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Occupation-Based Hand Therapy: A Practice Guide for Entry-Level Therapists

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OCCUPATION-BASED HAND THERAPY:
A PRACTICE GUIDE FOR ENTRY-LEVEL THERAPISTS

by

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A Scholarly Project

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

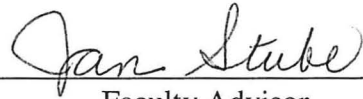
Master's of Occupational Therapy

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This Scholarly Project Paper, submitted by David Braski in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.



Faculty Advisor

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Occupation-Based Hand Therapy: A Practice Guide for Entry-level Therapists

Department Occupational Therapy

Degree Master's of Occupational Therapy

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CHAPTER I

INTRODUCTION

According to Dr. Sterling Bunnell, MD, “next to the brain, the hand is the greatest asset to man and to it is due the development of man’s handiwork” (as cited in Mackin, Callahan, Skirven, Schneider, & Osterman, 2002, p. XIX). The hand plays an essential role in the accomplishments and triumphs achieved by the human being in his natural environment. The human hand is equipped with a wide variety of function and usefulness in activities that we participate in throughout our daily lives. Loss of function in the hand due to injury or illness can lead to decreased ability to succeed in everyday activities performed by an individual.

The profession of occupational therapy focuses on these components of functioning by “helping people do the day-to-day activities that are important to them, despite impairment, disability, or handicap” (Neistadt & Blesedell Crepeau, 1998, p. 5). According to the World Health Organization or WHO disability, impairment, and handicap are descriptors utilized when an individual displays a loss or abnormality in physical or psychological structure or functioning (WHO, 1980). When people become injured, acquire illnesses, or are born with illness they often have difficulty performing the activities they desire and need to for survival or living a higher quality of life. Occupational therapy utilizes the science and art of occupation (meaningful life activities) along with knowledge of life skills, cognitive functioning, physical functioning, human development, assistive technology, and much more to increase an individual’s functional performance within their environment.

An area of occupational therapy that focuses on the treatment of disabilities related to hand functioning within daily living is the subspecialty of upper extremity rehabilitation or hand therapy. The title of hand therapist was coined by the six founding therapists of the American Society of Hand Therapy and was established as a subspecialty area of practice for both physical and occupational therapists in 1975 (Pendergast Lauckhart & Kasch, 2004). Hand therapy is a unique and dynamic profession revolving around the rehabilitation, prevention of injury and elimination of disease in the upper extremity. In this area of practice, therapists are trained in the use of unique assessment tools and intervention strategies to establish the physiological healing of tissue. When a human hand suffers from disease or injury an individual suffers on a physical level, but may also experience a psychosocial interruption as well, stemming from loss of functioning and role identity. Hand therapists have the challenging responsibility of remaining holistic and client-centered throughout practice to assist the client with maintaining motivation with a home program, purpose/meaning of occupational roles, and an optimistic yet realistic attitude about the future. Therapists provide clients with the appropriate tools for establishing and maintaining a functional capacity to be able to participate fully and successfully in their home/community environment.

Presently the Hand Therapy Certification Commission or HTTC defines hand therapy as the act of rehabilitation on the upper extremity which is a merging of both occupational and physical therapy theories to gained combined knowledge of the upper quarter, total body function, and individual activity. Hand therapists utilize specific assessment tools and skills in treatment to assist in the prevention of dysfunction,

restoration of past functioning, and reversal of pathological progression. Hand therapy is performed to enhance performance and participation in daily life activities to those individuals with injury and disease of the upper extremity (Hand Therapy Certification Commission, n.d.).

According to the HTCC there are specific qualifications and testing procedures necessary to acquire the credentials of certified hand therapist or CHT. In order to achieve these credentials an occupational or physical therapist is required to have been a practicing therapist for five years or more, and have accumulated 4,000 or more hours of direct practice in upper extremity rehabilitation. “A comprehensive test of advanced clinical skills and theory in upper quarter rehabilitation” (Hand Therapy Certification Commission, n.d., p.1) is given to ensure the competency of the therapist in this area of practice. The HTCC has required the recertification of the CHT every five years to ensure the demonstration of “continued professional development and competency” (Hand Therapy Certification Commission, n.d., p.1).

Hand therapy directly ties into the core philosophies of the practice of occupational therapy by having a direct impact on the enhancement and participation of an individual’s occupations and roles. Historically the majority of rehabilitation therapists focusing on the treatment of the upper extremity have been occupational therapists, due to the high contribution the human hand has to functioning successfully in everyday life.

Occupational therapists and/or hand therapists provide services to clients by utilizing a theoretical basis for practice to guide the way they assess, treat, and interact with the individuals they serve. It is up to the individual therapist or facility to determine

what theoretical frame of reference works best to serve the clients being treated in that occupational therapy setting.

Occupational therapists who utilize an occupational-based theoretical approach to treating their clients focus greatly on the client's individual needs/desires and assess each individual's unique occupational roles and performance in their community context. Stating in her 1995 Eleanor Clarke Slagle lecture, Trombly (1995) advises occupational therapists to place a strong emphasis on looking at and utilizing occupation as both a means and an end to increasing functioning in our clientele. This means that occupational therapists should continue to focus on increased occupational performance as the end outcome of an individual's treatment, but also that the therapist should engage the client in therapeutic occupation and purposeful activity as a means to increasing functioning throughout the therapy process (Trombly, 1995).

The subspecialty area of hand therapy in occupational therapy has historically had a theoretical focus on the medical model of practice due to the knowledge of the intricate anatomy of the hand, physiological healing of tissue, and increased use of high-tech equipment to treat and rehabilitate the upper extremity. An occupation-based focus to treatment assessments and intervention has taken a back seat to exercise/structure-based approaches due to the increased ease, decreased therapists preparation time, researched evidence, and tradition seen within the medical model.

According to Cooper and Evarts (1998), the medical model is utilized more often in hand therapy due to the trends in research being predominately quantitative and structural in nature. The authors state that there is a large gap in research of occupational-based practice to demonstrate the effectiveness and necessity for this trend

in hand therapy practice. Many journals and practice magazines present research on hand therapy that has focused solely on the physiological healing of tissue and exercised based protocols for practice. Essentially this research is fundamental for the knowledge base of physiological healing of hand tissue, however, according to Debbie Amini (2004), this “can detract from the client-centered, holistic focus encouraged throughout the [occupational therapy practice] Framework, [which] is part of our education and clinical training” (p.12).

Despite the limited amount of research studies available that demonstrates the effectiveness of occupation on hand rehabilitation, there is still evidence that there is a need for change in hand treatment approaches. A few current research studies have shown how incorporating therapeutic occupation into the treatment of clients can increase the meaning and purpose in the individual’s assessments and interventions, which leads to increased motivation and participation. The increased participation in an occupation involves movement and exercise necessary for an increase in physiological healing of tissue after and illness or injury. The focus on occupation can also assist with psychological hardships associated with loss of functioning or disability. Many individuals define who they are by what they can do; losing one’s abilities can have a devastating psychological effect to many clients. Often, clients can gain self-esteem and reassurance in their abilities to complete a task successfully, by participating in activities they performed independently, post-injury/illness. Overall, there is a great need for further research and study in this area to assist in integrating occupational practice into use in hand therapy.

Besides the lack of research there are also problem areas associated with the application of occupation-based hand therapy. Many entry-level and experienced therapists alike have difficulty with incorporating occupational approaches into their hand therapy practice. There is a large amount of information to learn and retain regarding physiological healing of tissues and use of technology in hand therapy. Many times entry-level therapists become overwhelmed with all the information and have difficulty with focusing on both structured and occupation-based treatment. Also entry-level and experienced therapists have difficulty with developing and initiating an occupation based program. They don't know where to start or how to incorporate a new approach into their current hand therapy procedures. Often, barriers such as tradition, limited knowledge of language/terminology, an undefined theoretical model of practice, a lack of involvement in national and local professional organizations, poor upkeep with current literature published in professional journals/magazines, and/or restrictions from administrations contribute to the deficiency in the implementation of occupation-based hand therapy.

There is an overall lack of guidance and support for therapists who want to utilize occupation-based hand therapy. Amini (2004), states that it is difficult and challenging for therapists to initiate an occupational focus into practice with the high-tech structural focus of hand therapy. The author praises the use of technology and new findings in hand rehabilitation; however she wants therapists to have guidance to incorporate an occupational approach around this technology to ensure an increased sense of purpose and meaning within the individual in therapy.

It is essential for the practicing hand therapist, especially at the entry-level to have a mentor to guide them through and teach them essential information for success in the highly demanding area of hand therapy. Another essential component to effective entry-level hand therapy practice would be a practice guide to assist in incorporating an occupation-based approach to treatment, assessment, and research. By creating a guide for incorporating occupation into hand therapy practice the entry-level therapist can more easily assist the client in improving functional performance for success in everyday activities of daily life.

In order to create a successful guide for entry-level therapists to follow, a theoretical model of practice was to be selected as a guideline for creating the products presented in this document. The Occupational Performance Process Model or OPPM (Fearing, Law, & Clark, 1997; Law, Baum, & Baptiste, 2002) has a holistic and client-centered focus on occupation-based occupational therapy practice. This holistic approach along with the seven clearly defined stages of this theory provides the necessary information and support required for an effective occupation-based hand therapy practice guide.

Throughout this entire scholarly project the reader will be presented with information regarding the description, implementation, benefits, and limitations, of occupation-based practice on the treatment of disability, impairment, and handicaps seen in hand injuries and illness. The following chapters contain information that focus on current hand therapy practice trends and problem areas. Information regarding the current research and developments in the area of occupation-based practice will be presented and analyzed. Further, a product will be presented and summarized regarding

the effective use of occupation-based hand therapy practice for entry-level hand therapists.

CHAPTER II

LITERATURE REVIEW

All occupational therapy practice has a theoretical basis to support the way intervention and assessment is implemented. This literature review looks at the philosophy and theory surrounding the use of occupation-based methodology in occupational/ hand therapy practice. Expert opinions from established clinicians and examples of studies that researchers have conducted regarding the effectiveness of therapeutic occupation, will be highlighted within this review as well. Overall the information found within this literature review will focus on the development, establishment, and implementation of occupation-based practice in the rehabilitation of the upper extremity.

A major focus in occupational therapy practice is on human occupation which tends to be the essence of an individual's role identity and self-esteem. Often the meaning and purpose of the activities we do in life go unforeseen until they are absent from our lives. Illness, injury, and other disabling factors can inhibit our participation in meaningful occupations that make us who we are as human beings. The profession of occupational therapy recognizes this phenomenon and works on restoring maximum functional performance for optimal independence. Therapists have also used this philosophy of occupation to enhance motivation and increase effectiveness of therapy intervention throughout treatment. This means that occupation is utilized as both a means and an end to increased independence for the individuals being treated. As Catherine Trombly stated in her 1995 Eleanor Clarke Slagle lecture, both meaningfulness and purposefulness are two characteristics present in each phase of occupation. Trombly

defined these components of occupation by stating that “purposefulness organizes (behaviors) and meaningfulness motivates” (1995, p.970).

According to her lecture, this way of viewing occupation is sometimes overlooked by many practitioners. Many therapists tend to focus purely on the outcome of therapy and the restoration of function. Often the occupational therapist neglects to utilize purposeful activities and therapeutic occupations to enhance intervention and facilitate more effective outcomes. A look back into the history of the occupational therapy profession shows us that therapy was used as a means to an end to increase function. Trombly (1995) challenged the occupational therapy profession to widen its view on occupations as a means of remediation as well as end product. This involves the implementation of occupation-based practice in the clinic as well as furthering evidence-based practice by researching the effectiveness of occupation-based interventions on clients’ therapy process (Trombly, 1995).

An example of research on occupation-based practice can be seen in a comparison study by Zimmerer-Branum and Nelson (1995) who investigated the preferences elderly residents have in regards to occupation-based activity versus rote exercise performed in a nursing home setting. The researchers used a convenience sampling procedure to find 52 elderly nursing home residents from three skilled nursing facilities. Each participant had the choice between an occupation-based activity/exercise and a rote activity/exercise. The two choices presented to the participants included an occupation-based activity which involved dunking a basket ball into a child size basketball hoop, or a rote exercise activity that included arm movements similar to dunking a basketball. Thirty-six of the 52 participants chose the occupationally embedded exercise showing a statistically

significant z score of 2.77. Participants demonstrated a mean of 21.86 repetitions compared to the 9.0 repetition mean of the rote exercise. The number of repetitions was not relevant to this particular study but demonstrated an increase in motivation and participation when meaning was added to an activity. The researchers placed an emphasis on the use of occupation-based treatment regimens within therapy settings, due to the motivation of the participants to engage in meaningful activities. According to the study occupational therapists have the opportunity to wield the power of meaningful activities to increase participation in therapeutic occupations for added physiological improvements. The researchers concluded that a focus on the unique structure of the individual's development and what is meaningful to that person will assist in increased outcomes of functional performance in occupation. This means that an occupational therapist needs to utilize interviews and casual conversation to fully understand the client's unique occupational needs. Understanding these unique needs will assist in increasing skills and abilities surrounding functional performance in those specific areas that the client finds meaningful. Human beings possess a unique desire to seek out participation in meaningful occupations. Occupational therapists have the knowledge and ability to harness this desire and help the client to participate in activity essential to their recovery and rehabilitation (Zimmerer-Branum & Nelson, 1995).

Another example of how therapists can harness the power of therapeutic occupation in a clinical setting is evident in a comparison study by Thomas (1996). Instead of looking at choice, this study focused on the physical outcomes associated with occupation-based interventions compared to rote activities and imagined occupation. Comparisons were made with the amount of repetitions, heart rate, and amount of rest

utilized in occupation-based, imagery-based and rote exercise-based activities. Forty-five elderly women over 65 were selected to participate in this study from local area churches and retirement homes. The criteria for participation included being an independent living female over 65 years of age, absent of visual problems, orthopedic difficulties, and cardiac conditions. Each individual was randomly selected and placed in one of three groups pertaining to three specified exercises. A participant would either be in a group that actually kicked a ball (material-based), kicked a pretend ball (imagery-based), or performed manual exercises utilizing similar muscles used in kicking a ball (rote-based). Participants were asked to perform activities until fatigued. Participants in the material-based occupational form activity performed significantly more repetitions and required more of a self-perceived resting period than any other group. There were no significant heart rate differences between the three groups. The researcher concluded that the high repetitions and the requirement for more rest with material-based activity/exercise demonstrated an increased need and desire to participate in the functional occupations. An additional conclusion is that the desire for occupational participation is again linked to the increase in meaning that an occupation holds to the individual (Thomas, 1996).

These studies have shown that there is more to what we do as human beings than just moving through space. Our physical actions during an occupation hold meaning and purpose to us, which demonstrates how we and others perceive ourselves. During a majority of occupations the human hand is a key “tool” in the success or failure of a particular task. Occupational therapists look at the many aspects of a person’s functioning within their occupations, whereas hand therapists specifically focus on functions related to the hand and upper extremity. Although a hand therapist is not

required for complete rehabilitation of the upper extremity, a subspecialty area of hand therapy in the areas of occupational or physical therapy may be beneficial due to the vast complexity of the hand and the vast array of functions held by this appendage.

A recent study by Case-Smith (2003) evaluated the overall outcomes and perceptions of clients who received occupational therapy services for upper extremity rehabilitation. The researcher wanted to know if participants perceived the changes in their performance, noted individual progress in functional performance, and if they perceived changes in their health related quality of life. The researcher also looked at and compared individual scores on the COPM or Canadian Occupational Performance Measure (Law et al., 1990) to see if they correlated with the Disability of Arm, Shoulder, and Hand questionnaire or DASH (Institute for Work and Health, 1997). Thirty-three clients from 5 Ohio-based clinics were selected to participate in the study. The COPM was used to guide the occupational therapy sessions and measure the outcomes of the therapy. The DASH questionnaire also was given to the participants before and after the 6-8 week therapy treatments. The study concluded that the participants made strong positive gains in functional measures following the client-centered occupational therapy. With the COPM the improvements were statistically significant ($p < .001$) and the total effect size was large with a average of 2.45 on the performance section and a 2.52 on the satisfaction portion of the assessment. The DASH test had a similarly significant t score of $p < .001$ and the effect size was significant with a 1.50 in part one and a 1.43 in part two of the questionnaire. This article demonstrated the ability occupational therapy has to facilitate an increase in functional performance within hand therapy with the engagement in occupation as a rehabilitation tool and outcome (Case-Smith, 2003).

Hand therapy as a subspecialty has its own unique set of guidelines and practice theories to guide treatment and assessment of the upper extremity. Kimerle, Mainwaring, and Borenstein (2003) authored a relatively new model for guiding upper extremity rehabilitation assessment and treatment, which is named the Functional Repertoire Model of Hand Function. This model promotes the focus on the identification and utilization of intact hand skills available to the client instead of only looking at the limitations seen in functioning. The Functional Repertoire Model allows the therapist to look at the full spectrum of hand functioning including: physical, psychosocial, hand roles, hand actions, task performance, and other essential components. Effective use of this model requires the therapist to focus on observing how the client performs functionally within their daily life activities. Performing interviews is essential in this model as well. In order to get a deeper understanding of the psychosocial effects of the hand injury and how it is affecting the individual's personal and professional life, the therapist must inquire about functional performance in the home, work, and community contexts. This model also takes on a holistic view of the spectrum of hand dysfunctions by staying away from focusing only on hand injuries. Individuals with developmental and orthopedic challenges can fully benefit from this model of practice (Kimerle et al., 2003).

The information provided in this practice model allows the therapist to incorporate an occupation-based approach to treatment and assessment. The therapist has the ability to formulate a more occupation-based treatment plan that incorporates all areas of the client's life for maximum participation and increase in functional performance. The specific analysis and observations required in this model can help occupational therapists more accurately assess and treat clients' specific limitation along with helping

them take advantage of their current strengths. The model leads practitioners away from the use of the medical model (which focuses on structure and physiological components of the hand) and allows the occupational therapist to place more emphasis on the entire functioning of the person (Kimerle et al., 2003).

Being able to assess and evaluate an individual holistically while concentrating on the unique characteristics of their functioning is important when considering the ability each client has to adapt to their illness or injury. Human beings differ in the way they perceive and respond to injury and illness. In a combined quantitative and qualitative study by Chan and Spencer (2004), a group of five participants were purposively selected using the convenience method of selection, from a larger longitudinal study involving acute hand injured participants. The purpose of the study was to examine similarities and differences among physical and psychosocial adaptation, engagement in occupations and relationships, perceived outcomes and expectations, and adaptive issues/strategies in clients with hand injuries. The five participants involved with this research project had acute hand injuries consisting of problems related to nerves, tendons, and fractures in the hand and upper extremity. Each participant received outpatient therapy 2-3 times a week for at least 8 weeks, which placed them in the severe category (Chan & Spencer, 2004).

Quantitative research methods were utilized to measure physical recovery and to collect specific psychosocial components used for adaptation by each participant. An in-depth individual interview was used by the researchers to measuring the impact of injury on each individual's daily life. This data was utilized to formulate a precise picture of what each individual participant experienced while recovering from an upper extremity injury (Chan & Spencer, 2004)

After analysis of the data, Chan and Spencer (2004) found “that the relationship between physical recovery and psychosocial adaptation is not a simple and direct one” (2004, p. 136). Participants throughout the study had many similarities, but also had many individual differences. The authors stated that the reason for the differences stemmed from the fact that every person has different experiences and places varying value on different things throughout their life. Specific participant differences included motivation with work related occupation, relationship differences, context expectations, and adaptive strategies. Throughout the study the researchers observed that a majority of the participants initially displayed optimism with their recovery, but later demonstrated anger and frustrations when their recovery process took longer than they had originally thought. The findings of this study indicate the importance for the inclusion of a holistic view of the individual being treated. Each individual that we serve in occupational therapy has different experiences and backgrounds that bring about different meanings to their own individual occupations. Occupation-based theories challenge the practitioner to find and utilize these differences to enhance the client’s rehabilitation and daily life experiences (Chan & Spencer, 2004).

Motivation of clients to participate in their therapy services in the clinic setting and within the home/community context can be a frustrating and difficult area for all occupational therapists. A key component of the occupation-based approach to practice is its apparent advantage of increasing and maintaining the client’s motivation. A study by Chai Lai looked at “similarities and differences between motivational constructs of hope and optimism, attitude toward disability, goal setting, and perceived social support at the work place with or without work related injuries” (2004, p.6). The researcher used

a purposive sample method to fill a diverse list of inclusion criteria for the study. Eight participants were selected from a larger group of participants in another mixed design study. A qualitative design was utilized by the researchers to help gain an in-depth view of the specific motivational components each person utilized throughout their lives. Fifty percent of the participants had work related injuries and the others had injuries acquired outside the work environment. Within the motivational constructs of hope and optimism finding indicated similarities between participants with work related injuries and those with non-work related injuries. The majority of the participants were hopeful and optimistic for a 100% recovery. Attitudes towards disability showed equal similarities in both parties revealing negativity towards their loss of functioning. Both sets of participants also displayed an increase in motivation with the added ability to contribute to the goals being set by the therapists. The last area of the study looked at the perceived social support in the work settings, both groups experienced differences in this area do to the differences in work dynamics a relationships (Lai, 2004).

Upon conclusion of the study, Chai Lai reported that the listed motivational constructs of hope and optimism, attitude toward disability, goal setting, and perceived social support in the study were an “influence (on) patients’ motivation for recovery in hand rehabilitation” (2004, p.16). The author stated further that having information regarding these influences of motivation for their clients can help therapists to design and implement effective therapy services. Overall the researcher wanted therapists to consider each client’s motivation as essential to their overall recovery (Lai, 2004).

Along with the psychological aspects of injury and recovery there are the physiological aspects of activity and movement that are also key components to the

recovery of an upper extremity disability. Paquette (1998), in her expert opinion article, explained how movement and activities are important to the physiological healing of the tissues of the hand. Edema control, increased range of motion (ROM), and reduced immobilization are a few examples of the benefits seen by the increased amount of movement and activity with the hand post-injury. Movement of the musculoskeletal aspects of the hand can increase lymphatic drainage for decreased edema and may also stretch, lubricate, and loosen contractured or stiff joints for increased ROM. The author gave examples of emphasis on the use of activities within the clinical setting to achieve the desired outcome of movement which leads to the physiological healing of tissue in the hand. Within the article, the author points out how an activity can shift a client's focus off of pain and onto what their hand can accomplish and/or how far they have come with their rehabilitation. The author made a substantial justification towards the importance of movement and activity to ensure proper rehabilitation of the hand. She wants the hand therapy profession to realize and utilize the use of activity to allow "clients to begin relating to people and objects, focusing on what their hands can do and how much their hands have improved over time with each task performance" (Paquette, 1998, p.30).

Awareness of the use of activity and occupation as a therapeutic medium is crucial to the instillation of occupation-based hand therapy into upper extremity rehabilitation settings. A hand-full of experts in the field of hand therapy have shared their views on this changing trend in hand therapy practice. In an article by Cooper and Evarts (1998), information and expert opinions are shared by two highly experienced and educated practitioners/researchers specializing in occupation-based upper extremity

rehabilitation. The authors placed a large emphasis on the need for the development and initiation of purposeful activities and therapeutic occupations into hand therapy. They stated that the hand therapy specialty is losing its occupational therapy roots, evidenced by the increased use of the medical model and structure orientated approaches to upper extremity rehabilitation. Case study examples were provided to increase awareness of therapeutic occupations' effectiveness/efficiency with upper extremity treatment.

Research in hand therapy, according to the authors, is predominately quantitative and structure specific. They challenge the occupational therapy profession, as a whole, to take time to research and utilize occupational-based therapy in their practice. This article helped demonstrate the need for further research and treatment interventions surrounding occupation-based practice in hand therapy.

Amini (2004) more recently focused on bringing the practice of hand therapy back to its historical roots by challenging hand therapists to inform themselves and utilize effective occupation-based therapy into their own practice. Despite increases in technology and research Amini wants hand therapists to increase their focus on being “renaissance therapists” and redirecting their clinical thinking to the roots of the profession, which are embedded in occupation (Amini, 2004, p. 11). Emphasis for this change was placed on the increased benefits the clients receive from the engagement of occupation within and outside the clinical setting. She stated that the increased use of occupations introduces the client to a sense of purpose and meaning that leads to new levels of motivation and better physical and psychosocial outputs during and after participating in therapy. The author does realize that changes especially in the high technology world of hand therapy are difficult to put into an occupational focus. She

emphasized that there is a definite need for this high technology as well as for structural approaches to therapy to ensure physiological healing of the individual. However, what she is trying to instill is the importance of incorporating occupation alongside traditional medical-based techniques for the increase in client's functional performance (Amini, 2004).

A great importance is placed on client-centeredness and holistic approaches to treatment with occupation-based hand therapy, which means keeping the client engaged throughout all aspects of therapy. Amini stated that it is important to integrate client specified occupation into everyday treatment, so that the client has the opportunity to engage in activities that he/she can relate to occupational roles, which can help them maintain their identity. Education such as, informing the client on why the therapist is incorporating preparatory and purposeful activities throughout therapy and how they benefit occupational performance can help the client feel more in control of their therapy session. Knowledge they have gained about their treatment and injury will help increase motivation and participation in home programming as well as clinical treatment sessions. Overall, the author is telling the hand therapy profession to utilize the roots within the occupational therapy profession to help add strength to the treatment and assessment processes (Amini, 2004).

The focus area of this chapter has highlighted the advantages and benefits surrounding the use of occupation-based approaches to upper extremity rehabilitation within the current research. Although a majority of the literature emphasized a push and demand for change in hand therapy rehabilitation, little is discussed regarding the barriers and obstacles limiting this change. Amini confided within her article that "reintegrating

occupation-based hand therapy into hand therapy practice can appear daunting for the therapists that work in a medical-model hand therapy clinic” (2004, p.12). Overall, it appears that the time and commitment added by the task of implementing a new approach, is the main barrier to occupation-based therapy. Additional assessment time, creating new assessment tools and development of more occupation-based interventions and home programs increases time that is not reimbursable. Amini (2004) suggested creative ways of reducing this time factor by combing treatment and assessment time. For example doing select subtests of the COPM or an occupation-based non-structured interview during splint fitting or modality implementations sessions can save time. She also suggested the utilization of certified occupational therapy assistants (COTA) for the gathering of essential occupational information. Barriers are meant to be broken for progressive practice and resources like Amini’s (2004), Cooper’s and Ewart’s (1998), as well as other guidance material help problem solve the difficulties of implementing an occupation-based program.

Summary

The research presented in this chapter has looked at the many areas associated with creating, implementing, and researching occupation-based hand therapy. Many of the theories governing the practice of occupational therapy support the use of occupation as a therapeutic medium. Trombly (1995) reminds the profession to focus on the foundation of occupational therapy; not only to focus on occupation as an end result, but to also utilize occupation as a means to achieving a successful end. This focus has become more widely researched and expanded upon within the past few years to emphasize the use of occupation in hand therapy settings. Kimerle et al. (2003) have

developed a specific practice theory to assist hand therapists with facilitating the use of therapeutic occupation and purposeful activity in practice. This model encourages the practitioner to focus on the client's hand abilities and focus less on the dysfunction in order to increase function and create a more positive/motivating experience for the client.

The chapter also looked at some of the more recent studies facilitated by leaders in the field of occupational therapy, that focus on the comparison between occupation-based therapy intervention and rote exercise or activity imagery. Zimmerer and Nelson (1995) and Thomas (1996) created similar studies that compared the effectiveness of occupation-based activities with rote or imagery-based activities. Researchers had participants perform the task while they recorded differences in physiological and psychological status among the activities. These research studies help to support the development and implementation of occupation into everyday occupational therapy practice.

Other researches have looked more specifically at hand therapy and the psychological ties to physiological injury or illness to the hand. Chan and Spencer (2004) examined the adaptation components and strategies people experience while being treated for injuries of the hand. Another study by Chan Lai (2004) analyzed the psychological aspects on hand rehabilitation, more specifically in the area of motivation. The study focused on the differences in motivational constructs between participants with work and non-work related injuries. These studies demonstrated to therapists that there are many different and essential pieces required for complete restoration of functioning. Many times the function that is taken away the hand therapy clients is devastating. Psychosocial and mental health issues surface when functioning is lost and role

identification is altered. Incorporation of meaningful occupations and purpose into the treatment process helps to facilitate more positive psychological outcomes. To be a well rounded therapist a holistic, client-centered view needs to be administered to provide the best possible treatment for each individual.

Many experts in the field of occupational therapy as well as hand therapy have contributed information to facilitate the awareness and define problems in the overall realm of rehabilitative health care. For example, Cooper and Evarts (1998) demonstrated the need for the development and integration of occupation –based practice into upper extremity rehabilitation settings. Again, Amini (2004), established a need for the change in hand therapists’ treatment approaches. Amini expressed her views on the current trends in hand therapy practice as being technologically and structurally driven. This, according to Amini, leaves no room for true occupational assessment, intervention, and participation, which is the root of occupational therapy and is necessary for role identity, self-esteem, and occupational performance. Again this author challenges the hand therapy profession to develop new and innovative ways to increase the use of occupation in hand therapy facilities without losing the physiological advancement to tissue healing. A balance is needed to ensure the best treatment for every client being treated.

Entry-level as well as novice therapists leave college with a plethora of knowledge related to occupation and occupation-based treatment implementation. These therapists have an idea of what needs to be done to make their hand therapy settings more occupation-based but lack the guidance or mentorship for balancing these skills within actual practice. A guidance tool would be helpful to beginning therapist to assist them in establishing an occupation-based practice while learning the complicated medical aspects

of hand therapy. Amini (2004) as well as Copper and Evarts (1998) accelerated the use of guidance tools for the development of occupation-based hand therapy, by giving essential criteria to what a practice should and should not look like. All authors gave their own experience and guidance to help with creating informal criteria for implementing an occupation-based hand therapy program. These examples support the need for the creation of a tool for helping hand therapists establish and maintain occupational-based practice.

In regards to the information provided in this chapter a need has been identified and support has been established for the development of a guide for entry-level occupational therapists for implementation of occupation-based practice in an upper extremity rehabilitation setting. A guide manual for evaluations and intervention would utilize this current information to help entry-level therapists increase knowledge of the effectiveness of occupation-based hand therapy and how it can easily be implemented into all aspects of hand therapy practice.

CHAPTER III

METHODOLOGY

The need for change in the approach of upper extremity rehabilitation was demonstrated in the literature presented in Chapter II. Researchers and experts have explored many aspects of the occupation-based approach to occupational therapy and hand therapy. Their findings have indicated the benefits surrounding the utilization of occupation-based assessment, treatment planning, and intervention. Authorities in the area of occupation-based therapy, such as Zimmerer-Branum and Nelson (1995) have researched and compared occupation embedded activity to exercise or rote-based interventions, and discovered increased motivation and response to treatment when an occupational task is performed with elderly clients within a nursing home setting. There is evidence within the literature supporting the effectiveness of occupation-based hand therapy; however the literature points out limitations that are apparent within the implementation of this approach.

The literature acknowledges that there are limiting factors relating to time restrictions and approaches of one's facility, that often limit the use of occupation-based treatment. Juggling a busy schedule and balancing physiological healing with occupation-based treatment approaches can be overwhelming and time consuming for the therapist. Amini (2004) acknowledges the limitation of time when utilizing occupation-based hand therapy treatments. Adding or altering assessments, creating new clinical interventions and home programs can be very time consuming for many therapists. Often entry-level therapists are equipped with the knowledge and education necessary to implement these approaches, but may not utilize their skills due to increased pressures on

their learning new treatment-related information for rehabilitation of the upper extremity. The time factor is exaggerated further when entry-level therapists are learning the policies and procedures of their new facility.

Due to these challenges to novice therapists in hand therapy intervention, products were developed for this scholarly project that utilize the information presented in the literature and assist an entry-level therapist with implementing an occupational-based treatment approach within their hand therapy practice. The products take into consideration stressors evident for entry-level therapists that relate to time and organization. Through professional literature and references, research was conducted to gain knowledge of the current trends, practice patterns, and research available in the area of occupation-based hand therapy. Research evidence was collected that assisted in substantiating the need for guidance in this area of occupational therapy. The author reflected on his own personal experience relating to becoming an entry-level therapist in the near future, when deciding which form of guidance within occupation-based hand therapy practice would be most beneficial. The results of the product creation process were (a) an easy to follow practice practice guide, (b) an occupation/activity log, and (c) an interview practice guide for initial assessment that an entry-level therapist can use for implementing an occupation-based approach to rehabilitation of the upper extremity.

In regards to all the products, a decision was made as to the optimal theoretical model for implementing an occupation-based approach into hand therapy. In order to create application ease for the therapist, the products required a model that had an underlying systematic or sequential approach to therapy. The products also required a theoretical model that had a universal language and was clearly understood by the

majority of entry-level therapists. The chosen theoretical model had to convey consistency with the current research involving occupation-based approaches.

After researching the many occupation-based models and theories available, the Occupational Performance Process Model or OPPM (Fearing, Law, & Clark, 1997; Law, Baum, & Baptiste, 2002) was selected to be used for each product. This model focuses on the facilitation of holistic, client-centered occupation-based treatment through the use of seven specific stages. Each stage contains information regarding the essential components necessary to develop and implement a client-centered and occupation-based approach to occupational therapy treatment.

After the theoretical selection process, the next step was to develop products that were easy to understand and implement into practice. Each component of the products were written specifically in accordance with the OPPM (Law et al., 2002). The practice guide, daily log, and interview practice guide were written in the author's own words and thoroughly reflect the OPPM's focus within the realm of occupation-based upper extremity rehabilitation.

The practice guide was created by utilizing the specific stages of the OPPM. The practice guide is presented in Chapter IV. The information presented in this guide used the OPPM stages to meet the needs of entry-level hand therapists and demonstrated proper integration of occupation-based practice.

The first tool created was an interview practice guide available in Appendix A of this document. This product is a structured practice guide that was created to guide entry-level therapist with the evaluation process. A substantial number of questions were developed to be used at the initial evaluation with a client of hand therapy. Overall, the

questions help the therapist establish a stable history of the client's past and current occupations. Prior to the creation of this product, research was done on other occupation-based evaluation tools available for therapists. The research denoted that questions needed to be open ended and truly focused on an individual's home/community occupations. After the completion of the practice guide, further development was needed to establish practice tools necessary for the proper evaluation of occupation-based treatment under the OPPM. Evaluation tools such as the Canadian Occupational Performance Model or COPM (Law et al., 1990) would work well with this model; however the tools presented in Appendices A and B utilize specific questions and guidance geared toward upper extremity rehabilitation.

The third product, an activity/occupation log was created to assist the therapist and client in developing and evaluating the use of an occupation-based home program. This product is presented in Appendix B. It contains five open-ended columns of information for the development of occupation-based home programming that is client-centered, holistic, and fits the client's specific occupations. Following the OPPM's (Law et al., 1990) structure, the log allows for collaboration between the client and therapist in the establishment of occupations and performance components as interventions utilized in this home program. There is also a section available for clients to self-evaluate their strengths and limitations in regards to applying the occupations in their home environment. When the log is analyzed later, a final section allows the therapist and client to reflect on the entire home program process and create suggestions for future success in that particular occupation.

Each of the three products

ERROR: timeout
OFFENDING COMMAND: timeout

STACK:

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CHAPTER IV

PRODUCT

Introduction to Product

The purpose of this scholarly project is to introduce entry-level and novice occupational therapists to the use of occupation-based hand therapy in an upper extremity rehabilitation setting. Oftentimes entry-level therapists starting in hand therapy practice have a difficult time with the vast amount of information involved in this area of practice. The physiological and structure-specific information needed to assist in tissue healing is crucial in the full rehabilitation of the upper extremity. Demands on an entry-level therapist relating to this physiological aspect include: physical agent modalities, proper splinting techniques, wound/scare care, contraindications/precautions for treatment, advanced knowledge of hand anatomy, and much more. The occupational aspect of hand therapy is often focused on minimally by entry-level therapist overwhelmed by these increased demands for their mental and physical performance. Occupation-based approaches are often emphasized and thoroughly taught in occupational therapy programs around the country. Many times this information is lost by the overwhelming need for the integration of new information and technology involved in hand therapy. This guide was created to help the entry-level therapist organize and reinforce the aspects of their occupation-based therapy educational background, so that the therapist can provide the best treatment possible that fully supports their profession.

Occupation-based Hand Therapy: A Practice Guide for the Entry-level Practitioner

Introduction to Guide

Occupational therapy (OT) as a profession is unique within the medical community in the way in which it utilizes occupations as therapeutic modalities. Occupational therapists pride themselves on their ability to break down a task that an individual has difficulty with and subsequently assist them in gaining independence in that area. Many current OT theorists are studying the phenomenon linking the mental and physical benefits of engagement in occupational activities. What researchers have found is that engagement in occupations helps to increase motivation, endurance, self-esteem, physiological healing of tissue, and many other areas of an individual's life. Although occupation is a key component to the practice of occupational therapy, often the use and reference to occupation is lost with the busy shuffle of everyday life as a practicing therapist.

Hand therapy is a subspecialty of both occupational therapy and physical therapy; essentially therapists that practice in this area utilize philosophical and theoretical ideations from both disciplines. Physical therapy brings information to the profession that concerns physiological healing and biomechanical functioning of the upper extremity to assist in rehabilitating hand illness and/or injury. Occupational therapy brings the knowledge of occupational and psychological components of hand skill, functional performance, activity analysis, and occupational assessment. Both viewpoints are needed for the rehabilitation of a hand or upper limb. When combined, all components work extraordinarily well on increasing function after injury and illness.

Occupation-based therapy, be it in hand therapy or in any other area of OT practice is somewhat complex. Often, utilizing occupation-based treatment planning, intervention, and home programming takes a great deal of time and energy on the part of the therapist. Extra time is needed for research, designing, and implementing an occupation-based approach to your services. This can lead to increased work-related stressors such as fatigue and frustration from pursuing and advocating treatment that is currently not accepted commonly within the larger hand therapy context. These stressors can decrease a therapist's morale and attitude toward work.

Establishing an occupation-based approach to practice becomes increasingly difficult when you are an entry-level or novice therapist. New therapists in the area of upper extremity rehabilitation have an incredible amount of learning relating to intervention protocols, technology for intervention, and administrative or reimbursement practices. A new therapist may find the extensive information involved with hand therapy as quite overwhelming and difficult. This makes developing or adding an occupation-based approach to a treatment area especially challenging.

What this guide intends to do is help the new therapist to organize, reflect, and implement the kind of practice that fits their facility as well as their values of occupational therapy practice. This guide will assist the entry-level or novice hand therapist in establishing and implementing an occupation-based approach to their newly evolving practice. Establishment guidelines and tips for success will be provided to the reader for the implementation of an occupation-based hand therapy practice.

Occupation-based Practice: Getting Started

Implementation of an occupation-based hand therapy program involves a few extra steps and responsibilities and may require extra time on behalf of the therapist for organization. The new therapist decides upon what specific style and approach that is fitting for them and their facility. Before implementing this new approach into your practice, begin with an occupation-based theoretical model to structure the way one organizes and implements their treatment plans and interventions. There are quite a few occupation-based theories available with different aspects that work well for a variety of facilities. Some examples are the Model of Human Occupation (Kielhofner, 1985), Occupational Adaptation (Sckade & Schultz, 1992), and the Occupational Performance Process Model (Fearing, Law, & Clark 1997; Law, Baum, & Baptiste, 2002). The Occupational Therapy Practice Framework (American Occupational Therapy Association, 2002) is a great tool to assist with structuring the therapy practice and language.

For this particular guide, the Occupational Performance Process Model (OPPM) was chosen as a basis, due to its “method to ensure that client-centered principles (as well as) the person-environment-occupation relationship is at the core of occupational therapy practice” (Law, Baum, & Baptiste, 2002, p.107). The model centers around occupational performance through the three contributing factors of person, occupation, and environment. This can assist the therapist in comprehensively looking at all aspects of the individuals they serve. This theoretical approach eliminates the narrow focus on just illness or injury that may accompany traditional hand therapy practice within a medical model. The OPPM has seven stages that flow well together and provide the therapist

with increased comfort levels when working in a client-centered occupation-based manner (Law, Baum, & Baptiste, 2002).

Initial Evaluation Process

Upon initial contact with a new client, the therapist establishes rapport in order to gain a trusting and open relationship with the client. This open relationship will allow the therapist to obtain the essential information needed to provide the proper client-centered occupation-based hand therapy. Being relaxed, using appropriate humor, and fully explaining who you are and what you can do to help are simple ways of allowing the client to feel more comfortable with sharing personal things about their life.

Building Rapport

- Smile - Be aware of what your nonverbal communication is telling the client. Are you interested in what they have to say?
- Use appropriate humor- Humor often breaks the ice and allows the client to feel at ease. Be sure to use common sense and to be culturally sensitive as clients may be easily offended at the initial contact phase.
- Explain occupational therapy/hand therapy- “Knowledge is power”, as is the common saying. When the client has knowledge of what is going on, they feel they have more control and feel more comfortable with the therapy process.
- Being an Active Listener- Using eye contact and actively engaging in a conversation allows the client to feel that you appreciate what they have to say. Don't write extensive notes or read a chart while listening to a client.

Stage one: Name, Validate, and Prioritize Occupational Performance Issues

According to stage one of the OPPM, the first step in an occupation-based practice is to make an initial assessment of all aspects of the client's life. The therapist may utilize the Canadian Occupational Performance Measure (COPM) (Law et al., 1990) and other occupation-based assessment tools such as the Occupational Performance History Interview-second version (OPHI-II) (Kielhofner et al., 1997) or the Occupational Questionnaire (OQ) (Smith, Kielhofner, & Watts, 1986) to assist with evaluation. These assessments give the therapist guidance in gathering information regarding the client's individual analysis of their occupation, overall occupational history, and their current use of time in daily activities. The therapist may also construct a semi-structured interview addressing all areas related to occupation, person, and environment. An example is provided in Appendix A. The therapist should focus on gaining insight to occupational performance issues relevant to the individual. The therapist should ask the client what things are challenging and hard to accomplish because of the hand injury or illness. This is a good time to ask the client about issues related to leisure time and interests. Really get to know as much about your client's occupations as you possibly can. The issues that are brought up may be key factors for current therapy or may not be significant until the future. Either way the information gathered in this session is essential for developing and implementing effective treatment and rapport. The initial discussion of occupation will set the stage for creating occupation-based intervention and home programs, making them easier to accomplish.

After collecting the data from the client, both the therapist and the client should go through and prioritize the occupational performance issues together. Often the client

and therapist's views on what is important and what can wait until later are different. This may cause a dilemma in the therapy process. This is where the importance of the client-centered aspect of this approach comes into play; people differ on what is important and meaningful in their lives. The therapist can explain and educate the client on what you see as important and why, but ultimately let the client have the final say on what is to be the focus in therapy intervention. When finished validating and prioritizing a list of the client's occupational performance issues, both the client and the therapist will have a better understanding on where they need to go next to initiate successful treatment.

Collecting and Prioritizing Data (Law, Baum, & Baptiste, 2002, p.107)

- Listen to what the client understands, values, and chooses
- Help the client see what might be possible
- Respect the client's ability to cope
- Provide Information
- Emphasize open and honest communication
- Do not overwhelm the client with bureaucracy

Stage Two: Selecting Theoretical Approaches

The next stage of the therapy process, following the OPPM (Law et al., 2002), involves the selection and implementation of theoretical approaches appropriate for each client. Remember that theoretical approaches are usually a collaboration of models, frameworks, theories, and paradigms. Any approaches or theories that the therapist selects in this area should reflect on the practice and values of themselves and their facility (Law et al., 2002, p.108). The client-centered approach to hand therapy presented

in this guide is an overall philosophical approach, and is not limited to the OPPM.

Theoretical approaches to be selected for this stage can involve other models or practice theories such as the biomechanical or rehabilitative approaches.

Due to the consistency and physiological aspect of upper extremity rehabilitation, often these approaches will remain similar with every individual client. This aspect may take a little time to configure at first, but it can more than likely be used consistently with all clientele. Reviewing your selected theoretical approach can assist with clarifying and structuring intervention with new and unfamiliar circumstances. A therapist should never completely forget about this step when assisting a new client. It is also important for the therapist to briefly educate the client on the selected approach so that they have an idea of how things are organized and run at your facility.

Stage Three: Identify Occupational Performance Components and Environmental Conditions

The third stage of treatment according to the OPPM (Law et al., 2002) is to identify and list out the performance components and environmental conditions that are contributing to the occupational performance issues identified earlier. This stage can be included in the initial interview or may be saved for another therapy session. This is where the therapist takes time to ask about specific symptomology that lead to dysfunction in the identified occupational performance issues. The therapist should remain consistently focused on how these performance components lead to the dysfunction in the client's occupation. This stage also allows the therapist to gain a better perspective of what the client's home and work environments are like. Having knowledge

of the environment can assist the therapist in creating more effective home programs or interventions that correlate with the actual activities the client does on a daily basis.

Stage Four: Identify Strengths and Resources

The therapist will want to assist the client in reflecting on the strengths and resources the client brings to the therapy. This is also a good time to reiterate the strengths and resources the therapist brings to the encounter as well. When the client knows his or her strengths as well as the strengths of the therapist, intervention appears achievable. The therapist has the ability to give the client examples of how the client can utilize their strengths and/or resources to help achieve success sooner and more effectively. This stage is the last assessment and data gathering stage of the OPPM. After capturing all aspects of the client's occupation, performance in the occupations, and occupational context, the therapist has the essential data required to develop and implement an effective treatment plan and home program that will be of total interest to the client. The client-centered approach to this assessment process will allow the client to feel more in control and more motivated throughout the entire hand therapy intervention (Law et al., 2002).

Stage Five: Negotiate Targeted Outcomes and Develop Treatment/Action Plan

The steps involving treatment planning do not, and really should not be done without input from the client. Stage five of the OPPM (Law et al., 2002) looks at negotiation of the targeted outcomes and the development of the treatment or action plan. In this stage the therapist and the client collaboratively develop targeted outcomes, which “are [outcomes that are the] end result of the therapy intervention as seen by the client and the therapist together” (Law et al., 2002, p.115). These outcomes should be stated

clearly so that both the therapist and the client can fully understand the goal. The outcomes should be clearly written in terms of measurability so the client and therapy can easily see if the goal was accomplished.

After the targeted outcomes are fully established and agreed upon by the therapist and the client, an action/treatment plan should be created to demonstrate what will be done to achieve the stated outcomes. The plan should “focus on resolving the issues related to performance components and/or environmental conditions that are limiting [the client’s] occupational performance” (Law et al, 2002, p.115). While involving the client as much as possible the therapist will create an action/treatment plan that states what both the hand therapist and the client will do specifically to help achieve success with the targeted outcomes. This way both the therapist and the client will have clearly defined roles that can easily be referred to later. The Home Activity/Occupation Log provided in appendix B is intended to begin the collaborative planning between the therapist and the client.

Stage Six: Implementing Treatment/Action Plan through Occupation

The sixth stage of the OPPM (Law et al., 2002) which involves implementation of occupation-based interventions is a challenging area for entry-level therapists to construct and implement in their clinics. Due to an extended time requirement for physical agent modalities and other physiological treatments of the hand, many entry-level therapists can feel overwhelmed and not know when they will have time to formulate occupation-based interventions. One thing that the therapist has to remember is that simply having a focus on the targeted outcomes and occupational performance is key to increasing occupation-based hand therapy interventions.

Oftentimes the context of hand therapy clinics restricts the in-house interventions to simulated occupations and purposeful activities. The therapist can also increase the use of occupation by fully explaining to the client how these purposeful activities correlate to occupations experienced in their everyday lives. Home programming that focuses on occupation rather than exercise contributes to an increased focus on occupation-based treatment. Occupation-based intervention can “best be achieved through the selection of activities that help improve a performance component and also have meaning to the person” (Law et al., 2002, p.116) As long as the focus remains on achieving the targeted outcomes through involvement of the client’s daily occupations, interventions will remain occupation-based.

Therapists should not be afraid to ask the patient for their suggestions for occupation-based interventions; the therapist shouldn't have to do all the work. Having the client problem solve with the therapist on intervention strategies will help the client gain essential adaptation and problem solving skills necessary for independence after therapy is complete. Ideally interventions such as gardening, fishing, sports games etc. would be perfect intervention activities to increase strength and endurance, but these are hard to accomplish in a clinical setting. A therapist can utilize these occupational areas for intervention in the home program (Law et al., 2002). Use appendix B as a guide to collaboratively explore occupation-based intervention and daily engagement in occupation.

Again, collaboration with the client is essential to assist in creating a home program that is both beneficial physiologically as well as achievable and motivating for the client. The therapist and client can figure out occupation-based activities the client

can do at home that would be meaningful but also help with decreasing dysfunction. Every individual is different and will have different activities they would like to accomplish. Tying in the targeted outcomes and occupational performance issues will further the success of increasing function in occupational performance. The therapist will need to utilize their task analysis and activity breakdown skills to be able to formulate which occupational activities will be beneficial to the client.

Stage Seven: Evaluate Occupational Performance Outcomes

The final stage of the therapy process involves evaluating the occupational performance outcomes and the identifying of any further needs. Similar to all the other stages of this model the therapist and client together evaluate the current occupational performance and decide if the issues have been resolved. Often this step doesn't take too much time considering that the therapist and client usually have a good idea of any significant increases or losses in functioning. However, it is still important to analyze data from performance component assessments and documentation from all aspects of the treatment process. This demonstrates to the client that they have made progress (even if it is small) and it also allows the client to feel they are still in control of their health even if they have to discontinue services. Often clients can have anxiety about discontinuing therapy, so it is essential for the therapist to evaluate their outcome and explain to them what may lie in the future.

Targeted outcomes are not always going to be completed adequately. The client may still have signs of limitation in occupational performance issues within their daily lives. If this should happen and it looks like the client would benefit from more therapy the therapist should again consider the opinion of the client when making the decision to

continue treatment. When services need to be continued, make sure to readdress targeted outcomes and performance issues. The client will benefit from looking at their performance issues and outcomes to see if their priorities have changed for treatment.

Other Areas of Consideration

Time

More often than not, time is going to be a factor for new therapists. It takes extra time to learn the physiological aspects of tissue healing, the operation of new equipment and technology, and the policies and procedures of the new facility. This can lead to difficulty with the implementation of an occupation-based practice. Amini (2004) suggests that therapists utilize splinting time or “down time” with physical agent modalities to implement in-depth interviews or portions of the COPM. Data can easily be gathered or delivered to clients while they are participating in preparatory therapy techniques that don’t require their full attention.

Continuing Education

Overall, therapists need to remain informed about what is available in regard to practice and intervention approaches. We are responsible for providing our clients with the very best treatments available. If therapists don’t stay current and utilize new information and research, their treatments will never advance and their patients will not receive the best care possible. Entry-level therapists have the advantage of leaving an enriched learning environment with the most up-to-date information available. In no time your current information will be a thing of the past, and action will need to be taken to continue as a successful professional. Therapists can stay current with occupation-based procedures through continuing education, reading current occupational therapy literature,

and participation in professional organizations. Publications like the *American Journal of Occupational Therapy*, *Journal of Hand Therapy*, *OT Practice*, and *Advanced for OT magazine* are great resources for information regarding literature and continuing educational opportunities in the area of occupation-based practice.

Summary and Overview of Practice Guide

The process of rehabilitation to the upper extremity can be overwhelming for a new therapist. Much of the material presented here can help guide an entry-level therapist through the task of utilizing the knowledge of occupation-based therapy gain through their OT education. This guide was meant to help the therapist balance the new physiological information being learned with the more familiar occupational therapy information to enhance their hand therapy practice.

CHAPTER V

SUMMARY

Advances in technology and research associated with the physiological healing of tissues are crucial to the rehabilitation of the upper extremity. Clients of hand therapists depend on them to provide the most up-to-date and well researched services available. A wide variety of experimentation and research has been conducted on current technology and practice trends/procedures to ensure that they are beneficial and safe for the client and the therapist to use. Although these technical advances are beneficial and necessary for healing of tissue, they only focus on a limited aspect of rehabilitation. Holistic interventions are left out of much of the current trends and technologies surrounding hand therapy practice today. Specific interests, role identification, meaningfulness, purposefulness, and daily occupations are aspects of comprehensive hand rehabilitation that can be absent within these current approaches.

Occupation-based practice is an approach to treatment that helps a therapist focus on the other aspects of a client that are important to comprehensive rehabilitation of the upper extremity. Research compiled within the Chapter II literature review gives evidence for the benefits and importance behind the inclusion of occupation in therapy settings. However evident, this aspect of hand therapy is often minimally assessed and/or addressed. This reluctance is especially noted in entry-level or novice therapists that are overwhelmed with learning the complexities of the upper extremity subspecialty of occupational therapy.

Although benefits are noted in the literature for applying occupation to hand therapy practice, there are still gaps in research apparent in the areas of occupation-based

assessment, intervention, and home programming. More is needed in the areas of qualitative and quantitative research of the effectiveness of occupations on the physiological and psychological aspects of healing and dysfunction. Qualitative studies would help the profession of hand therapy to better identify specific strengths and limitations occupation-based therapy may contain. More specific quantitative studies can be formulated from the qualitative data to assist in justifying the effectiveness on this approach and help market the change in practice to other therapists.

Prior to creation of each product within this scholarly project, an analysis of the strengths and limitations within the literature were taken into consideration. The information gathered through the extensive literature review in Chapter II prompted the development of three suitable products that address the use of occupation-based practice for entry-level hand therapy practitioners. These products, as presented in Chapter IV, Appendix A, and Appendix B are beneficial to the therapist for guidance in the development and implementation of an occupation-based approach within their own practice. More specifically, the initial assessment interview guide (see Appendix A) and an activity/occupation log (see Appendix B) are presented as tools and examples to assist therapists with directly applying a more occupation-based approach to assessment, intervention, and home programming.

Although useful for some therapists, these products may not fit the style of every hand therapist or setting/facility. The future plan for these products includes the distribution to area entry-level or novice therapists interested in pursuing the area of upper extremity rehabilitation. Further research and studies may be conducted on the products to enhance effectiveness and assist with contributing to the body of knowledge

in the area of occupation-based hand therapy practice. Other future actions may include presentations to local and national professional associations such as the North Dakota Occupational Therapy Association (NDOTA), Minnesota Occupational Therapy Association (MOTA), and the American Occupational Therapy Association (AOTA). Overall, the end goal is to increase the utilization of occupation-based programming within hand therapy practice as well as to increase the awareness of the benefits associated with this approach to practice.

APPENDICES

Appendix A

Question Guide
Occupation-Based Initial Assessment

Name: Age: Gender: M or F Place of Employment: (if applies)	Hand Dominance: R or L Past injury/illness: Do you Drive: Y or N
<p>A. Give me a general description of the activities you do around your home on an average day, including self-care routines?</p> <p>B. Which, if any, of these activities are difficult for you in regards to your illness or injury?</p>	
<p>A. When it comes to upkeep or maintenance of your home, what activities are you responsible for completing?</p> <p>B. Which of these activities are you currently having difficulty completing?</p>	
<p>A. Describe for me the activities and tasks you perform while at work or in school? (if applies)</p> <p>B. Describe the activities that are difficult for you at work or in school.</p>	

<p>A. What sports, leisure, and/or recreational activities are you normally involved with throughout the year?</p> <p>B. Please describe any limitations in this area.</p>	
<p>A. On an average day how extensively do you use technology such as computers, cell phones, PDA's etc.; and what activities do you do throughout your day that involves these activities?</p> <p>B. What limitations with technology have you experienced from your illness/injury?</p>	
<p>Are you a parent, guardian?</p> <p>OR</p> <p>Do you provide care giving responsibilities?</p>	<p>A. If yes, please describe the activities you perform when providing care.</p> <p>B. Are any of these activities/responsibilities compromised by your illness or injury? If so, how?</p>
<p>Driving can be difficult when ill or injured; are you currently struggling with driving and with what specific tasks are you having the most problems?</p>	
<p>Injury and illness can often have an effect on an individual's relationships. How do you feel your current relationships are going at home, in the community, and at work?</p>	
<p>Many people can become frustrated or upset when they have an injury or illness. How has your illness or injury affected your mood, personality, or attitude?</p>	

APPENDIX B

Home Activity/Occupation Log

Daily Activity/Occupation.	Focus of your activities. (Increasing ROM, strengthening etc.)	Strengths noted in function. *	Limitations noted in function. *	Collaborative Recommendations.

* These sections will be done at home and reviewed with therapist at next scheduled treatment session. Other sections will be filled in together by client and therapist

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