy to ensure the client's ability to adhere to hip precautions, remain safe, and possibly follow directions during physical therapy sessions.

In addition to a primary focus on mobility, strength and ROM, with

concerns for pain and cognition, the physical therapists also frequently used three other terms. These terms were reflective of current healthcare trends and their concepts were applied to the constant focus on mobility. These three terms, although broad, were defined by the physical therapists and related to their scope of emphasis on mobility as well. These terms included safety, client centered, and function.

### **Safety**

Throughout the discussions of physical therapy intervention, the client's safety was a recurrent concern that emerged in relation to mobility. Safety meant adherence to hip precautions and weight bearing status, safe use of a device like a cane, walker, or crutches as well as the use of a safe technique during all mobility tasks. Maura and Angela both expressed these concerns for the client's ability to maintain safety. Angela emphasized this concern.

*Making sure that she's safe is a big, big part of it because she fell at home before. (Angela)*

Angela shared the importance of the client's safety especially given that she had fallen at home which is why she required the THR surgery. Angela also expanded on her definition of safety and what the term entails for PT intervention.

*To reinforce hip precautions, to reinforce hand placement, to reinforce just overall awareness of her environment, if she's in the gym versus her room, or sitting out in the lobby area. (Angela)*

Safety as defined by Angela, included adherence to hip precautions, such as not bending the operated hip past ninety degrees, and the use of a safe technique, such as placing hands appropriately when transferring to a chair. It also included

the client's ability to just be aware of her environmental surroundings and being able to maintain precautions and safe technique for transfers. Angela wanted to ensure, no matter the context of transferring from standing to sitting in a chair, the client would remain safe. Safety meant Mrs. Apple knew how to safely and properly transfer to chairs, in whatever environment they were located.

This safety concern was also noted during the physical therapy interviewees' account of their assessment of cognition. The emphasis during the physical therapy interviewees' cognition observations, as noted earlier in this report, was on memory but more specifically memory of safety information related to precautions, ambulation and transfer techniques again reflecting the safety concern.

Angela, in the quote above, related safety to transfers, a task the physical therapists identified as an area of mobility. Safety described in other physical therapy intervention mentioned above related to maintenance of hip precautions also during mobility and also related to safe techniques during mobility. The physical therapists were concerned with safety but as it related to mobility, thus continuing to reflect the primary focus of physical therapy intervention on mobility.

### **Client Centeredness**

A second term illuminated throughout the physical therapists' discussion of intervention was client centeredness. The physical therapy interviewees took into account the uniqueness of the individual client throughout treatment and goal setting. The individual client's prior level of mobility, current mobility

abilities, and discharge mobility needs were all taken into account. All three physical therapy interviewees reported that the individual client's prior status influenced their intervention and specifically goal setting. For example, if the client used an ambulatory device, like a walker or cane prior to the injury and surgery, the recovery goals would reflect this previous level. Angela concisely emphasized the client's individual prior status in goal setting.

*I wouldn't expect her (the client) to go back to what she wasn't doing before. (Angela)*

Angela, in setting goals, expected Mrs. Apple to return to her same previous level, not some arbitrary level decided upon by the therapist. Maura also discussed this client centeredness concern when she shared that her expectations and goals were not influenced by the diagnosis alone but also took into account the individual client's prior level of mobility and current evaluation results. Maura outlined the client centered points that influenced her expected level of mobility that the client would attain.

*What they did before, what their prior level status, and from the evaluation. If it was a stroke that was really bad, they might not be as good as they would be if it was somebody with a hip. Somebody with a hip I'd expect her to return to independent, pretty much the same level she started. (Maura)*

Maura considered the client's previous level and current level of mobility along with the diagnosis in determining the outcomes of physical therapy intervention. Another way the physical therapists reflected the individual client's needs in their intervention was to consider the individual client's discharge environment. Maura gave an example showing the use of information about the client's home environment and discharge mobility needs when planning intervention.

*If stairs were involved (at home) then we'd have to do stairs (in therapy) and if she's going home with a dog, we're really going to have to bring that into our program. (Maura)*

Maura was ready to tailor her physical therapy program to reflect the client's home environment demands of stairs or a dog. Maura gave an example of a treatment session focused on mobility and including going up and down stairs if the client had stairs at home. Maura also shared that goals and expectations also reflect the client's expected discharge environment.

*If somebody's going home with a husband and lots of kids and they're going to help them then we don't have to discharge them at such a high independent level. (Maura)*

Maura expected the client could return home with assistance if it was available instead of continuing at the SNF until she was independent and then discharging to home without assistance.

Another aspect of client centered care was the inclusion of the client and family in goal setting. Angela shared typical questions she would ask her client to include him/her in goal setting.

*What do you want to get out of therapy? What is her (client's) goal and her family's goal? (Angela)*

Angela acknowledged that at times she simply asks the client and/or family to share their goals and expectations. Terri displayed an interest in the client's goals for therapy as well. Terri reviewed an experience she had that taught her the importance of client centered goal setting.

*I was sitting for an exam last year and it was on learning styles and patients, and learning styles of teachers, and teaching styles of teachers with the therapist being the teacher. For a week and a half we (herself and her client) were just getting nothing accomplished and what I realized was what I had set as a plan for*

*her wasn't really what she wanted to achieve and we were doing these things that really didn't make any sense to her. So that was really informative for me because I realized that the plan of care, she didn't see what we were doing as accomplishing her goals, so it really taught me that the patient really needs to set the goals. (Terri)*

Terri learned from a class she attended a while after graduating from physical therapy school, that the intervention should have meaning to the client. She acknowledged that if the client sets the goals they are more meaningful and learning is enhanced.

In addition to including the client's goals in physical therapy intervention, the physical therapy interviewees also acknowledged the client's interests. Terri noted that although exercise in the physical therapy program is important, it may not be best.

*You know, therapeutic exercise may help to achieve strengthening, but if the person doesn't see that as something they enjoy doing then that's something that shouldn't be done. (Terri)*

Terri acknowledged she shouldn't use exercise with a client who does not enjoy exercise. All three physical therapy interviewees reported the need to include a client's interests in intervention as a response to dealing with a client who was having difficulty with motivation, compliance, and participation in the physical therapy program. This was accomplished by choosing a different treatment environment to reflect the client's interests. All three physical therapy interviewees gave varied examples including holding ambulation training outside in nice weather or having exercises in a pool. Terri relayed her reasoning and how she might change her program to incorporate her client's interests.

*I would try to find out what was important to her, you know maybe*



*the program we're working on isn't working for her so maybe I might try a different approach, maybe she just wants to do high level gait. You know walking outside. (Terri)*

Terri changed the environment and progressed the client to a higher level, but still focused on mobility.

As the physical therapy interviewees described the need to be client centered they still did not stray from the primary focus on mobility, strength, and ROM. To tailor physical therapy programs the physical therapists ensured the intervention and goals reflected the client's prior level of mobility, individual discharge environmental demands on mobility, the client's and family's goals, as well as the client's interests.

### **Function**

The third term that surfaced repeatedly in discussion was function, but function in respect to mobility, specifically to ambulation and transfers. Angela commented about the impact of health insurance changes influencing the inclusion of function in physical therapy intervention.

*I think the way health insurance is now, our goal is to get them (clients) as functional as possible, so really function is a big thing now, you still work on strengthening cuz you have to, but a lot of it is ambulation, transfers, stairs, anything that's going to be at their home. (Angela)*

Angela acknowledged how her goals changed to include more functional activities. Angela further described her functional focus as including ambulation, transfers, and stairs in addition to non-functional activities like strengthening. She also qualified that these functional mobility tasks should reflect the client's home environment.

Terri explained that when looking at a client performing a transfer, she is assessing this/her function.

*What I'm looking at is just if they can functionally do it. I don't care if it doesn't look perfect, that they're not using the proper technique, what we quote, unquote learned as the proper technique. I'm just looking for safe, independent function. That's the most important thing, it doesn't matter if it doesn't follow what we were taught as the correct way to do things, because a lot of times patients have worked out systems on their own that don't you wouldn't think they would ever work. (Terri)*

Terri qualified a functional transfer is a transfer that is working for the client even if it is not the way she was taught the task should be performed.

Ambulation was termed functional when it simulated the client's expected discharge or home environment. This simulation was achieved in physical therapy intervention by teaching the client to maneuver throughout an environment simulated to reflect the client's home environment. Terri explained how she addressed functional mobility by addressing home environmental needs related to the client's current level of mobility.

*Anything that she (the client), that's going to enable her to function at home. She might need to look at installing a ramp, whatever she would need, if stairs were involved . (Terri)*

Terri emphasized a focus on mobility and not just ambulation as she addressed a possible ramp if she was not able to maneuver stairs. Function in physical therapy related to the inclusion of ambulation and transfers in addition to exercise as well as tailoring training sessions to reflect the client's discharge environment demands.

Safety, client centeredness, and function were all terms each of the three physical therapists used often. However, upon further clarification, although

these terms are broad, the definition of these terms was specific to physical therapy. All three terms reflected the primary mobility focus of physical therapy intervention. Safety related to hip precautions with mobility and use of mobility techniques. Physical therapy intervention was client centered yet again reflected an emphasis on mobility. The client's prior level, discharge environment, goals, and interests were all considered but in the structured context of mobility and therapeutic exercise. Function was also based on mobility as it was related to expanding straight ambulation training to reflect the client's home environment.

### **Overall Summary of Physical Therapy Results**

In review, the three physical therapy interviewees exemplified a primary main focus on mobility. Mobility, more clearly defined by the physical therapists, included ambulation, transfers, and getting in and out of bed. The physical therapy interviewees looked at mobility in depth and addressed the level of assistance needed, the need for an ambulatory device, balance, and the use of hip precautions and a safe technique. Their focus on mobility was carried out through the evaluation, goal setting, and treatment phases of intervention. The secondary focus on strength and ROM that emerged seemed only natural as improvements in these areas would in turn facilitate improvements in mobility.

The physical therapy interviewees displayed care and concern for their client's level of pain and how it could be managed to lessen the negative impact on strengthening, ROM, and mobility. Cognition was also a concern and observations were noted regarding memory and the ability to follow directions. These skill areas, much like in the discussion regarding the concern with pain,

were considered to determine the impact on tolerance and carryover of physical therapy intervention. Physical therapy treatment planning, intervention, and goal setting did not reflect attempts to impact pain level or cognitive skills. An emphasis on safety and function was noted during all phases of intervention but primarily as they related to mobility. Client centeredness was also emphasized by the physical therapists and used to tailor the strengthening and mobility programs.

Again with the physical therapy interviews, in an effort to ensure understanding of the information gathered during the interviews about the case study, the interviewing also directed each of the physical therapists to describe their roles as well as occupational therapists roles when working together. The physical therapists actually described their roles similar to how the occupational therapists described them and the physical therapists described the occupational therapy roles similar to how the occupational therapists described themselves as well.

### **Physical Therapists Describe Their Role**

The physical therapy interviewees described their role as educators and trainers to help Mrs. Apple regain her ability to walk. They further specified they would reach this goal through a focus on ROM and strength. Maura demonstrated this point when she gave an idea of how she would introduce her role as a physical therapist to the client.

*I am the one that is going to help you walk again, help you get your ROM and strength back and help you get back on your feet.*  
(Maura)

Maura identified walking with PT when introducing her role to the client, she also included strength and ROM.

### **Physical Therapists Describe the Difference**

All three physical therapy interviewees expressed that there are areas between the two disciplines that seem to overlap such as transfers and functional mobility. However they continued to express that despite these areas of apparent overlap, occupational therapy and physical therapy disciplines remain quite different. The physical therapy interviewees further discussed these two areas to clarify the different roles and further negate duplication of services. For example, in looking more closely at transfers with both physical therapy and occupational therapy, Terri noted the transfers between disciplines involved different surfaces.

*We (PT) usually delineate which transfers we are working on. OT often will work on transfers to the commode, to tub benches. We definitely will delineate out which surfaces we are working on with transfers. (Terri)*

Not only are the surfaces different but the reasons why transfers are being addressed in therapy is also different. The purpose for the transfer itself differs and changes the focus during therapy toward different goals. Terri shared that occupational therapy may be focusing on ADLs when physical therapy is focusing more on the breakdown of the mobility demands required for the transfer.

*She (OT) might be working on bed mobility for different purposes, adl purposes, I might be working on bed mobility for maximizing her transfers and her ambulation. I might be working on sit to stand. So we usually try to say why we are doing things, for different goals. (Terri)*

Terri elaborated on the difference between disciplines may be the reason behind what they're doing. Bed mobility could be performed in treatment to progress with ADLs in occupational therapy and to progress with mobility with physical therapy.

Functional mobility differs in a similar fashion as transfers. The purpose and/or goal of the task during the treatment session are different. The physical therapy interviewees reported that occupational therapists will perform transfers and functional mobility tasks during treatment sessions because these tasks are part of an activity such as meal preparation or washing up. Maura relayed her example of what it means for an occupational therapist to perform functional mobility.

*If the OT is doing functional mobility, she is doing it in the kitchen or in the bathroom. Probably they can relate it to a direct task.*

*(Maura)*

Again, the difference is described to be related to the reason for the performance of a certain task and that one task may be related to another occupational task. A task performed in occupational therapy sessions may be part of a bigger picture of occupations.

Aside from these two areas of overlap, the physical therapy interviewees saw the occupational therapy role as a therapy that focused on different daily occupational tasks. For example Maura described the occupational therapy role as teaching the client with the new hip how to bathe and dress, perform mobility for kitchen tasks, and care for the pet dog.

*OT would focus on probably your typical adls, probably teaching them (clients with THR) how to use the equipment to dress*

*especially with the posterior hip and watch with all the precautions, so teaching them how to use all the adaptive equipment, basically dressing and bathing, with the hip precautions. The ambulation kind of overlaps because they have to get around. They (OT) have to teach them to walk too so that is a little bit of overlap, and the kitchen type of things, probably managing the dog food bowl would be a lot of OT, as far as coming up with the idea to do it. You (a client with a THR) can't bend down to pick it up, I'd probably work on the actual mechanics of how do you physically do it. Usually I let OT become creative and figure out the device to lift it. (Maura)*

Maura acknowledged that occupational therapy may have to overlap with physical therapy somewhat with ambulation because at times, it is needed for the client to mobilize in order to perform other occupationally related tasks. This quote also suggested that Maura thought of ambulation as a primarily physical therapy related focus for intervention and possibly a secondary focus or not actually a focus at all for occupational therapy intervention.

### **Overall Results Summary**

Although interviewed separately, the occupational therapy and physical therapy interviewees agreed upon their respective roles with this case study client and in general. The physical therapy interviewees reported a focus on ambulation and functional mobility with an emphasis on strength and ROM. The explanations depicted aspects of physical therapy to emphasize a physical and mobility focus. This information further recognizes the unique contributions of physical therapy to the care of their clients.

The occupational therapists' explanation of the physical therapists' roles agreed with the physical therapists' explanation of their roles. The physical therapists' explanation of the occupational therapists' roles also agreed with the occupational therapists' explanation of their roles. The explanations of each

other's roles reflected the same respective focuses for each discipline again further supporting the absence of duplication of services.

The results noted from this line of questioning, asking each to describe their own and other's roles, also mirrored the previous data collected regarding intervention with the case study client. The interviewees describe their roles in providing intervention for a case study client and depict specific foci and purposes unique to their own disciplines. The interviewees further supported their descriptions when they relayed their viewpoints on other discipline's roles when working as a team in the SNF environment. This information facilitates the differentiation between the two disciplines and recognizes the unique contributions each brings to intervention.



## CHAPTER VI

### DISCUSSION

The purpose of this research study was to identify the differences between occupational therapy and physical therapy. The three specific initial research questions are as follows: In what ways is occupational therapy different from physical therapy in its focus of intervention? In comparison with physical therapy, is the core of occupational therapy in fact the uniqueness of the profession? Does the current occupational therapy focus of intervention reflect the historical traits or core of occupational therapy and in what way?

#### Focus of Intervention

Significant differences were noted in the foci of intervention between the two professions. In very simplified terms, the focus of occupational therapy intervention was on the client's life story and the focus of physical therapy intervention was on the client's mobility. These differences prevailed throughout evaluation, treatment, and the development of expected outcomes phases of intervention, as described by the therapists who participated in this study.

The occupational therapists were interested in the client's occupations throughout the entire intervention process. Their descriptions of what they would do if treating a client, such as Mrs. Apple, with a hip replacement reflected the literature and guiding documents of the profession. Their focus on occupation promoted holistic and client centered practice (AOTA, 2002; Law, 1998). The

occupational therapists in this study described occupation as meaningful and purposeful and involving the mind and the body (Gritzer & Arluke, 1985; Quiroga, 1995). The occupational therapists responses included comments that indicated occupational therapy is specific to each client as an individual and involves task performance within the client's natural contexts (AOTA, 2002). The occupational therapists portrayed these attributes of occupation in their account of occupational therapy intervention as they addressed the mind, the body, the task/occupation being performed, and the contexts in which it was performed. The specificity of occupation, related to the case study client, generated a client centered emphasis along with the holistic approach. For example the occupational therapists wanted to know more about the specific client's prior occupational performance, home routines, interests, and values. They wanted to know how the THR affected this particular client's life and what particular occupations were important for this client in this situation to address.

The physical therapists were focused on the client's mobility. Their therapy approach reflected the guiding documents for their profession and supporting literature. Mobility was the physical action or function that was limited by the total hip replacement surgery that is the pathology for this case study example (APTA, 1997; Goodman, Fuller, Boissonnault, 2003). The three physical therapists addressed the functional limitation of the client's inability to physically mobilize herself from one point to another (APTA, 1997). The three physical therapists were concerned with identifying, qualifying, and categorizing the client's pathological impairments to make predictions regarding intervention

and recovery (APTA, 1997; Hayes & Adams, 2001). They did not speak of the specific category, but reflected on the client's diagnosis as the factor driving decisions regarding physical therapy intervention. They used this information to predict and learn how these impairments limited the client's ability to mobilize (APTA, 1997; Hayes & Adams, 2001). This reflects the overall procedure of initiating physical therapy intervention to categorize the client into a group based on pathology and follow related intervention guidelines as listed in The Guide (APTA, 1997). The physical therapists were also concerned with affecting the impairments that limited mobility and thus directed their focus to include strength and ROM, also listed in The Guide (APTA, 1997) under the musculoskeletal category. The physical therapists directed their plan of care toward maximizing the client's ability to physically perform mobility.

Interesting to note, both occupational therapy and physical therapy included mobility as a problem area to address with the case study client. However, they differed in their approach and reason for concern around Mrs. Apple's mobility needs. The physical therapists in this study addressed the physical functional limitations of the body structures, i.e.: strength and ROM that affected general mobility of the client to move herself around in bed and from one point to another. This reflects the APTA Guide (1997) philosophy that physical therapists address the functional limitations and impairments that arise from pathological conditions. The occupational therapists addressed mobility as it related to the performance of an occupational task. This approach of addressing mobility as it is embedded in occupation relates to Nelson, Cipriani, &

Thomas's (2001) explanation of how occupational therapy approaches mobility training in occupational therapy sessions. The focus is on the occupation and mobility is a skill needed to perform the occupation (AOTA, 2002). Even when the two professions touched on a common territory, each profession continued to reflect their respective foci initially identified: Physical therapy remained focused on mobility and occupational therapy remained focused on occupation.

### **Occupational Therapy Evaluation**

The occupational therapy focus on occupation and the holistic client centered approach were present throughout all phases of the occupational therapy intervention process with this client. During the chart review and client interview phase, the occupational therapists in this study developed an occupational story of the client's past to get to know her before the injury/surgery in an interview phase. In the OTPF this is called the occupational profile (AOTA, 2002). The occupational therapists, in collaboration with the client, then formulated a record of the client's occupational performance and identified the related contexts for the evaluation. The occupational therapists then worked with the client, to develop the client's future life occupational story with expected outcomes (Fleming, 1991b; Mattingly & Fleming, 1994). This emphasis signifies the client centered approach used in OT, where the client is essentially at the center directing the intervention (Law, 1998). The information gathered, used, and addressed in this process covered a broad spectrum, reflecting holistic thinking, but always related specifically to the individual client and her occupations.

While building the story about the client's past, the occupational therapists gathered information to identify the individual attributes of the client, the occupations she performed, and determine in what contexts they were performed. This profile of information illuminated the client's desires, needs, values, beliefs, and what occupations she deemed as important. This is in congruence with the Model of Human Occupation and beliefs regarding motivation and volition (Kielhofner, 1992) as well as with the OTPF and the occupational profile (AOTA, 2002). Gathering this client specific information also relates to the client centered beliefs of occupational therapy shared by Law (1998). The occupational therapists also gathered information about the client's interests, hobbies, routines, previous and expected future social, physical, and financial contexts (Fisher, 1998). This gave the occupational therapists an idea about the client's perception of how her life had been before it was impacted from this injury/surgery (AOTA, 2002; Law, 1998). During the evaluation phase, and from the information gathered, the occupational therapists also learned how to best relate with the client, her sense of humor, her coping skills, as well as how to motivate and engage her in occupational therapy intervention and her recovery process (AOTA, 2002; Fisher, 1998; Kielhofner, 1992; Law, 1998; Mattingly & Fleming, 1994). This occupational profile consisted of not only basic information regarding past occupations performed but also specifics about those occupations and what they meant to the client. The occupational therapists remarked about how they would use the information gathered from the interview as a means of motivating the client through occupational therapy intervention

(AOTA, 2002; Kielhofner, 1992). The occupational therapists' desire and concern for the client's motivation to participate was identified as a theme in the data gathered. The broad array of information gathered and how it is used reflects the mind body duality philosophy as well as the inclusion of the environment for a holistic approach that also remains centered on the client's perspective (AOTA, 2002; Kielhofner, 1992; Law, 1998).

This initial occupational story building phase was not only a time for the occupational therapist to get to know the client but also a time when the occupational therapist and client work together to identify which occupations were affected, which were important to the client, and which she wanted to focus on in occupational therapy intervention. The identification of which occupations to address came mainly from the client (Law, 1998; AOTA, 2002). This is an important step in the intervention process to ensure client motivation and engagement in occupational therapy intervention and the recovery process. (Fisher, 1998; Law, 1998). However, the occupational therapists also keep in mind their own estimation regarding potential occupational difficulties and note any discrepancies in comparison to the client's to further investigate. The occupational therapists then concentrated the evaluation on the client's occupations that had become problematic due to an inability to adapt to the changes brought on by illness/injury (AOTA 2002; Fisher, 1998; Kielhofner, 1992). The initial evaluation steps of gathering information from the client helped to determine specific occupations for further evaluation and intervention with this particular client, Mrs. Apple.

This detailed oriented process the occupational therapists used, developing the individual client's occupational profile, assisted them to further detail the description of Mrs. Apple beyond what was related to the diagnosis of THR. The occupational therapists started with the client's general diagnosis, THR, gathered information regarding the individual client's occupational story, and tailored intervention to the unique qualities of the specific individual client. The occupational therapists built their intervention around these specifics, not the diagnostic category. The occupational therapists commented that with a different client, even if the diagnosis were the same, the intervention could look completely different due to differing client, environmental, and task related variables. Their recognition of the difference in therapy for each client supports the notion that occupational therapy builds the intervention around the unique aspects of each client, and not the diagnosis, thus reflecting the client centered philosophy of occupational therapy (Law, 1998; Fisher, 1998; AOTA, 2002)

### **Physical Therapy Evaluation**

The physical therapists also conducted an interview regarding the client's past however, the purpose was entirely different. Because of their concern with mobility, strength, and ROM, the physical therapists' inquiry aimed at gathering information related to these areas. The three physical therapists initially began with questioning about the type of surgery and related weight bearing precautions. They also wanted information regarding the client's past medical history. These steps indicate a more procedural form of reasoning, focused on the diagnoses, congruent with physical therapy intervention (Jones, Jenson, &

Edwards, 2000). The physical therapists then concentrated on questions primarily centered around learning about previous physical capabilities and function related to the client's hip and her mobility. The physical therapists gathered information about the client's previous activities that gave them an idea about the client's previous strength, ROM, and mobility capabilities. Cognition was also a concern and they deduced that this client was pretty independent prior to her hip fracture and related surgery because of how independent she was with previous self, home, and community activities. They also asked about the client's home set up to get ideas about what future mobility demands might exist for the client to overcome before being discharged home. For example if the client had stairs at home, the physical therapy program would include stair training at the SNF. They also asked about availability of family support for after discharge home to get an idea if the client needed to reach an independent level in mobility tasks before returning home. The information gathered in this phase was mainly related to physical performance of mobility and identification of possible future environmental barriers to mobility at discharge. Their discussion portrayed a focus on mobility and a concern with physical objective findings congruent with studies by Delitto and Meckler (1995) and Payton (1985). The physical therapists emphasized objective data such as ROM, strength, and balance and related physical conditions that correlate with the client's diagnosis and/or past medical history.

The physical therapists' main focus was the client's mobility, hence they gathered information to assist in learning about her level of mobility and then



being able to facilitate the return of the client back to her previous level of mobility in her home and community. This concept reflects the Guide's (APTA, 1997) discussion emphasizing a functional focus. This functional focus was portrayed by progressing the client to a level of strength, ROM, and mobility that was required for a successful discharge to her home environment. This recent emphasis on function is different from that of the past, according to the Guide (APTA, 1997). Current physical therapy intervention foci and goals are not just to improve the client's strength and ROM but also on mobility and not just to the maximum level of improvement but instead to a point of regaining function equal to that of prior to the onset of injury. The three PT's focus remained on mobility but also related to function.

The systematic gathering of information described by the physical therapists in this study is consistent with the Guide's (APTA, 1997) outline of the chart review and interview to gather the client's past medical and social history and previous functional status. The physical therapists gathered information regarding the diagnosis and specifics about the client's situation, all in regards to mobility and physical capabilities. The resultant information was used to assist in tailoring the physical therapy program for strengthening, ROM, and function as it related to mobility (APTA, 1997).

The physical therapists described using information from a chart review and a client interview to identify the client's previous status as well as some of the client's priorities relating to mobility and then proceeded to the evaluation. In congruence with the Guide (APTA, 1997) the evaluation the three physical

therapists described focused initially on tests to measure the client's strength and ROM. According to the Guide (APTA, 1997) and Goodman, Fuller, and Boissonnault (2003), the physical therapists were addressing the client's impairments that were a result of the THR, hip fracture pathology. The three physical therapists also mentioned they measured the client's function by having the client attempt to mobilize, especially in an environment set up to simulate the client's environment at home. This inclusion also correlates with the Guide's (APTA, 1997) account that with the changes in health care in the 1990s, physical therapists now identify their domain to include an emphasis on functional impairments.

All of this data gathered assisted the physical therapists to categorize the client's deficits into one of four categories that, according to the Guide (APTA, 1997), correlated with guidelines for intervention. The Guide (APTA, 1997), Higgs (1993), Payton (1985), and Hays and Adams (2000) all reported that physical therapists gather information prior to and during the evaluation in efforts to enable categorization of the client into groupings. The Guide listed these to include four different categories based on diagnosis and objective findings. The client is placed into one of these four groupings in an effort to better predict response to treatment, the course of the problems identified, and the outcomes of therapy (PT Guide, 1997; Hays & Adams, 2000). The three physical therapists seemed to already have an idea regarding the category based on the diagnosis and though they never mentioned the actual category, it was mentioned that the intervention would change if the client had neuromuscular

involvement such as Parkinson's that attributed to the fall in the first place. This is a different category in the Guide (APTA, 1997). The three physical therapists started with the client and her diagnosis and grouped her into a category based on her diagnosis and measurements of physical abilities. The physical therapists focused on the commonalities between clients with the same diagnoses (APTA, 1997; Jones, Jenson, & Edwards, 2000). They then individualized intervention according to specific information regarding the client's prior functional level of mobility and her home or other discharge environmental demands on mobility. The inclusion of considering the client's home or discharge environment was how the physical therapists included a more functional focus (APTA, 1997).

### **Occupational Therapy Intervention**

The occupational therapists stressed the information gleaned from the interview phase of intervention and gave less weight to the diagnosis in planning intervention (Mattingly & Fleming, 1994). The occupational therapists also used the information about the client's home to try to set up the SNF environment or context similar to that of the client's home for evaluation and treatment purposes (AOTA, 2002). The three occupational therapists wanted the client's hospital bed to reflect the client's bed at home and her current bathroom set up to reflect her bathroom at home as much as possible. The evaluation results identified the client's performance limitations, as well as contextual and task related barriers and supports to the performance of each occupation (AOTA, 2002; Fisher, 1998; Kielhofner, 1992) Care was taken to consider the client's skills along with

aspects of the task being performed and the context in which it was performed. The interviewees discussed consideration of these variables as they considered planning intervention for Mrs. Apple. This concept portrays the person, task, environment fit principal of occupational therapy intervention (Kielhofner, 1992; Fisher, 1998). The problem arises when there is not a fit between all of these aspects. Occupational therapists do not see a performance problem as only one of body capacity. Occupational therapists also acknowledge performance is affected by the manner in which the task is performed, task demands, and the contexts in which it is performed.

The results of the evaluation lead to planning and tailoring intervention. The occupational therapists focused on occupation during intervention (AOTA, 2002). The occupational therapists described having the client work on enhancing performance of occupations identified in the evaluation phase as problematic. They addressed adapting how the tasks were performed and/or changes to the environment in which they were performed. Adapting performance of a task is considered using a compensatory approach. (Fisher, 1998). For example, the occupational therapist suggested that they might have Mrs. Apple sit for ADL task instead of stand to conserve energy, limit the risk of falls. Using an adaptive intervention approach the environment was adapted to enhance performance, for example setting up the bathroom to allow a chair to fit for the client to follow compensatory techniques (Fisher, 1998). Using the remediation approach the occupational therapist described helping the client gain strength and activity tolerance from the actual performance (Fisher, 1998)

The combination of these three treatment approaches follows suitably after addressing the three aspects of client, task and context in the interview and evaluation phases. This ability to choose one or a combination of remediation, adaptation, and compensation to facilitate the achievement of occupational performance is unique to OT intervention (Fisher, 1998).

### **Physical Therapy Intervention**

The physical therapists in this study all emphasized the therapeutic exercise programs they would design for Mrs. Apple primarily based on her diagnosis, medical history, and related THR. The three physical therapists all included these exercise programs to address the client's strength and ROM of the operated hip in their intervention. One physical therapist even remarked that physical therapy intervention included "the same exercises for everyone who had this same surgery, like a recipe", again reflecting the Guide's (APTA, 1997) use of categorization. All three physical therapists brought up therapeutic exercise as their first mode of intervention. The three physical therapists already knew what the primary method of intervention would be based on the diagnosis and based on physical therapy history and philosophy of a physical focus. This correlates with the Guide (APTA, 1997) guidelines identifying and stating that therapeutic exercise is the physical therapy treatment of choice for all diagnoses and categories. This process and mode of thinking, developing therapeutic exercise programs related to diagnostic variables, following diagnostic related categories of guidelines, also correlates with physical therapist's clinical reasoning (Higgs, 1993; Payton, 1985; APTA 1997; Hays & Adams, 2000).

The physical therapists also spoke of ambulation/gait and transfer training which correlated with the Guide (APTA, 1997) guidelines for functional training as a secondary method of treatment. It was with this, more functional method of intervention and with tailoring the exercise program that the physical therapists touched on conditional reasoning, considering the prior level of strength, ROM, and mobility, as well as the discharge environment, both physical set up and social support. The physical therapists continued with their functional mobility perspective when they considered the environment and the focus was safe mobility within the environment. This functional method of intervention was not a primary emphasis as the priority for physical therapy intervention was on developing an exercise program based on the diagnosis and evaluation test and measures results. The physical therapists built their intervention around the client but primarily followed guidelines related to the client's diagnosis (APTA, 1997). Interestingly, the Guide also notes an emphasis on ADL training (APTA, 1997). However, the physical therapists interviewed regarding this basic THR case, shared that they would defer ADL training to the occupational therapists as they knew more about that area of intervention.

### **Clinical Reasoning**

Another area that revealed significant differences between occupational therapy and physical therapy was the therapists' styles of clinical reasoning. The occupational therapists, maintaining their holistic thinking, used multiple forms of reasoning to make clinical decisions. The occupational therapists, because of their focus on occupation and the concern for the client's perception of the

illness/injury experience, continuously varied between forms of clinical reasoning to enhance the client's engagement in intervention and facilitate her ability to manage her own health care needs.

The physical therapists primarily used procedural reasoning in their decision making. Their reasoning was reflective of their expectations realized from their knowledge of the commonalities of the THR diagnosis. Their use of procedural reasoning to note commonalities facilitated the education of the client regarding diagnosis related expected body function improvements with physical therapy.

#### **Occupational Therapy Clinical Reasoning**

As the occupational therapists were gathering client information, they were engaged in multiple types of clinical reasoning, including narrative, interactive, and procedural reasoning (Fleming, 1991; Mattingly & Fleming, 1994). The occupational therapists were identifying and learning not only what the occupational aspects of the client's life were but also how the client experienced those aspects of her life before her surgery. This denotes narrative reasoning (Mattingly & Fleming, 1994). The interaction between the occupational therapist and client also denotes significant use of interactive reasoning as the practitioner begins to facilitate a positive, trusting rapport with the client based on the client's current feelings regarding the surgery and her condition (Fleming, 1991; Mattingly & Fleming, 1994). Procedural reasoning was also used as the occupational therapists kept in their minds which occupations they expected to be problematic to the client based on the

diagnosis.

This complexity of thinking demonstrated by the occupational therapists in this study portrays the use of conditional reasoning, combining multiple types of reasoning together, narrative, interactive, and procedural, and flexing between the types as needed on a regular basis (Mattingly & Fleming, 1994). The client, task, context fit concept mentioned earlier is another example of the complex, holistic thinking in occupational therapy intervention, also reflective of conditional reasoning (Mattingly & Fleming, 1994). This type of reasoning is typically used in occupational therapy and can occur throughout one treatment session (Mattingly & Fleming, 1994).

Another unique aspect of occupational therapy thinking revealed in the research data was the occupational therapists' continuous, prominent concern for the client's illness experience (Mattingly & Fleming, 1994; Law, 1998). Throughout all phases of the occupational therapy process, the occupational therapists portrayed an interest in how the client was experiencing therapy and recovery. The three occupational therapists gave examples of how they each would be sensitive to the client's experience of being in a SNF or to the events of the day in the SNF. The three occupational therapists shared how they might adapt a treatment session or overall intervention to accommodate the client's illness experience without compromising her recovery. These are examples of the occupational therapists' use of interactive reasoning (Mattingly & Fleming, 1994). This is an example of the occupational therapists' flexible approach to intervention and concern to address both the mind and body aspects or the



whole client. By remaining in tune to the client's needs, occupational therapists need to be flexible in their mode of clinical reasoning, in what they address in the evaluation and treatment phases, and even in each treatment session.

Following along with the concern for the client's experience, the occupational therapists took note of whether or not the client was motivated to participate in therapy. This correlates with Kielhofner's Model of Human Occupation Theory (1992) and with Fisher's Occupational Therapy Intervention Process Model (1998). The occupational therapists took it upon themselves to play a role in motivating the client for recovery and therapy intervention. The occupational therapists specifically wanted to learn what motivated the client in the past. They discussed examples of how they might use the client's past accomplishments to facilitate the client's motivation for participation in occupational therapy and engagement in recovery. The three occupational therapists also discussed how they would use the client's past interests in their treatment sessions to help to motivate the client to perform occupational tasks to enhance recovery. This reflects the occupational therapy principle of including volition as a consideration in intervention (Kielhofner, 1992; Law, 1998; AOTA, 2002). From a clinical reasoning perspective, knowing when and how to motivate a client reflects interactive reasoning (Mattingly & Fleming, 1994).

### **Physical Therapy Clinical Reasoning**

The physical therapists used primarily procedural or scientific reasoning as they gathered information related to the diagnosis, pathology, and their focus on mobility (Delitto & Meckler, 1995). The information sought out was basically

factual related to the client's physical performance of mobility and related strength, ROM, and physical capabilities. This type of reasoning allows the physical therapists to gather diagnostic information to support the categorization of the client into one of four groupings in the Guide (APTA, 1997) (Delitto & Meckler, 1995; Higgs, 1993; Payton, 1985). Once categorized, the physical therapist can use the related guidelines to consider a choice of therapeutic exercise programs and other intervention guidelines (APTA, 1997). Procedural reasoning for making decisions related to intervention is the primary type of clinical reasoning evident by physical therapy in this study. Interactive reasoning was used to motivate a client to participate in the physical therapy intervention program. This type of reasoning was not emphasized and typically used if a problem with the client's compliance to the intervention occurred.

#### **Comparison of Occupational and Physical Therapy Clinical Reasoning**

Occupational therapy and physical therapy differ in focus and complexity in clinical reasoning. Physical therapy uses primarily procedural reasoning with the variables evaluated focusing on physical mobility. Occupational therapy, with their broad focus on occupation and the emphasis on client centeredness, correlates with a much more in depth inquiry of the client and includes narrative and interactive reasoning as well as procedural reasoning. Their inquiry examines both mind and body aspects of the client as well as the occupations performed and the related contexts in which they are performed (AOTA, 2002; Law, 1998).

The amount of data gathered to plan intervention too varies in complexity.

More specifically, one of the goals of the occupational therapy chart review and interview process is to begin to narrow the possible occupations and identify those the client wants to address in occupational therapy intervention (AOTA, 2002; Fisher, 1998; Law, 1998). Occupational therapists investigate multiple variables to address the complexity of occupation. This process involves getting to know the client as well as identifying the focus for the evaluation and subsequent intervention. The physical therapists, on the other hand, were not looking to identify their primary focus; they already knew their focus of intervention as indicated by the diagnosis and related diagnostic category: Mobility, strength, and ROM (APTA, 1997). The physical therapists' initial inquiry of the client is much more streamlined as it relates to a more distinct focus on the client's physical capabilities and mobility aspects impacted by the diagnosis. The physical therapists do not gather extensive information regarding the client's perception of how her life has been affected by this injury/surgery. Physical therapy does not emphasize attempts at getting to know and understand the client's routines, habits, interests, values, coping skills or other psychosocial information. Physical therapy emphasizes primarily procedural or scientific reasoning in the client interview, evaluation, and intervention (Higgs, 1993; Payton, 1985; APTA, 1997; Hays & Adams, 2000).

### **Conclusion**

In summary, physical therapy intervention based clinical decisions on more procedural reasoning and did not stress information gleaned from narrative and interactive reasoning in their decisions. Physical therapy emphasized a

focus on the diagnosis while including but not emphasizing client input except regarding functional aspects. Physical therapy maintained a focus on function related to mobility and included some aspects unique to the client's prior level and expected discharge environment. Physical therapy intervention centered on remediation and included adaptation of the environment with respect to safe mobility, for example adding a ramp, or included compensation with respect to mobility for example wheel chair mobility when necessary for a lack of ambulation.. Physical therapy intervention related to goals of improved mobility for an outcome of improved function.

Occupational therapists based their intervention on interactive and narrative reasoning while including but not stressing procedural reasoning. Occupational therapy emphasized a strong focus on the client, her experience, her perception of disability, and her story in relation to occupations. The occupational therapists also maintained a very holistic approach by including both mind and body aspects of the client as well as contextual and task related variables. The occupational therapists also were flexible in their approach and adapted their intervention to include a mix of remediation, adaptation, and compensation to achieve the goal of improved occupational performance. The occupational therapists focused on occupation but included mobility in that focus when it was limiting occupational performance and engagement.

### **The Focus of Intervention is the Uniqueness of Occupational Therapy**

The second question for this study pertained to the focus of occupational therapy intervention reflecting the history and core values of the profession. The

focus on occupation, that is the tasks important to and meaningful for the client is unique to occupational therapy. The physical therapists interviewed did not address Mrs. Apple's occupations. Additionally, the occupational therapists discussed evaluating the client's performance of occupations and considered the task demands and influence of the environment on the client's performance. Furthermore, the occupational therapists considered the client's perception of the illness/injury and treatment experience. The physical therapists served a clear role in facilitating mobility. While an important goal for most clients and a primary and obvious priority for someone after a THR, it is not the only concern. Hence, occupational therapy is a unique profession that offers many additional benefits to the client.

**These Unique Aspects of Occupational Therapy**  
**are Not New to the Profession**

These aspects unique to occupational therapy are also evident throughout history and support the claim to the profession's domain as identified in the OTPF (AOTA, 2002). The occupational focus for occupational therapy reflects the historical emphasis on the benefits of occupation with mentally ill clients and clients with physical dysfunction that Meyer, Barton, Dunton, and Slagle discussed (Gritzer & Arluke, 1985, Loomis, 1992; Meyer, 1922 reprinted in 1978). It also reflects the historical belief and value that the mind and body influence each other and dysfunction or healing in one area can affect dysfunction or healing in another (Engelhardt, 1985; Law, Baum, & Dunn, 2001; Meyer, 1922, reprinted in 1978). This belief was described early in the

profession by Dunton, Meyer, and Slagle in their depiction of intervention choices and use of occupation to heal both psychiatric and physical illnesses.

Occupational therapists maximized the benefits of engaging the mind to reduce negative aspects of injury/illness experience (Hanson & Walker, 1992). They also used occupation for its benefits of engaging performance to improve physical, cognitive, and emotional attributes. This approach was used with WWII soldiers by reconstruction aids, with orthopedic and psychiatric clients, with industrial revolution clients to return to work, and with clients with poliomyelitis in enabling participation in daily occupations (Gritzer & Arluke, 1985). The occupational therapists and reconstruction aids trained to be occupational therapists in history valued the use of occupation for its motivational properties, healing properties, and its properties to divert attention away from the negative aspects of disease. This also emphasizes the occupational therapy aspect of directing attention away from disease related variables and onto developing a possible future story based on what a client is able to do even back in history.

None of the ideas of occupational therapy found in this research study are new to occupational therapy. They are apparent throughout the history of the profession. The thinking and actions described by both physical therapists and occupational therapists in this study are indeed what separates occupational therapy from physical therapy as unique and different professions. Each offering distinct benefits to the client by facilitating and enhancing the client's return to a productive satisfying lifestyle.

## CHAPTER VII

### IMPLICATIONS FOR PRACTICE AND FURTHER RESEARCH

This study was undertaken because of a noted lack of understanding of the difference between occupational therapy and physical therapy, significant reimbursement changes, and potentially incorrect or decreased referrals to occupational therapy. The therapists in this study indeed reported a clear difference in the two professions. However, in depth questioning had to occur to ensure the real differences were illuminated. This study initially uncovered basic differences in intervention areas where occupational therapy focused on ADLs and IADLs and physical therapy focused on mobility, ROM, and strength. This initial finding was adjusted with a more in depth look at clinical reasoning to capture what may not be verbalized or written. The ADL/IADL occupational therapy focus was actually related to a primary focus on the individual client and her occupations.

The results of this research study identified the procedure and focus of occupational therapy and are mirrored in the OTPF (AOTA, 2002). Upon initially reading the OTPF myself, I was elated and excited because it was something I felt I already used myself in my current and past practice. The OTPF just gave me the words I needed to communicate my role. It gave me renewed confidence to continue to take the time I need to “get to know” the client or develop the occupational profile. This part of the occupational therapy intervention process

is not just idle 'chit chat', it is important occupational related information that helps occupational therapists determine the focus of intervention, intervention approach, how to motivate the client, and how to therapeutically use him or herself during intervention. This step is part of what makes occupational therapy client centered, which improves client participation and in turn improves client outcomes. Development of the occupational profile is integral to occupational therapy intervention.

The OTPF (AOTA, 2002) also captured the different approaches and combination of approaches occupational therapists use, adaptation and compensation in addition to remediation. Thus validating the occupational therapist practitioners' use of adapting the environment or task as well as teaching the client compensatory techniques to affect occupational performance. The occupational therapists in this study also continually spoke of adapting and compensating to enable occupational performance. In practice, I also have always considered adaptation/compensation approaches in addition to remediation to enable occupational performance.

Occupation remained the focus and emphasis of the OTPF and also of the occupational therapists in this research study. This is part of what sets occupational therapy apart from other professions. I also have noticed in my current practice that occupational therapists focus on occupation where physical therapists focus on mobility, ROM, and strength, and physical therapists use exercise programs as intervention where occupational therapists use occupation related methods as intervention.



However, I have also noted that occupational therapists do not always communicate their occupational focus as they explain what they are really doing with clients. At times, occupational therapists speak and document in general, less descriptive terms that do not capture occupation and what they are truly addressing or the extended variables that they are considering when making clinical decisions. This was exemplified in my research when noting the initial occupational therapy focus on ADLs and IADLs. This focus however, was determined by the occupational therapists because of an emphasis on occupation with the individual client and her individual situation, past, discharge disposition, and personality. The true focus was on the client, her occupations, and how the THR affected her life. The difference in these initial versus more in depth results only articulated the importance of the need for occupational therapists to more clearly articulate what they do and their reasoning to their colleagues and clients.

Also, without proper communication, the occupational therapy focus on ADLs and IADLs appears as though it could be related to the diagnosis. Despite the time, effort, and concern occupational therapists put into uncovering other variables and the significant knowledge they gain from this process regarding important aspects of the individual client, they do not capture this information with the means of communication displayed in this research study. Information gained throughout this process is used to determine the focus of intervention, a method of intervention, a means of motivation, and is applied to facilitate efficiency and effectiveness in procuring positive outcomes. Information and a

process this important demands communication. Effective, unified communication is one of the uses of the OTPF (AOTA, 2002).

The OTPF (AOTA, 2002) gives occupational therapists the words to communicate what they truly do with and for their clients. It also allows for occupational therapists to use the same terms across settings and nationwide for communication which will facilitate the medical community's and the general community's understanding of our role, clarify the boundaries of our role, unify the profession, and enhance the validity and credibility of our intervention. The OTPF (AOTA, 2002) allows for movement within the framework for example, multiple theories can be applied during intervention but use of the OTPF will maintain the occupation focus and emphasis of occupational therapy.

The results from this research study when compared to the OTPF (AOTA, 2002) indicated that occupational therapists follow the process and focus as delineated in the OTPF. This further demonstrates the valuable practical use of the OTPF (AOTQ, 2002). The OTPF (AOTA, 2002) is not just another document, it is already followed and now it gives occupational therapy practitioners a unified means of communicating to each other, the medical professionals, as well as others in the medical and general community.

Occupational therapists need to communicate the unique aspects of intervention to our clients, consumers, and each other within the profession. We need to use words that convey a unified core. We have many opportunities to use professional occupational terms that display this united focus in our notes and in our verbal communication.

This could be accomplished in our documentation through changing the focus on evaluation reports and forms from body function to a focus on occupational performance. Occupational therapists need to develop, write, and use documents that illuminate our occupational, holistic, client centered focus. The forms need to allow for enough space to write about the different variables addressed, the different approaches used, and the client's response, and the effect on the client's occupational performance.

An in depth form for recording the occupational profile could also be started but arranged to allow for continual additions and changes to reflect and capture the nonlinear process of occupational therapy. Instead of using an evaluation form that starts with check off boxes and rating systems for body functions, occupational therapy forms could start with the areas of occupation the client identified as important areas to address and what that individual client's goals are for performance of those occupations. If the intervention is truly focused on the client's needs as identified by the client, there should be one space for the client's goals, not two spaces, one for the client's goals and one for occupational therapy goals, because these should be the same. Following documentation areas on an evaluation form could allow for a record of the individual client's performance of the occupations identified, and could include space for recording all related variables such as the client's performance skills, tools used, human assistance used, and the contexts of the occupational performance. Check off boxes could be used to identify if the variables recorded are supporting or hindering thus more clearly identifying the potential areas for

occupational therapy intervention. The recommendations for intervention following the evaluation could include naming the approach used, for example a remediation approach and of what variables, and/or an adaptation/compensatory approach with related details. This would more clearly illustrate the aspect of our role that allows occupational therapy to continue affecting outcomes in occupational performance despite a poor potential for remediation.

The OTPF could be used when documenting goals as well. Keeping in mind the overall focus on engagement in occupation, the goals should reflect the client's occupations as identified in the occupational profile. They should communicate what criteria it is we are actually measuring. Too many times I see goals written without qualifying criteria or that focus merely on body function that neglect to capture the extent of which occupational therapy addresses with a client. For example I often see and also heard in these research interviews examples of goals such as: Independent dressing and bathing. However, when discussed further in these interviews, and in current practice, I found this goal meant, for example, that the client would be able to shower seated and dress seated while using long handled equipment without undue fatigue, no loss of balance, safe hand placement, following hip precautions, all within an acceptable length of time, in an environment similar to the client's home environment. This type of a goal, although lengthy, more accurately reflects all of the variables occupational therapists are considering during intervention. These qualifying criteria are addressed in therapy sessions, they should be written in the goal. Writing out the goals could assist in the communication of the role of

occupational therapy and could also assist in delineating the boundaries between occupational and physical therapy.

The same rules would be true for documentation of treatment sessions. Occupational therapists need to be more descriptive about what was done and how the client responded. The OTPF (AOTA, 2002) gives occupational therapists a framework for daily note writing as well. The OTPF (AOTA, 2002) would remind therapists to include all variables addressed. The client's performance skills and related contexts should be described in more detail. The client's motivation to engage and participate should be considered and documented. Any intervention the occupational therapist attempts to affect these areas should be recorded with the client's response to enable determination of what works best for a particular client and/or situation.

All of the above recommendations related to written documentation should be followed for verbal communication as well. In team meetings, family meetings, to co-workers, doctors, insurance companies, and with clients, the terms used to communicate should reflect what occupational therapy is really addressing. If the written documentation is set up in this manner, the verbal communication should come more easily.

It may be a transition for some therapists to use different language to communicate regarding occupational therapy intervention. To facilitate the use of the common terms, occupational therapists could display the OTPF on a bulletin board at their work area. The occupational therapists could discuss the language and how to use the language in their facility. A 'cheat sheet' could be

used by individual occupational therapists to facilitate use of the language in note writing and conversations. In-services could be held to discuss how the OTPF(AOTA, 2002) influences practice and gives structure to practice.

Further research to benefit the profession of occupational therapy could include a focus on documentation. Research to determine if current documentation reflects these unique principles identified and if it does not, then further research would behoove the profession to identify forms and/or formats that would reflect the unique aspects.

Other research with this data or similar data could look at the actual words used by the therapists and compare them using a word count. For example, how did the occupational therapists use the word mobility, was it ever used? In this study, the occupational therapists did not seem to be as focused on pain but the physical therapists were. Why did this occur and would occupational therapists devise any intervention to address pain if it were an issue? Would physical therapists intervene to affect pain?

Other outcomes research would also be beneficial to the occupational therapy profession. Research that looks at the client's perspective regarding what was received from occupational therapy during intervention and what was felt to be beneficial. Research that investigates the specific outcomes of the occupational, holistic, client centered focus would be most beneficial as this is the aspect of occupational therapy that is unique and not offered by any other profession.

We, as therapists need to advocate for the recognition of the need for

**both occupational therapy and physical therapy, for intervention to each client that focuses on occupation coupled with one that also focuses on mobility and related physical aspects, respectively. Insurance companies, referral sources, and our clients and their families all need to learn the differences between the two disciplines to understand the benefits of both together.**

**Identifying unique aspects of the profession of occupational therapy, ensuring the ongoing inclusion, portrayal, and communication of these unique aspects in occupational therapy intervention, and identifying and communicating the related benefits of our occupational approach is key in enabling occupational therapy to flourish in the future. The most important aspect to remember throughout this endeavor of staking claim to our domain in the future is the advocacy for our clients to have access to the benefits of occupational therapy intervention to facilitate engagement in occupation to enable participation in contexts and thus facilitate and enhance their recovery from disability.**

## PERSONAL REFLECTION

In my quest to identify and clarify the difference between occupational and physical therapy I read significant amounts of journal articles and books. I read about occupational therapy and modalities. I read about physical therapy and ADLs and IADLs. I read about the need to contain health care costs. I began to think cross training and grouping these two professions into one might be a good option. However, when I looked further into each professions' history, philosophy, and areas of focus and expertise, I was pleasantly reminded of the unique aspects of each profession.

Initially, when I read the Guide for Physical Therapy (APTA, 1997) and noted ADL and IADL training in the physical therapy list of top methods of intervention, I began to entertain the belief that the boundaries between disciplines were blurred. I spoke with physical therapists I worked with in home care, acute care, and in SNFs and they all had the same response. The physical therapists each felt occupational therapists were more qualified and specifically educated and prepared to train clients, with any diagnosis, in performing ADL and IADL tasks including the use of equipment if needed. They all felt occupational therapy would make more effective, more efficient clinical decisions in this area.

Although other disciplines seem to identify occupational therapy intervention with ADLs, their understanding of occupational therapy's role with these tasks is only a piece of what makes up true occupational therapy. This



personal belief regarding occupational therapy and its broader focus on occupation was supported with all the literature I read. ADLs and IADLs are a focus in some occupational therapy interventions because they are pieces of occupation that a client has identified.

I have long believed in the power of occupation. It creates a focus on the client as a priority. It fosters a collaborative relationship between client and therapist offering each a unique sharing and learning experience. It is holistic, incorporating both mind, cognition as well as spiritual and emotional, and body as well as considering contexts and the task itself. However, I have struggled with the constrictions placed on occupational therapy's role by the medical model of healthcare. Consumers and medical professionals all desiring a black and white description of occupational therapy to fit into the medical model paradigm associate occupational therapy with the tasks we are seen performing and have labels for ease of communication. An observer is not able to understand the meaning, purpose, or contexts of these tasks like ADLs. It is this clinical reasoning process, blind to an observer's eye, that makes them more than tasks. It makes them occupations. It also makes them only two of many areas of occupation that an occupational therapist may focus on with a client.

Compiling this research and analyzing the results has reaffirmed my belief in the use of occupation and its widely vast benefits. My research findings have already begun to shape my daily practice of occupational therapy. I have been emphasizing the client centered approach and basing my evaluation, intervention plan, goals and communication on occupation or preparing for occupation. This

has opened my eyes to many other creative options for occupational therapy daily session content. It has also enhanced client engagement and had an enormously holistic effect on individual clients showing improvements in performance as well as life satisfaction and spirituality. I have also been including a more in depth explanation of the benefits of engagement in occupation. With a clearer picture and better understanding of these benefits, clients engage more readily in sessions and in the direction of their own treatment sessions.

After 17 years of trying to offer a truly unique service focused on occupation and running into multiple contextual barriers, I am rejuvenated and excited at the findings of my research. I have a stronger belief in the benefits of occupational therapy services and I feel our culture and society is shifting the medical model to a model where the philosophy of occupational therapy is accepted as more mainstream and the time for occupational therapy to flourish is now. It is time to show the holistic services that occupational therapy can provide for our clients to reap the benefits.

I have begun a project to engage others in the occupational therapy department where I work in taking a closer look at the OTPF(AOTA, 2002). After more clearly defining what the framework means specifically within our practice setting we will look at how it is reflected in our current daily intervention. The plan is to then identify areas of occupational therapy intervention that could be expanded or revised by including a more client centered, holistic, occupational focus. I am looking forward to track and document the process and results of

this process. I hope to see the role of occupational therapy reflect the profession's historical roots and take on a direction different from that of physical therapy in an effort to maximize the benefits of rehabilitation to the client.

Referring back to my physical therapy co-workers' comments over the years regarding physical therapy versus occupational therapy and ADLs and IADLs, I feel the same regarding physical therapy and occupational therapy and physical modalities. After completing this research, I learned that the use of physical modalities is deep rooted in physical therapy's history, much like the use of occupation in occupational therapy's history. The philosophy of physical therapy and related professionals' expertise is geared more toward the use of such physical modalities, just as the same of occupational therapy is geared more toward the inclusion of ADLs and IADLs in an intervention focus. Cost effectiveness would be enhanced by allowing the experienced professionals to provide the treatment in which they are experienced. We are two complimentary professions, we work hand in hand, we can function as a team giving the client optimal recovery. After all, that is the ultimate goal, the client's recovery, the client's satisfactory return to mobility and occupational performance for a fulfilling life.

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**APPENDICES**



## APPENDIX A

## IRB APPROVAL

## UNIVERSITY OF NEW HAMPSHIRE

Office of Sponsored Research  
 Service Building  
 51 College Road  
 Durham, New Hampshire 03824-3585  
 (603) 862-3564 FAX

LAST NAME	Morell	FIRST NAME	Lauryn
DEPT	Department of Occupational Therapy	App'l DATE	11/9/98
OFF-CAMPUS ADDRESS (if applicable)	5 Bernards Rd. #36 Merrimack, NH 03054	IRB #	2071
PROJECT TITLE	What Really is The Difference Between Occupational and Physical Therapy?		
		REVIEW LEVEL	EXE

The Institutional Review Board for the Protection of Human Subjects in Research has reviewed the protocol for your project as Exempt as described in Federal Regulations 45 CFR 46, Subsection 46.101 (b) (2), category 2


Approval is granted to conduct the project as described in your protocol. Changes in your protocol must be submitted to the IRB for review and approval prior to their implementation.

The protection of human subjects in your study is an ongoing process for which you hold primary responsibility. In receiving IRB approval for your protocol, you agree to conduct the project in accordance with the ethical principles and guidelines for the protection of human subjects in research, as described in the Belmont Report. The full text of the Belmont Report is available on the OSR information server at <http://www.unh.edu/osr/compliance/belmont.html> and by request from the Office of Sponsored Research.

There is no obligation for you to provide a report to the IRB upon project completion unless you experience any unusual or unanticipated results with regard to the participation of human subjects. Please report such events to this office promptly as they occur.

If you have questions or concerns about your project or this approval, please feel free to contact me directly at 862-2003. Please refer to the IRB # above in all correspondence related to this project. The IRB wishes you success with your research.

For the IRB,



Kara L. Eddy  
 Regulatory Compliance Officer  
 Office of Sponsored Research

cc: File  
 Lou Ann Griswold-advisor

## APPENDIX B

### CONSENT FORM

**Purpose of this research:** This study is an attempt to compare the professions of occupational therapy and physical therapy to uncover the uniqueness of occupational therapy, in an effort to more clearly define occupational therapy and therefore firmly illustrate the need for each discipline's separate and distinct existence within the future of medicine.

**Description of research:** To participate in the study you will need to participate in an interview with this research conductor. At the start of the interview, you will be given basic information from a case study, you will then have a chance to ask all the questions you would like to learn about the client in the case study. You will then be asked questions about your own and other discipline's roles in this particular case study. The questions asked will pertain to information regarding this particular case study and may include but not be limited to possible evaluation, treatment procedures, and related possible goals of treatment. The entire process is expected to take approximately 1½ - 2 hours total and will be audio taped for transcription. There are no correct answers. You are basically being asked to think out loud. It is through the analysis and comparison of this reasoning process that the differences between the two therapies will be uncovered and clarified.

1. I understand that the use of human subjects in this project has been approved by the UNH Institutional Review Board for the Protection of Human Subjects in Research.
2. I understand the scope, aims, and purposes of this research project and the procedures to be followed (including identification of any treatments or procedures which are experimental) and the expected duration of my participation.
3. I have received a description of any foreseeable risks of discomfort associated with y being a subject in this research, have had them explained to me, and understand them.
4. I have received a description of any alternative treatments that may be accrued from this research and understand how they may affect me or others.
5. I understand that the confidentiality of all data and records associated with my

participation in this research, including my identity, will be fully maintained.

6. I understand that my consent to participate in this research is entirely voluntary, and that my refusal to participate will involve no prejudice, penalty or loss of benefit to which I would otherwise be entitled.

7. I further understand that if I consent to participate, I may discontinue my participation at any time without prejudice, penalty or loss of benefits to which I would otherwise be entitled.

8. I confirm that no coercion of any kind was used in seeking my participation in this research project.

9. I understand that if I am injured or require medical treatment, I may seek treatment at the University Health Services Center regardless of my status at the University. If I have paid a student health fee, I will not be billed for services. If I have not paid this fee, I will be charged for services rendered.

10. I understand that if I have any questions pertaining to the research or any research related injury I can call Lauryn Morell at (603) 429-0086 and be given the opportunity to discuss them in confidence.

11. I understand that I will not be provided financial incentive for my participation by the University of New Hampshire.

12. I understand that any information gained about me as a result of my participation will be provided to me at this conclusion of my involvement in this research project.

13. I certify that I have read and fully understand the purpose of this research project and its risks and benefits for me as stated above.

I, \_\_\_\_\_ CONSENT / AGREE

to participate in this research project.

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

**APPENDIX C****INITIAL CASE STUDY INFORMATION****CASE STUDY**

**Client:** Mrs. Apple, 72 year old white female

**Diagnosis:** Right hip fracture with a total hip replacement

**Scenario:** Mrs. Apple was just admitted to your Skilled Nursing Facility with orders for an occupational therapy evaluation and a physical therapy evaluation.

## APPENDIX D

## ENTIRE CASE STUDY INFORMATION

## CASE STUDY

**Mrs. Apple**

72 year old female

Widowed

Catholic

2 children - 1 son, 1 daughter - both married and living within 10 miles of the client's home

3 grandchildren ages between 6 & 16 years old

Mrs. Apple lives in a first floor 1 bedroom apartment with 3 stairs to enter, no stairs inside. She lives with her dog "Queenie".

**Diagnosis:** She fell on the ice two weeks ago resulting in a RIGHT HIP FRACTURE with a TOTAL HIP REPLACEMENT

**Scenario:** Just admitted to your Skilled Nursing Facility with occupational therapy and physical therapy orders.

**Surgical precautions** include touch down weight bearing on the right LE, no hip flexion more than 90 degrees, no internal rotation, and no adduction.

**Medical history:** arthritis, pneumonia, appendectomy, HTN

**Social history:** previously Mrs. Apple was an energetic person, usually up by 8:00AM. She performed all self-care (including a shower) and home making tasks (cooking, cleaning, laundry) independently. She also drove a car daily for grocery shopping, and errands, and other activities. She enjoyed an active lifestyle, highly involved in church activities, volunteering at the thrift shop, and donating craft projects for church craft sales. She walked her dog at least 2-3 times each week and she also swam in the local YMCA pool on occasion. She was often baking 'goodies' with or for her grandchildren as well. She is very close to her family and always looked forward to visiting with them.

**Evaluation Results:****ROM:**

UE: Shoulders - WFL, slightly decreased ER

Elbows - WFL

Forearms - WFL

Wrists - WFL

Hands - WFL

LE: RIGHT hip - flexion - 90 degrees

RIGHT hip - extension - WFL  
 LEFT hip flexion and extension WNL  
 Knees - WFL  
 Ankles - WFL

**Muscle Strength:**

UE: proximally - fair+  
 distally - good  
 RIGHT UE slightly stronger than LEFT distally  
 LE: RIGHT hip flexion and abduction and adduction - poor other hip  
 movements fair  
 LEFT hip movements good  
 RIGHT Knee - fair+  
 LEFT Knee - good  
 All ankle movements - good

**Sensation:**

Both UE and LE sensation is WNL

**Edema:**

Slightly edematous in RIGHT medial aspect of knee

**Pain:**

Intensity - On a scale of 1-10, client rates pain at a 7 at worst, and at a 0 at best. The highest level of pain occurs during exercises and when getting out of bed in the morning, and the lowest occurs when lying still.

Location - The client reports pain in right groin area, right lateral hip area, and occasionally in the right medial knee area.

Type - The pain is described as sharp and grabbing usually. At times when it is rated lower on the pain scale it is more of an ache.

**Balance:**

Standing - tolerates standing with walker and contact guard assist of one person, tolerates minimal challenges to balance in standing, but with any further challenge, she requires minimal assistance to recover balance

Sitting - WFL

**Ambulation:**

Contact guard physical assist with an occasional cue for rolling walker placement, for 50 feet (TDWB)

**ADLs:**

Bathing: sponge bath - UE - independent

Private area - independent with minimal assist to get from sit to stand

LE - maximal assist below right knee due to precautions, all other LE independent

Dressing: UE - independent

LE - maximal assist donning and doffing pants & undergarments over right foot & LE, independent over left foot & LE, minimal assist to stand and pull them up to her

waist

Grooming: independent after set-up

Set-up: at this time client requires full set up. Everything has to be placed within reach. She is able to retrieve one or two items with minimal assistance for walker placement and safety, but she tires so easily and so quickly that she is not functionally capable of setting up any part of her ADLs at this time.

**Transfers:**

Toilet: contact guard physical assist with walker

Tub: moderate physical assist with tub bench and cues to remember technique

Chair: supervision with walker

Bed: minimal physical assistance for raising lower extremities up to the bed

**Meal preparation:**

Moderate physical assist and minimal cues for safety related to walker use

**Homemaking:**

Maximal physical assistance with maximal cues for safety and technique to make a bed

Dependent with laundry tasks

Dependent with house cleaning

**Cognition:**

Alert and oriented x3

Fair safety awareness

Fair memory of precautions related to surgery - usually requires minimal verbal cuing and occasional tactile reminder

Slightly impulsive - forgets that her physical limitations are different now due to the fracture and related surgery

Good problem solving skills

Fair abstract reasoning

**Perception:**

Glasses for distances

Intact scanning, convergence, figure ground, spatial relations

Minimal depth perception difficulties noted during ambulation on uneven surfaces & stairs

Intact right/left discrimination

Intact body awareness

**Discharge Plan:**

Return home with or without home services as necessary

## APPENDIX E

### INTERVIEW QUESTIONS

During this interview I would like you to think out loud as much as possible. There are no right answers. I am looking for the thought process behind your answers as well as your answers.

**\*Consider that you are about to evaluate Mrs. Apple, what are you thinking about?**

**-What questions do you have about Mrs. Apple?**

**-How would you go about getting the answers for those questions?**

**\*What are your long term goals for Mrs. Apple?**

**\*How would you choose treatment activities for Mrs. Apple?**

**-What might some treatment activities include?**

**\*Are there important areas which you do not want to overlook when evaluating or treating Mrs. Apple?**

**\*Give me some examples of how you would describe your discipline's role in Mrs. Apple's recovery to Mrs. Apple herself.**

**\*To what extent would you involve other members of Mrs. Apple's life in her treatment?**

**-How would you describe your discipline's role to Mrs. Apple's family?**

**\*What do you think Mrs. Apple's goals might be?**

**\*How would the input of all of these goals weigh out in the focus of your treatment plan?**

**-What goals would you focus on primarily?**

**\*Describe your therapy program for Mrs. Apple.**

**-What would your priorities be?**

**-What type of treatment setting/environment would be your first choice?**

**-Why?**

**\*What personal qualities would be important to use when working with Mrs. Apple?**



**\*Who else would you think about as you contribute to Mrs. Apple's recovery program?**

**\*Is this therapy program, that you described for Mrs. Apple typical of one you would follow with a similar client in this facility?**

**-If no, why would it be different?**

**-What influences those differences?**

**\*Which of the topics in this interview are those you typically consider when working with a client?**

**-Where do your ideas for goals usually originate from?**

**-What areas of dysfunction are you typically able to address?**

**\*As a physical therapist, what do you see as an occupational therapist's role in this case?**

**\*As an occupational therapist, what do you see as a physical therapist's role in this case?**